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Is Unmitigated Communion Related to Depression and Anxiety?

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(TITLE)

BY

Brett A. Vacek, B.A.

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Is Unmitigated Communion Related to Depression and Anxiety?

Brett A Vacek

Eastern Illinois University

Abstract

Unmitigated communion is the focus on others to the exclusion of the self. This innate principle has been linked to depression in numerous studies. However, this construct has yet to be linked with rumination, worry, or even social anxiety. This paper reviews the literature on unmitigated communion, including recent studies that have dissected the variable into separate components (UC-self and UC- other) that could help in the identification of its dysfunctional properties. Furthermore, this paper will seek to determine whether unmitigated communion is connected to receiving or providing instrumental or emotional support, and whether this acts as a moderator in the relationship between unmitigated communion and depression and social anxiety. The same application will be tested for the link between unmitigated communion to social anxiety and depression through the moderation of rumination and worry.

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Is Unmitigated Communion Related to Depression & Anxiety?

Unmitigated communion is comprised of three main components: overinovlement with others, self-neglect, and externalized self-perception (Helgeson & Fritz, 1998). This concept was broken down by Bassett & Aubé (2013) to unmitigated communion-self and unmitigated communion-other. The unmitigated communion-self concept involves an egotistical motivation in helping others, while unmitigated communion-other component involves an altruistic motivation. Unmitigated communion-self has been shown to be associated with depression and other negative outcomes (Bassett & Aubé, 2013; Bassett, Bartz, Bonnett, Mix, & Scavo, 2013). Unmitigated communion was developed to explain the gender differences in depression (Helgeson, 1994). Therefore, this concept has not been considered in the discussion of anxiety, primarily social anxiety. This study focused on this absence within the literature and sought to demonstrate the effectiveness of the breakdown of unmitigated communion into unmitigated communion-self and unmitigated communion-other.

Literature Review

Communion and Unmitigated Communion

Communion can be described as an individual's pursuit in forming and maintaining relationships with others (Bruckmüller & Abele, 2013); moreover, communion can also be conceptualized as a general focus on others and their feelings (Fritz & Helgeson, 1998). Persons high in communion are expected to have more affiliation with others, which reduces the risk of physical illness, increases marital satisfaction, and provides greater perceived support (Helgeson & Palladino, 2012). Caring for and helping others in any capacity can be designated as communion. Communion is viewed as a personality trait and often paired with another trait – agency.

Agency is when the individual focuses on the self and can be described as individuation in the form of personal growth, demonstration of skills, and accomplishment. Personality traits of individuals high on agency include elevated dominance, power, and ambition. Research has demonstrated that communion is more important in developing connections with others, reducing loneliness, satisfying relationships, and insight into others feelings (e.g. Abele & Wojciszke, 2007; Bruckmüller & Abele, 2013; Ybarra et al., 2008). Individual personality characteristics are constituted by communion tendencies more so than by agency tendencies (Abele, 2003; Uchronski, 2008). When describing another person, inferences are made based on their communal rather than agency qualities (Abele &Wojciszke, 2007; Brambilla et al., 2011; Cislak & Wojciszke, 2008; De Bruin & Van Lange, 1999, De Bruin & Van Lange, 2000). Communal traits are also used to a higher degree when individuals are asked to predict how others will behave (De Bruin & Van Lange, 1999; Kenworthy & Tausch, 2008).

These two personality traits can be placed on different dimensions and are sometimes referred to in the literature as the "Big Two" (Abele & Wojciszke, 2007; Bruckmüller & Abele, 2013; Cuddy, Fiske, & Glick, 2008; Fiske, Cuddy, & Glick, 2007; Judd, James-Hawkins, Yzerbyt, & Kashima, 2005; Peeters, 2008; Paulhus & Trappnell, 2008). The names for these two paramount aspects of personality are independent of one another, but are present within everyone (Abele & Wojciszke, 2007). Bakan (1966) theorized about "two fundamental modalities in the existence of living forms, agency for the existence of an organism as an individual and communion for the participation of the individual in some larger organism of which the individual is part" (pp. 14–15). Hence, communion and agency have been used in the literature to constitute the "Big Two." They are referred to as the "Big Two" because analyses have revealed links to the "Big Five Personality Factors." Specifically, agency is related positively to

openness and extraversion and is related negatively to neuroticism (Digman, 1997; Hegleson & Fritz, 2000; Lippa, 1995, 2001). Communion, on the other hand, is related to emotional stability, agreeableness, and conscientiousness (Digman, 1997; Lippa, 1995, 2001).

When communion is not balanced by agency, or a focus on the self, it takes on an unmitigated form called unmitigated communion (Fritz & Helgeson, 1998). Unmitigated communion can be defined as relinquishing one's own needs, and putting other's needs before their own even if it is at their own expense (Helgeson, 1994). An example would be missing class and not studying for finals to help a friend study for their finals.

According to Helgeson and Fritz (1998) three prominent features typify unmitigated communion: overinvolvement, self-neglect, and externalized self-evaluation. Overinvolvement within the context of UC can be described as the tendency to become excessively involved in the problems of others and bear other's burdens as their own. Additionally, these individuals feel unreasonably responsible for helping another person and cannot stop dwelling on her/his problems (Aubé, 2008; Helgeson & Fritz, 1998; Fritz & Helgeson, 1999). An example of this situation would occur when an individual high in UC is notified that another person is in distress; the person high in UC would do anything to relieve the other person's discomfort -- no matter the cost. Self-neglect is another feature of UC. These individuals become so caught up in the needs of other that they fail to attend to their own needs (Helgeson, 2003, Helgeson & Fritz, 1998). Specifically, UC has been shown to be connected to instances of self-neglect including difficulties asserting one's own needs, being exploitable, inhibiting self-expression, acting against one's wishes, and self-effacement (Buss, 1990; Fritz & Helgeson, 1998; Helgeson & Fritz, 1999). Also, self-care activities have been shown to be reduced among individuals high on UC (Fritz, 2000). Externalized self-perception is the last component of UC. Low self-esteem is

associated with UC, and this relationship is derived from their propensity to view themselves according to what others think of them (Helgeson, 1994). This process is accompanied by the belief that others view them negatively (Fritz & Helgeson, 1998). When interpersonal dilemmas arise, such as receiving negative feedback from a friend, this situation can reinforce the idea that others negatively view them.

Recently, Bassett and colleagues (Bassett & Aubé, 2013; Bassett et al., 2013) built upon Helgeson and Fritz's (1998) model of UC by separating it into two factors: UC-self and UC-other. Bassett & Aubé (2013) proposed that UC represents a disadvantageous form of self-sacrifice, as it involves refraining from attending to one's own needs for the sake of furthering another's welfare (Van Lange et al., 1997). Being self-sacrificial within relationships predicts stronger relationship commitment and satisfaction, but it can also be dysfunctional (Van Lange et al., 1997). Determining whether the self-sacrifice is functional or dysfunctional can be determined by the motivation for the act, which can be either egoistical or altruistic in nature (Batson, Fultz, & Schonrade, 1987; Batson, 2001). The need to separate functional from dysfunctional self-sacrifice, in connection to UC, led to the formation of UC-self and UC-other. UC-self is correlated positively to depression and other constructs of dysfunctionality, whereas UC-other is correlated positively to emotional and cognitive aspects of empathy (Bassett et al., 2013). Unmitigated communion is not merely a high level of communion and low level of agency (Helgeson & Fritz, 1999). To differentiate between unmitigated communion and a high level of communion and a low level of agency, it is important to remember the three components of UC. A comparison can be made between someone described as compassionate (a communion trait) but not competitive (an agency trait) to an individual who demonstrates unmitigated communion. The interactions of individuals high in communion may be quite similar to those

interactions of persons with unmitigated communion. They both may be invested in the relationship and be empathetic and compassionate. However, despite being correlated positively, communion and UC are dissimilar in numerous ways (Helgeson & Fritz, 1999). Helgeson and Fritz's (1998) three descriptors of UC described previously comprise the major contrast between communion and UC and helps explain why UC is related positively to depression and communion is not. Unmitigated communion is associated with negative outcomes (e.g., depression) whereas communion is not. Another distinguishing factor between communion and unmitigated communion is that the latter does not map onto the Five Factor Model. The only correlation between UC and factors of the Big Five is agreeableness, but this relationship is diminished when controlling for communion (Helgeson & Fritz, 1998). An all-encompassing descriptor of those high in unmitigated communion would be submissiveness (Ghaed & Gallo, 2006; Buss, 1990), which further helps differentiate communion and UC. A high level of communion and low level of agency still includes a degree of agency, or the focus on the self and separation. If unmitigated communion is the absence of agency, as evidenced by the aspect of self-neglect, then a high level of communion and low level of agency cannot mirror this construct.

Unmitigated communion is similar in certain ways to sociotropy, a concept first introduced by Beck (1983). Sociotropy is characterized by social dependence, where the individual yearns for the attention and approval of others (Fairbrother & Moretti, 1998). This construct has been shown to also be associated with higher levels of depression across a plethora of studies, as is unmitigated communion. Helgeson (1994) developed unmitigated communion to help explain gender differences in depression. Beck also had the same goal in mind when he developed sociotropy and autonomy. Autonomy aligns with unmitigated agency, with its self-

preserving aspects of controlling situations and accomplishing goals. In a study by Bruch (2002) both unmitigated communion and agency were correlated with sociotropy and autonomy. Results indicated that unmitigated communion and sociotropy were highly correlated with one another (r = .58), and the same was observed for unmitigated agency and autonomy to a smaller degree (r = .22). When unmitigated communion was entered in a stepwise hierarchical comparison with autonomy and sociotropy entered first, unmitigated communion was no longer significant in predicting depression.

Despite these findings, unmitigated communion and sociotropy theoretically have distinctions between one another. First, unmitigated communion revolves around a central theme of overinvolvement with others' problems to the neglect of one's self. Sociotropy has been conceptualized as absorption in forming and maintaining supportive relationships. Thus sociotropy is in direct opposition to unmitigated communion, which exemplifies the desire to provide support rather than receive support from others. Fritz & Helgeson (1998) solidified this point by asserting, "UC has been linked with support provision, but it has shown no association with perceived support or received support . . . those who score high on UC may have 'imbalanced' relationships with others, in which they provide support to others but do not necessarily receive support in return" (p. 126). Their results are in concordance with this statement in that persons high in unmitigated communion were distressed over receiving support. This association accounted for 53% of the relation between unmitigated communion and depression. However, their study did not find an association between comfort and providing support. Few studies have broken down social support into receiving and providing in conjunction with sociotropy as with unmitigated communion. Simply, all that is examined is whether social support is correlated negatively or positively with sociotropy, which the findings

have indicated that a negative relationship exists (Bakhshani, 2007; Hicks & Lorensini, 2012). What is important to note as well is that social support has actually been shown to be a two-part construct that includes both emotional and instrumental support. A major difference between sociotropy and unmitigated communion may be in the way social support is felt or provided through each of these aspects. Examining each of these may support the notion that these are contrasting components of personality.

Rumination

The most accepted definition of rumination comes from the response styles theory formulated by Nolen-Hoeksema (1991). Rumination consists of a pattern whereby the person has repetitive typically negative thoughts, often focused on past failures or events (Nolen-Hoeksema, Wisco, & Lyubomirsky, 2008). An absence of action defines the individual who ruminates. The thoughts themselves are the not the object of importance, rather it is the insistent mulling over the problems or feelings. Rumination causes negative affect to be maintained and even exacerbates it through several mechanism including increases in negative thoughts and actions, decreases in sufficient problem solving, and lethargy in activities that induce positive affect (Olatunji, Naragon-Gainey, & Wolitzsky-Taylor, 2013).

Rumination is correlated positively with numerous negative cognitive styles, such as hopelessness, pessimism, self-criticism, low mastery, dependency, sociotropy, neediness, neuroticism, and negative inferential or attributional styles after controlling for depression (Nolen-Hoeksema et al., 2008). Nonetheless, rumination contributes a unique amount of variance to depression over and above the variables listed previously and even after controlling for several of these including neuroticism and perfectionism. Olatunji et al. (2008) points out that the distinctive features of this construct remain vague. For example, rumination and

obsessions both are constituted by a marked repetitive nature that equate with negative affect that cannot be dissolved. One difference between the two is the style in which these are carried out. Rumination is verbal in nature (Nolen-Hoeksema, 1991), whereas obsessions arise as thoughts, images, or impulses (Turner, Beidel, & Stanley, 1992). Another distinguishing factor is that rumination does not prompt an individual to perform an operation as much as obsessions do (Wahl et al., 2011).

Through a factor analysis of the Ruminative Response Scale, two types of rumination have surfaced: brooding and reflection (Treynor, Gonzalez, & Nolen-Hoeksema, 2003). Brooding can be conceptualized as a passive comparison between present circumstances and some insurmountable standard. Treynor and colleagues (2003) went further on to illustrate brooding as "a broader range of thoughts than self-criticism . . . defined as 'moody pondering'" (p. 252). An example of this type of rumination would be wondering why problems are abundant within the self, but not for others. Reflection, on the other hand, represents an inward shift to overcome depressive symptoms through cognitive problem solving. Brooding is related to depression and anxiety to a higher degree than reflection (Olatunji et al., 2013). This relationship though does not indicate that reflection is an adaptive ruminative mechanism; it is just less maladaptive than brooding (Burwell & Shirk, 2007). Due to the problem-solving nature of this subtype, there has been a link to suicidal ideation (Surrence, Miranda, Marroquin, & Chan, 2009; Miranda & Nolen-Hoeksema, 2007). Treynor and colleagues (2003) stated that, because of reflection's longitudinal decrease of depression, it could be adaptive. However, the meta-analysis of Olatunji and colleagues (2013) demonstrated that the effect sizes for the relationships between reflection and both anxiety and depression symptoms were positive and significant.

Worry

Borkovec and colleagues (1983) had one of the first studies to examine worry and its connection to anxiety. Worry is operationalized as "a chain of thoughts and images, negatively affect-laden and relatively uncontrollable" (p. 10). This phenomenon is cognitive in nature, which accompanies the physical components of anxiety (Andrews et al., 2010). Employed as a coping strategy, worry often is used to avoid possible future threats (Barlow, 2002), making this a future-oriented construct. Worry may revolve around past events, but these previous incidences serve as sources of anxiety for the future. To illustrate, making a social blunder in public later serves as a source of worry for future interactions.

As stated above, worry is utilized as a coping strategy that provides individuals with a false sense of taking action against danger. In actuality, these threats are unlikely to materialize (Borkovec, Alcaine, & Behar, 2004). The relief of avoiding catastrophes that worry brings is not only fictitious, it actually heightens negative affect and arousal, and triggers adrenaline (Newman, Llera, Erickson, Przeworski, & Castonguay, 2013). Worry also can lead to multiple psychiatric disorders, perpetuation of distress, lapses in concentration, spur interpersonal difficulties, and interrupts sleep (Kertz, Bigda-Peyton, Rosmarin, & Björgvinsson, 2012; Newman et al., 2013). At moderate levels, worry can be a normal process that is temporary and more controllable than the extreme levels of worry that afflicts individuals with Generalized Anxiety Disorder, which includes worry as the central symptom of the disorder (Ruscio, 2002).

Worry and rumination are highly correlated with one another and share many characteristics (Nolen-Hoeksema et al., 2008). Both are associated with cognitive rigidity and present issues with distraction from negative stimuli (Nolen-Hoeksema & Davis, 1999). Additionally, both are repetitive schemes of abstract thought that concentrate on the self, and

constitute an overgeneralized thinking style (Borkovec et al., 2004; Watkins, Teasdale, & Williams, 2000). For example, the presence of terms such as "always" and "never" in worry illustrate this overgeneralized thinking style. Such thoughts would include, "I will always do something embarrassing," which also points to the abstractness due to the cross-situational nature of this statement (Stöber, Tepperwien, & Staak, 2002). Worry and rumination share similar consequences including the intensifying of both depression and anxiety (Nolen-Hoeksema et al., 2008). Worry has been shown to partially account for the associations of both depression and anxiety with depression (Olatunji et al., 2013). Both worry and rumination involve unconstructive repetitive thought that precipitates the risk of developing depression and anxiety (Watkins, 2008).

There are differences between the two variables. For example, worry revolves around future events, and the threats that may occur (Barlow, 2002). Rumination involves repetitious examination of past events; wondering why they occurred and the meanings ingrained in each (McLaughlin, Borkovec, & Sibrava, 2007). The main difference between rumination and worry is the amount of certainty and controllability that people experience when engaging in each. When worry is present, individuals are not certain about the outcome of the event, but they feel as if the event is controllable afterwards. In their environment, worriers are not sure what might happen if they go in public, but they can feel control by not going into public. Nonetheless, rumination occurs when individuals are more certain about the event that happened, but see the situation as uncontrollable (Nolen-Hoeksema et al., 2008). In their environment, ruminators already know what will happen if they go in public, but this outcome is unmanageable.

Social Support

Social support has been defined as the advantageous interpersonal interactions that safeguard people from the potential negative effects of stressful circumstances (Cohen & McKay, 1984). This view of social support derives from the "stress-buffering hypothesis" which states that social support guards individuals from the pathogenic effects of high levels of stress; whereas social support is significantly less important for those with low levels of stress (Cohen & Hoberman, 1983; Cohen, Mermelstein, Kamarck, & Hobermna, 1985; Cohen & Wills, 1985). In this regard, social support can either be given or received. Giving and receiving social support have both been linked with positive health effects including more positive affect, and less depression and anxiety (Väänänen, Buunk, Kivimäki, Pentti, & Vahtera, 2005; Brown, Nesse, Vinokur, & Smith, 2003; Biehle & Mickelson, 2012). The majority of the research on social support focuses on the benefits of perceived social support, which has been distinguished from actual received support (Bal, Crombez, Van Oost, & Debourdeaudhuij, 2003). The majority of studies focus on perceived social support through self-report measures, because authentic social support cannot be captured through these types of measures. Interestingly, Helgeson (1993) found *perceived* social support has a greater impact on adjustment to physical problems (e.g., cardiac issues) than did *authentic* support. Perceived social support has been identified as preventing depressive disorders (Stice, Ragan, & Randall, 2004; Khatib, Bhui, & Stansfeld, 2013). It consistently shares a negative correlation with depression throughout a plethora of studies (e.g., Wang & Gan, 2011). On the contrary, giving social support has been inadequately examined and scales used in these studies often attempt to measure it with a single item (Brown et al., 2003). Benefits have still been found for providing social support, which confirms the "bidirectional support hypothesis" (Maton, 1987). This hypothesis supports the notion that a

balance should be seen in the levels of giving and receiving support. A degree of equilibrium should be attained even for giving social support, which may bolster life satisfaction, yet too much can induce distress (De Jong Gierveld & Dykstra, 2008; Liang, Krause, & Bennett, 2001).

Social support can also be separated into functional and structural components (Timmerman, Emanuels-Zuurveen, & Emmelkamp, 2000). Structural social support refers to the size, composition, closeness, and frequency of the support (Semmer et al., 2008). In addition, structural social support includes the degree and diversity of social roles within the support system (Gallo et al., 2015). Cohen and Wills (1985) found a main effect of structural social support on well-being. Functional support represents the buffering component of stress that serves to weaken the association between stress and depression (Bowen et al., 2013). This type of support can be viewed as the awareness that support resources, such as material aid, emotional support, instrumental support, would be accessible if desired (Gallo et al., 2015). Another way of understanding functional support is that it involves the actual assistance that is provided from one individual to another.

Social support can then be consolidated into two forms: emotional support and instrumental support (Buunk, 1990; Cutrona & Russell, 1990; Wills & Shinar, 2000; Semmer et al., 2008; Kim, Kim, & Nochajski, 2014). When providing support, an individual may either focus their attention on another's emotions through expressing empathy, sympathy, and caring (emotional support) or they help a person through tangible means (instrumental support). Emotional support has also been dubbed as "nurturant" support, and instrumental support also has been referred to as "action-facilitating support" (Cutrona & Suhr, 1994). Also included in emotional support is providing esteem to another person. This process involves giving compliments, taking the problem seriously, and expressing veneration (Zellars & Perrewé,

2001). Instrumental support involves helping or completing a task that is stressful for the person. Additionally included within this component of support is informational support, which is intermittently made distinct from instrumental support in the literature (Cohen, 2004). Informational support comprises of guidance, advice, or salient information that allows the individual to cope with hardships. Semmer and colleagues (2008) found that the majority of instrumental support transactions also held an emotional meaning. The implication is that the emotionality facet of social support is the most essential ingredient. However, Cohen (2004) states that emotional support was effective in numerous types of stressful events, and instrumental support differed in its responsiveness to certain needs evoked by an event. Each type of support has been shown to act as a buffer against depression separately, but more evidence exists for emotional rather than instrumental support (Kim et al., 2014).

Despite the numerous studies on the link of perceived social support to depression, few studies exist on the connection between rumination, depression, and social support. A longitudinal study conducted by Nolen-Hoeksema and colleagues (1994) found that perceived social support shared an inverse relationship with rumination. In turn, the positive relationship between social support and depression was fully mediated by rumination. Nolen-Hoeksema and Davis (1999) found similar results in a longitudinal study with the relationship between social support and rumination.

Similarly, as with depression, perceived social support and social anxiety share an inverse relationship with one another (Festa & Ginsburg, 2011; La Greca & Harrison, 2005; La Greca & Lopez, 1998). Social support was shown to have a protective effect against developing social anxiety independent of a biological vulnerability for this disorder (Reinelt et al., 2013). Only one study has revealed a relationship between social support and worry (Waters, Liu,

Schootman, & Jeffe, 2013). No study to our knowledge has examined the relationship between social support, worry, and social anxiety to determine whether worry mediates the relationship between social support and social anxiety.

Current Study and Hypothesis

The primary goal of this study is to determine whether unmitigated communion is related to (1) rumination and depression and (2) worry and social anxiety. Social support has been shown to be both a moderator (Brausch & Decker, 2014; Zhou, Zhu, Zhang, & Taisheng, 2013; Holt & Espelage, 2005) and a mediator (Stewart et al., 2014; Greco et al., 2014; Ze-Wei, Peng, & Tian, 2014) of depression and anxiety. Rumination has been shown to be a mediator between social support and depression, but worry has not been tested as a mediator between social support and anxiety. The current study will add to the literature by testing this mediation model and will provide insight on whether social support or worry has a more significant impact on anxiety. UC has been linked with providing support, comfort providing support, and discomfort receiving support (Helgeson, 1994; Helgeson & Fritz, 1996; Fritz & Hegleson, 1998). No further implications have been found with the connection between support and unmitigated communion. The shift in the literature to examining two dimensions of social support (i.e., emotional and instrumental), provides further reason to explore this area. Also, with the current literature on UC stating the construct can be dissected into an UC-self and UC-other orientation there is reason to believe that the two orientations may load on different factors of social support.

Both worry and rumination are correlated positively with one another, suggesting a need to examine whether these constructs are correlated with UC and the extent and direction of this relationship. An inverse relationship has been found between social support and both rumination (Puterman, Delongis, & Pomaki, 2010) and worry (Waters et al., 2013). What has yet to be

examined is the relationship between unmitigated communion and the variables of rumination and worry.

Unmitigated Communion has consistently been connected with depression, but the extent of this relationship when other factors of depression (e.g., rumination) and anxiety (e.g., worry) are taken into account remains unclear. Using a hierarchical step-wise approach to predict depression and anxiety (i.e., using rumination, social support, and worry) plus UC will shed more light on the importance of UC. Two studies (Nolen-Hoeksema & Jackson, 2001; Bruch, 2002) have employed similar methods previously, but neither included this set of variables presented within this study.

Hypothesis 1 will examine the relationship of (1) UC and depression and (2) UC and anxiety. UC is predicted to be correlated positively with both depression and anxiety, as is consistent with previous literature (Fritz & Helgeson, 1998; Jin, Van Yperen, Sanderman, & Hagedoorn, 2010). UC-self will be correlated positively to both depression and anxiety, but UC-other will not be correlated with either depression or anxiety.

Hypothesis 2 will examine the relationships of UC with rumination and worry. UC is predicted to be correlated positively with both rumination and anxiety; this association is hypothesized due to the positive relationship documented between UC and depression. Rumination, worry, and depression are correlated positively with one another, suggesting that UC and rumination and worry also will share a positive relationship. UC-self will be related positively to both rumination and worry, but UC-other will not be associated with rumination or worry.

Hypothesis 3 will examine the relationship between UC and social support. UC is predicted to be correlated positively with giving instrumental and emotional support, but related negatively to receiving instrumental and emotional support. UC-self will be correlated positively with giving

instrumental and emotional support. UC-other will be related positively with giving and receiving both instrumental and emotional support.

Hypothesis 4 will examine the mediating role of worry in the association between social support and anxiety. This relationship needs to be tested due to the absence of this model in prior studies and the presence of mediation models of rumination between social support and depression.

Hypothesis 5 will apply two hierarchical step-wise regression models to test whether (1) UC-self predicts depression after controlling for worry, rumination, and social support and (2) UC-self predicts anxiety after controlling for worry, rumination, and social support.

Method

Participants

The sample consisted of 118 undergraduate students, ages 18 to 47 years. Almost all of the students (89.2%) fell within the age range of 18 years to 22 years (n = 132). The majority of the participants (78.4%) were female (n = 116). The breakdown for ethnicity is as follows: Caucasians (n = 97; 65.5%), African Americans (n = 39; 26.4%), Hispanic or Latino/a (n = 6; 4.1%), and biracial/multiracial (n = 5; 3.4%). Students were recruited either from the SONA pool (n = 88) or from one of three upper level psychology classes that have prerequisites (n = 78). Those who participated through the SONA pool received course credit, and those who participated through the upper level psychology classes received extra credit for participating.

Measures

Worry. Worry was assessed using the Penn State Worry Questionnaire (PSWQ; Meyer, Miller, Metzger, & Borkovec, 1990). The PSWQ assesses worry, which was designed by Meyer and colleagues (1990) as a unifactorial measure of pathological worry. The PSWQ is a self-report trait-based questionnaire consisting of 16-tems scored on a 5-point Likert scale (ranging

from 1 = "not at all typical of me" to 5 = "very typical of me"). A sample item from the scale is "If I do not have enough time to do everything I do not worry about it." Scores for each item on the scale are summed, with higher scores indicating higher levels of worry. The PSWQ has shown both high ratings of internal consistency (α's ranging from .88-.95; Startup & Erickson, 2006) and test-retest reliabilities (*r*'s ranging from .74-.92; Joos et al. 2012). Furthermore, the PSWQ has been a reliable scale in both non-clinical and clinical scales (Joos et al, 2012). This scale has also been proficient at distinguishing those who suffer from General Anxiety Disorder and those who suffer from other anxiety disorders. Convergent validity has been demonstrated through its correlations with different measures of similar constructs. The PSWQ significantly correlates with a measure of trait anxiety (van Rijsoort, Emmelkamp, & Vervaeke, 1999; Meyer et al. 1990) and with depression scores (Fresco, Heimberg, Mennin, & Turk, 2002; Meyer et al. 1990; van Rijsoort et al. 1999).

Rumination. Rumination was assessed using the Ruminative Response Scale, which is a subscale of the Response Style Questionnaire (RRS; Nolen-Hoeksema & Morrow, 1991). The RSS measures depressive rumination, or responses to depressed mood that are self-focused, symptom focused, and focused on potential reprimands and causes of the mood (Treynor et al. 2003). A total of 22 items are scored on a 4-point Likert scale (ranging from 1 = "almost never" to 4 = "almost always"). A sample item from the scale is "Analyze your personality to try to understand why you are depressed." The scores for each item are summed with higher scores indicating higher levels of rumination. The RSS demonstrates strong concurrent and predictive validity and test-retest reliability (Hughes, Alloy, & Cogswell, 2008). Some controversy ensues over whether this scale measures one- or two-factors. Studies that have found two factors distinguish between reflection and brooding (Bagby & Parker, 2001; Treynor et al., 2003).

Reflection is the attempts to problem solve cognitively to relinquish depressive symptoms. Brooding is the comparison of an unaccomplished standard to the current situation at hand (Treynor et al., 2003).

Depression. Depression was measured using the Center for Epidemiological Studies Depression Scale (CES-D; Radloff, 1977). The CES-D measures depressive symptomatology in the general population. A total of 20 items, or symptoms, assessed on a 4 point Likert scale that asks how often you have felt this way during the week (0 = "Rarely or None of the time (Less than 1 Day)" to 3 = "Most or All of the time (5 -7 Days)"). A sample item from the scale is "I was bothered by things that usually don't bother me." Scores on the CES-D range from 0 to 60, in which higher scores indicate greater depressive symptoms. Three levels have been developed to differentiate between those who are not depressed (>15), those who may be suffering from mild to moderate depression (15-21), and those who may be suffering from major depression (<22). In this regards, this scale is able to discriminate between general population samples and those who are in psychiatric inpatient care. Internal consistency for the measure is sufficient with values ranging from r = .84-.85 in the general population and r = .90 in clinical samples (Corcoran & Fischer, 1987). This scale is able to discriminate between general population samples and those who are in psychiatric inpatient care. Moderate levels (r's = .45-.70) of test-retest reliability were reported by Radloff (1977), but this was expected due to the test designing to assess current depression levels. The intentions of the CES-D were to not diagnose depression, but a high correlation still exists with a clinical diagnosis of depression (Wong, 2000). Concurrent validity has been established through positive correlations with other depression scales, including the Hamilton Rating Scale and the Raskin Rating scale (r's = .44 -

.54) at admission to inpatient services. After four weeks of treatment these correlations rose to *r*'*s* = .69-.75.

Social Anxiety. Anxiety was measured with the Social Interaction Anxiety Scale (SIAS; Mattick & Clarke, 1998). The SAIS measures a marked distress when initiating and maintaining dialogue with friends, strangers, or possible romantic partners (Brown et al., 1997). A total of 20 items constitute this self-report scale that is assessed on a 5-point Likert scale (ranging from 0 = "not at all characteristic or true of me" to 4 "extremely characteristic or true of me"). A sample item from this scale is "I become tense if I have to talk about myself or my feelings." Scores are summed, with higher scores indicating higher distress when meeting and conversing with others (Mattick & Clarke, 1998). This scale does not have the capability to differentiate from social phobia and other anxiety disorders (Peters, 2000). Peters (2000) recommended a cut-off score of 36 for probable social phobia. Nevertheless, Heimberg et al. (1992) suggest a cut-off score of 34. A total score of 60 is possible. Internal consistencies ranged from *r*'s = .88-.93 for those with social phobia, agoraphobia, simple phobia, undergraduates, and the community (Mattick & Clarke, 1998). The internal consistency for the total sample was *r* = .94. Test-retest correlations were strong at 4 weeks (*r* = .92) and 12 weeks (*r* = .92) for social phobic patients. The SIAS is strongly correlated to measures of social anxiety, such as the Fear of Negative Evaluation Scale, the Social Avoidance and Distress Scale, the Social Phobia subscale of the Fear Questionnaire, the Social Phobia Scale and the Interaction Anxiety and Audience Anxiety Scales (Brown et al., 1997).

Unmitigated Communion. Unmitigated Communion was measured using the Revised Unmitigated Communion Scale (R-UCS; Helgeson & Fritz, 1998), and the Two-dimensional Unmitigated Communion Scale (TUCS; Bassett & Aubé, 2013). The R-UCS measures the

construct of unmitigated communion, which is operationalized as the concern for others to the exclusion of the self (Fritz & Helgeson, 1998). The R-UCS is a self-report questionnaire made up of 9 items assessed on a 5-point scale (1 = "Strongly Disagree" to 5 = "Strongly Agree"). A sample item from the scale is "I *always* place the needs of others above my own." Total scores are obtained from summation of all items with higher scores indicating unmitigated communion; although the authors do not provide a cut-off score. This scale was developed because an earlier measure of unmitigated communion (i.e., Extended Version of the Personal Attributes Questionnaire) demonstrated low internal consistency and construct validity (Fritz & Helgeson, 1998). However, the current scale has consistently demonstrated only acceptable internal consistency and test-retest reliability (α = .70-.76; Bruch, 2002; Fritz & Helgeson, 1998; Helgeson & Fritz, 1999; Voci & Cramer, 2009; Helgeson et al., 2007; Mosher & Danoff-Burg, 2007; Nagurney, 2007; Amanatullah, Morris, & Curhan, 2008; Nagurney & Bagwell, 2009; Jin et al., 2010) with only one study providing an alpha above .80 for the internal consistency (α = .81; Nagurney, 2008). This scale will still be used within the study for comparison purposes to determine whether the TUCS does in fact measure UC in a more efficacious manner.

The TUCS includes two subscales: UC-self (15 items; e.g., "I care how people will perceive me.") and UC-other (14 items; e.g., "I genuinely care about other's feelings.") (Bassett & Aubé, 2013; Bassett et al., 2013). UC-self is correlated positively to depression and other constructs of dysfunctionality; whereas UC-other is correlated positively to emotional and cognitive aspects of empathy (Bassett et al., 2013). The TUCS demonstrates sound internal consistency for both the UC-self and the UC-other across the three studies that have utilized the scale (α's = .86-.89; Bassett & Aubé, 2013; Bassett & Aubé, 2013; Bassett et al., 2013).

Social Support. Social support was measured through the 2-Way Social Support Scale (2-Way SSS; Shakespeare-Finch & Obst, 2011). The 2-Way SSS measures both receiving and giving emotional and instrumental support. A total of 21 items are assessed on a 6-point Likert scale (ranging from 0 = "not at all" to 5 = "always"). A sample item from the scale is "There is someone I can talk to about the pressures in my life." The items load on four factors: "Receiving Emotional Support" (7 items; e.g., "There is someone I can talk to about the pressures in my life."), "Giving Emotional Support" (5 items; e.g., "I am there to listen to other's problems."), "Receiving Instrumental Support" (4 items; e.g., "If stranded somewhere there is someone who would get me."), and "Giving Instrumental Support" (5 items; e.g., "I help others when they are too busy to get everything done."). Internal consistencies for each of the subscales are high (α's range from .81-.92). Convergent validity has been demonstrated through strong correlations with two other social support measures (Social Support Questionnaire, subscales range from .43-.66; and the Berlin Social Support Scales, subscales range from .28-.55). The scale has strong predictive validity for stress, depression, and life satisfaction. Receiving Emotional Support is negatively related to depression, positively related to life satisfaction, but not related to stress. Receiving Instrumental Support was negatively related to perceived stress and positively related to life satisfaction. Giving Emotional Support was negatively related to perceived stress and positively related to life satisfaction, and Giving Instrumental Support was positively related to life satisfaction.

Demographics. A demographics form was also included (see Appendix H). Questions pertain to the student's sex, age, and ethnicity.

Procedure

Participants completed a packet of questionnaires online. In addition, the packet contained an informed consent section first and a debriefing section last. The measures were counterbalanced in order to prevent order effects.

Results

Descriptive statistics, including means, standard deviations, ranges, and internal consistency values (α), were calculated. Next, independent-samples t-tests and ANOVAs were conducted to determine differences in main study variables across demographic groups (i.e., sex, age, and ethnicity). Then, correlations examined links between the main study variables. Hierarchical stepwise multiple regression equations tested the effect of one main study variable when controlling for others, and then another was conducted concerning a mediated model. Finally, exploratory analyses are presented involving main study variables.

Descriptive Statistics

Data was investigated for missing responses and outliers. A total of 18 participants were omitted due to incomplete responses on one or more of the questionnaires (n = 15) or selecting the same value for every item on a questionnaire (n =3). In regards to the two groups of participants (SONA pool and upper level psychology courses), 10 were deleted from the SONA pool group and eight were deleted from the upper level psychology courses. Within the dataset, there were no significant outliers. The skewness and kurtosis values for each main study variable were within the acceptable range with one anomaly: the Giving Emotional Support subscale of the 2-Way Social Support Scale. Specifically, the skewness value was too high (3.11), but the kurtosis fell within the acceptable range. Caution will be used when interpreting this scale.

Cronbach's alphas were calculated for all individual scales in the study. All alpha values were acceptable, ranging from $\alpha = .64$ (Receiving Instrumental Support) to $\alpha = .95$ (Worry) (see Table 2). Means, standard deviations, and ranges are also reported in Table 1. These values were in line with the values present in the existing literature involving nonclinical samples.

Main study measures were examined in relation to their clinical cut-off scores. Despite the RRS not having clinical cut-off scores, Treynor et al. (2003) suggest using percentile cut-offs from each individual study. This entails categorizing those who score in the top 33% of the sample as "high" ruminators and those who score in the bottom 33% as "low" ruminators. Applying this to the current study those who scored 57 or above ($n = 36$ or 24%) would be a high ruminator and those who scored 37 or below ($n = 51$ or 34%) would be a low ruminator. This is in line with a study that was conducted by Halvorsen and colleagues (2015) that compared currently depressed, previously depressed, and never depressed individuals. Sensitivity and specificity are two important statistical measures when considering the ability of a test to classify an individual as having a particular diagnosis (Parikh, Mathai, Parikh, Chandra Sekhar, & Thomas, 2008). Sensitivity is the capability of a test to determine if an individual has a certain diagnosis. Specificity is the ability of a test to determine if an individual does not have a specific diagnosis. Fresco and colleagues (2003) used the PSWQ to diagnosis individuals as having social anxiety disorder, despite the scale normally diagnosing those with generalized anxiety disorder. Sensitivity and specificity were both at their highest rate when a cut-off score of 65 was utilized. In this particular study, applying a cut-off score of 65 correctly diagnosed 76% of the sample. According to Stanley and colleagues (2003), to differentiate between GAD from nonclinical samples a cut-off score of 50 is required. This also yields an 82% sensitivity and 90% specificity. However, since the current study centers on social anxiety the results will be

examined based on the cut-off score of 65. Out of the 148 participants, 32% scored 65 or higher. On the SIAS, 27% ($n = 40$) of the sample scored higher than the cut-off score of 43 (Mattick & Clarke, 1998). Seventy-four (50%) of the participants scored either 16 or higher on the CES-D, which is the cut-off score established by the original validation study (Radloff, 1977). No cut-off scores exist for the 2WSS, RUCS, or TUCS.

Differences in main study variable scores due to gender were examined. Independent samples t-tests revealed no significant difference in sex among the unmitigated communion, unmitigated communion-other and focused, depression, anxiety, rumination, and social support. However, males ($M = 46.44$, $SD = 14.77$) were significantly less worried than females ($M = 57.03$, $SD = 14.84$), $t(145) = -3.57$, $p < .001$ (two-tailed). Additionally, males ($M = 2.79$, $SD = .76$) held a significantly less propensity towards unmitigated communion-self focused than females ($M = 3.20$, $SD = 1.02$), $t(145) = -2.08$, $p = .039$ (two-tailed). Another set of independent samples t-tests showed no significant differences between the two groups of participants (SONA pool and upper level psychology courses) among the unmitigated communion, unmitigated communion-other and -self focused, depression, anxiety, rumination, social support, and worry. A one-way ANOVA, followed by Tukey's HSD test, was then performed to investigate race/ethnicity differences for main study variables. The analysis of variance showed that the effect of race/ethnicity was significant on unmitigated communion-self focused, $F(3, 143) = 2.92$, $p = .036$. The Tukey's HSD test revealed that Caucasians ($M = 3.25$, $SD = .98$) scored significantly higher than African Americans ($M = 2.74$, $SD = .98$), $p = .03$. The effect of race/ethnicity was significant on giving emotional support, $F(3, 143) = 4.18$, $p = .007$. The Tukey's HSD test revealed that Caucasians ($M = 22.11$, SD 3.08) scored significantly higher than African Americans ($M = 20.05$, $SD = 5.13$), $p = .03$. Additionally, the effect of race/ethnicity

was significant on unmitigated communion-other focused, $F(3,143) = 8.07$, $p < .001$. The Tukey's HSD test revealed that Caucasians ($M = 53.87$, $SD = 11.76$) scored significantly higher than African Americans ($M = 43.23$, $SD = 10.4$), $p < .001$.

Next, zero-order correlations were performed to examine the relationships between main study variables (see Table 2; note: correlations that pertain to hypotheses will be discussed in the subsequent section).

Main Hypotheses

Zero-order correlations. Hypothesis 1 predicted a positive relationship between UC and both depression and anxiety; we found a positive relationship between UC and depression ($r = .28$, $p = .001$), and a positive relationship between UC and anxiety ($r = .21$, $p = .01$). Hypothesis 1a predicted a positive relationship between UC-Self and both depression and anxiety; we found a positive relationship between UC-Self and depression ($r = .35$, $p < .001$), and a positive relationship between UC-Self and anxiety ($r = .47$, $p < .001$). Hypothesis 1b predicted no significant relationship in either direction between UC-Other and both depression and anxiety. Hypothesis 1b was partially supported with no significant relationship between UC-other and depression ($r = .09$, $p = .28$), but a significantly positive relationship between UC-other and anxiety ($r = .20$, $p = .02$).

Hypothesis 2 predicted a positive relationship between UC and both rumination and worry; we found a positive relationship between UC and rumination ($r = .25$, $p = .002$), and a positive relationship between UC and worry ($r = .34$, $p < .001$). Hypothesis 2a predicted a positive relationship between UC-Self and both rumination and worry; we found a positive relationship between UC-Self and rumination ($r = .25$, $p = .002$), and a positive relationship between UC-Self and worry ($r = .44$, $p < .001$). Hypothesis 2b predicted no significant

relationship in either direction between UC-Other and both rumination and worry. Hypothesis 2b was partially supported with no significant relationship between UC-Other and rumination (r = .09, p = .27), but a significant positive relationship between UC-Other and worry (r = .26, p = .001).

Hypothesis 3 predicted a positive relationship between UC and giving instrumental and emotional support, but related negatively to receiving instrumental and emotional support. Hypothesis 3 was not supported, as UC did not correlate with giving instrumental support (r = -.01, p = .87), giving emotional support (r = -.004, p = .97), receiving instrumental support (r = .12, p = .16), or receiving emotional support (r = .04, p = .64). Hypothesis 3a predicted a positive relationship between UC-Self and giving both instrumental and emotional support. Hypothesis 3a was not supported, as UC-Self correlated negatively with giving instrumental support (r = -.20, p = .02), and did not correlate with giving emotional support (r = -.11, p = .20). Hypothesis 3b predicted a positive relationship between UC-Other and giving and receiving instrumental and emotional support. Hypothesis 3b was not supported, as UC-Other did not correlate with giving instrumental support (r = .06, p = .51), giving emotional support (r = .14, p = .09), receiving instrumental support (r = .13, p = .13), or receiving instrumental support (r = .10, p = .25).

Mediated regression model. Hypothesis 4 concerned a mediated model of the relationship between social support and anxiety as mediated by worry. Baron and Kenny (1986) outline three mandatory steps that should be taken before examining the mediated relationship between the predictor and outcome. These steps require the computation of regression equations. First, the predictor variable must predict the mediator. Second, the predictor variable must predict the outcome variable. Third, the outcome variable is regressed on both the

predictor and mediator variables. In order to meet the standards, the mediator must significantly predict the outcome variable, while controlling for the predictor variable. This, in turn, examines the partial correlation that the mediator has on the outcome variable. If these three conditions are met, then mediation may be tested (Frazier, Tix, & Baron, 2004). A fourth step looks at the effect of the predictor variable on the outcome variable. Furthermore, this step entails examining the direct relationship between the predictor and outcome, and then examining the relationship between the predictor and outcome while controlling for the mediator. If mediation is present, the effect of the predictor variable on the outcome variable is reduced and no longer significant. To test the significance of the reduction a Sobel's test is performed, which determines whether the indirect effect of the predictor variable on the outcome variable is statistically different from zero when controlling for the mediator (Sobel, 1982).

Hypothesis 4 predicted that worry would mediate (abolish) the relationship between social support and anxiety. In step l, social support negatively predicted anxiety, $\beta = -.40$, $p < .001$ (see Figure 1). In step 2, social support negatively predicted worry, $\beta = -.22$, $p = .007$. In step 3, worry predicted anxiety while controlling for social support, $\beta = .32$, $p < .001$. In step 4, the relationship between social support and anxiety while controlling for worry was not zero, $\beta = -.31$, $p < .001$. Thus, worry partially mediated the relationship between social support and anxiety. The amount of mediation is $\beta_{Indirect\ Effect} = -.34$. According to a Sobel's test, this partially mediated effect was statistically significant ($z = -2.29$, $p = .01$ (one-tailed)). Therefore, Hypothesis 4 was partially upheld due to worry not fully mediating the relationship between social support and anxiety, but rather worry partially mediated the relationship.

An additional mediation model was examined to test whether this study is consistent with previous literature in that rumination fully mediates the relationship between social support and

depression. Only a handful of studies have actually tested this model (Nolen-Hoeksema & Davis, 1999; Nolen-Hoeksema et al., 1994). In step 1, social support negatively predicted depression, $\beta = -.52$, $p < .000$. In step 2, social support negatively predicted rumination, $\beta = -.42$, $p < .001$. In step 3, rumination predicted depression while controlling for social support, $\beta = .68$, $p < .001$. In step 4, the relationship between social support and depression was not zero while controlling for rumination, $\beta = -.23$, $p < .001$. Thus, rumination partially mediated the relationship between social support and depression. The amount of mediation is $\beta_{Indirect\ Effect} = -.70$. According to a Sobel's test, this partially mediated effect was statistically significant ($z = -5.13$, $p < .001$ (one-tailed)).

Multiple regression models. Hypothesis 5 employed two separate hierarchical step-wise regressions. The first stepwise multiple regression model was conducted to evaluate whether UC-Self predicted depression after controlling for rumination, worry, and social support (see Figure 2). In step 1 of the analysis, rumination, receiving emotional support, giving emotional support, receiving instrumental support, giving instrumental support, and worry, were entered into the equation. The six variables produced an adjusted R^2 of .68 ($F(6, 141) = 49.45$, $p < .001$) for the prediction of depression. The strongest predictor was rumination ($\beta = .59$) followed by worry ($\beta = .17$). UC-Self did not enter into the second step of the analysis ($\beta = .10$, $t = 1.86$, $p = .065$). Therefore, Hypothesis 5a was not upheld.

The second stepwise multiple regression model was conducted to determine whether UC-Self predicted anxiety after controlling for rumination, worry, and social support (see Figure 3). In step 1 of the analysis, rumination, receiving emotional support, giving emotional support, receiving instrumental support, giving instrumental support, and worry, were entered into the equation. These six variables produced an adjusted R^2 of .29 ($F(6, 141) = 11.13$, $p < .001$) for

the prediction of anxiety. The strongest predictor was receiving emotional support (β = -.44) followed by receiving instrumental support (β = .37). In step 2, UC-Self was entered into the equation and produced an adjusted R^2 of .38 ($F(1, 140) = 20.61, p < .001$.) These seven variables accounted for 41% of the variance of anxiety. The strongest predictor was Receiving Instrumental Support (β = .39). Nonetheless, UC-Self held the highest t-value and significance out of all the predictors ($t(147) = 4.54, p < .001$). Receiving instrumental support had the second highest t-value and significance ($t(147) = 2.68, p = .008$. Therefore, Hypothesis 5b was upheld.

Exploratory Analyses

Further analyses were conducted to examine the relationship of unmitigated communion-self focused to depression and anxiety. Two analyses were conducted. To determine whether unmitigated communion and unmitigated communion-other focused would annihilate the level of prediction that unmitigated communion-self focused had on anxiety, a multiple regression analysis was conducted. Then, to determine whether UC, UC-Other, or UC-Self predicted depression a multiple regression analysis was conducted.

A stepwise regression model was conducted to determine whether the two other forms of unmitigated communion would take away from the prediction of unmitigated communion-self focused when entered into the regression model. In step 1 of the analysis, rumination, receiving instrumental support, receiving emotional support, giving emotional support, giving instrumental support, and worry, were entered into the equation. These six variables produced an adjusted R^2 of .28 ($F(6, 146) = 10.48, p < .001$) for the prediction of anxiety. The strongest predictor was receiving emotional support (β = -.43) followed by receiving instrumental support (β = .37). In step 2, UC, UC-Other, and then UC-Self were entered into the equation and produced an adjusted R^2 of .36 ($F(9, 146) = 10.28, p < .001$.) These nine variables accounted for 40% of the

variance of anxiety. Even after controlling for the other six variables and entering UC and UC-Other into the equation, UC-Self was still significant ($t(146) = 4.18, p < .001$). Also, neither UC nor UC-Other were significant predictors of anxiety.

A stepwise regression model was conducted to determine which variable predicted depression the most between UC-Other, UC, and UC-Self. UC-Other, UC, and UC-Self were entered into the equation in that order. These three variables produced an adjusted R^2 of .21 ($F(3, 147) = 12.68, p < .001$) for the prediction of depression. The strongest predictor was UC-Self ($\beta = .47$), followed by UC-Other ($\beta = -.37$), and then UC ($\beta = .28$).

Discussion

This paper examined unmitigated communion relationship to depression and anxiety. Furthermore, two important components of both depression and anxiety (rumination and worry) were also examined in relation to unmitigated communion. Regression models sought to determine the importance of unmitigated communion, in relation to other variables, for the prediction of both depression and anxiety. Finally, regression models dug deeper into this exploration of unmitigated communion. A gap in the literature was also filled by examining the relation of social support and anxiety in a mediation model that involved worry as a potential mediator.

Unmitigated Communion & Unmitigated Communion-Other and -Self Focused

Unmitigated communion (UC) is conceptualized as the tendency to focus on others and exclude oneself. Later, Bassett and Aubé (2013) delineated this concept by introducing self-sacrifice to UC; specifically, they added two components: unmitigated communion-self focused (UC-Self) and unmitigated communion-other focused (UC-Other). UC-Self is the more harmful of the two, because studies have found that it is related to depression and low self-esteem

(Bassett & Aubé, 2013). Those high in UC-Self think that others will value and like them more if they make sacrifices for others. Therefore, an egotistical motivation drives these individuals to focus on others. Those high in UC-Other also make sacrifices for others; however, they make these sacrifices because they truly care about others. Their motivation for helping others is altruistic rather than egotistical in nature.

We found that all three aspects of UC are related to each other, but they differ in how they are associated with rumination, worry, depression, and anxiety, as consistent with prior research (e.g., Nolen-Hoeksema & Jackson, 2001; Fritz, 2000). As expected, UC and UC-Self were related to each of the outcome variables, but UC-Other was not linked to rumination or depression. The relationship between UC-Other to both worry and anxiety was not expected, because of the altruistic nature of UC-Other as compared to the egotistical motivation of UC-Self. Furthermore, no study to our knowledge has found a relationship between UC-Other and depression. Due to the similarity between depression and anxiety, we expected that UC-Other would be related to both. Nonetheless, when controlling for UC-Other, the relationship diminished between UC-Other and anxiety, but the relationship between UC-Self and anxiety remained. Therefore, the relationship between UC-Other and anxiety is not as substantial as between UC-Self and anxiety.

UC-Self was a stronger predictor than UC for depression and anxiety. Based on the findings of this study, future studies should focus on UC-Self and UC-Other rather than UC more broadly. Specifically, UC-Other captures the component of UC that is beneficial, and UC-Self explains the portion that is pathological.

UC-Self & Depression

UC-Self was not a significant predictor of depression when controlling for rumination, social support, and worry. On its own, rumination is such a strong component of depression; however, in follow-up analyses excluding rumination, UC-Self was still not significant. With rumination present in the analysis, UC-Self predicted depression to a larger degree. UC, in general, may not be as important to depression as once anticipated. Only a few studies have even employed a regression model to test the relationship between UC and depression (Bruch, 2002; Fritz, 2000; Jin et al., 2010; Nagurney, 2007). In two out of the four studies, UC predicted depression; however, these two studies did not include rumination. Our study was the first to our knowledge to employ a regression model examining UC-Self. Based on our findings, the original conceptualization of UC does not seem to be as relevant in the discussion of depression when considering other variables such as rumination, social support, and worry. Furthermore, UC-Self better predicted depression than the broader concept of UC within this study, which is consistent with previous research that has observed a stronger relationship between UC-Self and depression than UC and depression (Bassett & Aubé, 2013). A relationship does exist between UC-Self and depression, but to what extent?

UC-Self may lead to rumination and worry, which ultimately may lead to depression. This sequence is suggested through the finding that UC-Self predicts depression, rumination, and worry. The more important finding may be that UC-Self predicts depression; whereas depression did not predict UC-Self. In a longitudinal study, Michl and colleagues (2013) found that rumination serves as the link between stressful life events and depression. The propensity of UC-Self individuals to overinvest themselves in relationships could cause interpersonal conflict that could lead to rumination (e.g., ruminating about relationship problems). In fact, Reynolds

and colleagues (2006) found that interpersonal conflict affected those with and without UC equally on the day that the conflict occurred. However, when evaluated on the following day, those with UC were more negatively impacted. They had spent time mulling over the conflict due to their overinvestment in their relationships.

The fact that UC-Other predicted UC-Self when controlling for all other variables, and UC-Self predicted UC-Other when controlling for all other variables provides more evidence that UC-Self may predict depression. The strong relationship of UC-Other and UC-Self was also found by Bassett and colleagues (2013). Thus UC-Other may lead to UC-Self. The propensity to sacrifice for others, even with an altruistic motive in mind, may lead to more selfish reasons. One may start out wanting to be there for someone, which could result in sacrificing important parts of one's life to care for the needs of another; this may bring satisfaction to that individual. They may begin to crave this feeling to the point where they start doing it for personal satisfaction rather than helping others, which may lead to depression. This progression seems logical due to a study that demonstrated how two relationship issues (self-neglect and overinvolvement with others) mediated the pathway from UC to depression (Fritz & Helgeson, 1998). Within this model, intrusive thoughts (rumination) about the other person contributed substantially to this model. More research needs to evaluate the possibility that a depressed individual does not become an individual high in UC-Self, but rather an individual high in UC-Self becomes depressed.

UC-Self & Anxiety

Another important finding was that UC-Self is the best predictor of anxiety when controlling for all other main study variables. Prior research has on UC has focused largely on its relationship to depression. Only two studies have included anxiety in the discussion of UC

(Fritz, 2000; Nagurney, 2007), and both focused on generalized rather than social anxiety. This was also one of the first studies to employ a regression model that examined UC and UC-Self plus social anxiety. The strong relationship between UC-Self and social anxiety is not surprising given the relationship that UC-Self shares with shame and perfectionism (Bassett and Aubé, 2013; Basset et al., 2013). Social anxiety shares a relationship with these variables as well (Cândea & Szentágotai-tătar, 2014; Gilbert & Miles, 2000; Fergus, Valentiner, McGrath, & Jencius, 2010; Monforton, Vickers, & Antony, 2012; Nepon, Flett, Hewitt, & Molnar, 2011; Bieling, Summerfeldt, Israeli, & Antony, 2004).

Interestingly, the two primary models of social anxiety are based on the assumption that individuals with social anxiety are self-focused (Clark & Wells, 1995; Rapee & Heimberg, 1997). Based on this assumption, it seems peculiar that social anxiety and UC-Self or UC-Other would share a relationship due to the fact that those high in UC-Self are overinvested in relationships. Individuals high in UC-Self or UC-Other may hold excessively high expectations for their relationships. This would explain why UC-Self and UC-Other were both related to social anxiety. However, what is not clear is why those high in UC-Self have a higher inclination to social anxiety than those high in UC-Other. Given the egotistical nature of UC-Self, the answer may lie in these individuals feeling a need to make a good impression on others. Furthermore, they feel shameful about themselves, leading them to seek the approval of others. With regard to perfectionism, once a relationship is formed, the excessively high expectations persons with UC-Self have for themselves come into play. Once the relationship experiences some sort of problem, this individual may internalize the relationship problem as being due to him or her, ultimately leading to an increase in shame. This sequence of events could explain why UC-Self predicts social anxiety.

Not only did UC-Self predict social anxiety, but social anxiety also predicted UC-Self. Similarly, Bassett and colleagues (2013) found that UC-Self predicted negative self-evaluation; studies have documented that people high on social anxiety also engage in negative self-evaluation (e. g., Schulz, Alpers, & Hofmann, 2008). Socially anxious individuals identify themselves as not being skilled interpersonally (Kuder & Grover, 2014; Fydrich, Chambless, Perry, Buergener, & Beazley, 1998). Perhaps, individuals high in UC-Self may feel the same way, which contributes to their negative self-evaluating thoughts. Nonetheless, this still does not explain why social anxiety is characterized by avoidance of social situations, and UC-Self is characterized by an overinvestment in relationships. A possible explanation could be found in Schneider and Tessier (2007) study on adolescents with social anxiety. They found that the adolescents "tended to focus on their own needs in their concepts of friendship and frequently referred to friendship as a source of help" (p. 339), which is consistent with UC-Self.

Social Support, Worry, & Anxiety

This study is the first to our knowledge to explore the mediating role that worry has on the relationship between social support and social anxiety. Worry may serve the same function cognitively for anxiety that rumination does for depression (Watkins, 2008). Few studies have researched the connection between worry and social anxiety (Cowden, 2005). When examined together, a relationship has been found between the two and other important facets of social anxiety, such as fear of negative evaluation. Social support is also linked to social anxiety (e.g., Festa & Ginsburg, 2011; La Greca & Harrison, 2005; La Greca & Lopez, 1998). Reinelt and colleagues (2014) demonstrated that, even when a genetic predisposition to social anxiety is present, social support serves as a safeguard to the development of the social anxiety disorder.

Perhaps maladaptive cognitions, such as worry, mediate the relationship between social support and social anxiety – indeed, worry served as a partial mediator in this study.

Summary and Looking Ahead

This study explored the connections between UC to both social anxiety and depression. This study expands on previous literature by examining more closely the separation of UC into two factors: UC-Other and UC-Self. This study contributes to the literature by examining the link between UC and depression when controlling for other important elements of depression (e.g., rumination). Additionally, this was the first study to our knowledge to consider the relationship between UC and social anxiety. Finally, the role of worry in mediating the connection of social support to social anxiety was investigated.

This study's findings were consistent with prior research. UC-Self was related to depression and rumination to a higher degree than UC. UC-Self was also linked to social anxiety and worry, which are two variables that have not been examined in relation to this construct previously. UC-Self and UC-Other had a strong relationship to one another but were differentially related to depression and rumination. In terms of the mediation model, previous research of rumination as a full mediator between social support and depression was not supported by this study, as rumination was found to be a partial mediator.

The major finding of this study is that UC-Self was more highly related to social anxiety than to depression. Not only did UC-Self predict social anxiety when controlling for all other variables, but social anxiety also predicted UC-Self after controlling for all other variables. The strong relationship observed between the two merits further study. UC was originally designed to explain the gender difference in depression and has not been examined in connection with social anxiety. Based on the present findings, UC-Self appears to be more important in the study

of social anxiety than UC itself. Nonetheless, UC was associated with UC-Other more highly than to UC-Self. With this in mind, it seems logical that the breakdown of UC into UC-Other and UC-Self has allowed greater specificity in the findings. That is, UC-Self may more specifically capture the dangerous effects of being overinvested in relationships with others.

Limitations and Directions for Future Research

The social support scale has not been used frequently, and the reliability of one subscale was below .70, which may have contributed to the lack of a relationship between UC and social support. A significant aspect of UC is provision of support, suggesting that our scale did not capture this construct adequately.

Another limitation of this study was the use of college students, preventing the results from generalizing to other populations. Using a general sample may lead to different results.

Certain questions remain unanswered. The relationship that exists between UC-Other and UC-Self merits further study. For example, can a person oscillate between UC-Other and UC-Self? In one relationship, could individuals tend to act in a manner more congruent with UC-Other and in another relationship more likely to act in accordance to UC-Self? Furthermore, are these two concepts stable across situations, which could suggest they are personality traits?

The findings of UC-Self predicting social anxiety, and social anxiety predicting UC-Self should be replicated. UC-Self needs to be further evaluated within the realm of anxiety itself. Anxiety may be more pivotal in the discussion of UC instead of depression. Studies need to evaluate whether generalized anxiety disorder, agoraphobia, and OCD share a relationship with UC. Furthermore, only one aspect of social anxiety (worry) was studied in connection to UC. More important variables, such as fear of negative evaluation, need to be added to the analysis.

Clinical Implications

One of the major implications of this study is that UC-Self may play an important role in social anxiety. With regard to social anxiety disorder itself, a major issue is that the majority of those with it do not seek treatment (Grant et al., 2005). However, therapy (CBT) has been shown to be highly effective in the reduction of social anxiety (Hunsley, Elliott, & Therrien, 2014). Social anxiety disorder was previously considered social phobia in the DSM-IV. The revision of the disorder came about due to the narrow application of the construct to just performance evaluation. Now, the diagnosis can be given due to how an individual responds in numerous social situations. A fear lies within an individual when there is a possibility that they will be scrutinized and when they encounter unfamiliar people. A diagnostic category also states that the distress felt in the social or performance situations impedes on the person's normal relationships.

With this being the first study to observe this connection between UC-Self and social anxiety the interplay between the concepts is difficult to conceptualize. Within the clinical setting, however, it would be advantageous to determine whether the individual is overly concerned with certain relationships. If the client is focused more on someone else's well-being, then they may have high levels of UC-Self. The link between UC-Self and social anxiety could be in the individual's fear of focusing on anyone else but that one person. They have invested so much within the one relationship that developing any other relationship may be a frightening endeavor. Additionally, the low self-esteem of UC-Self individuals may detract them from believing they can interact well with others. They may see those in whom they are overly invested as their only hope at any sort of social relationship.

More research needs to be conducted on UC-Self to determine its importance within the clinical literature. Many questions remain with regard to this concept. This study has demonstrated that UC-Self is connected to social anxiety more so than depression. When an individual initiates therapy, it would be beneficial to assess their existing relationships. If the individual is describes UC-Self (i.e., being overly invested in their relationships), then the therapy could involve helping the client change this pattern.

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Table 1

Means and Standard Deviations of Main Study Variables

	M	*SD*	*Range*	α
Rumination	45.19	14.00	23.00-80.00	0.94
Depression	17.26	10.75	0.00-47.00	0.90
Worry	54.70	15.37	19.00-80.00	0.95
Social Anxiety	30.74	16.64	0.00-71.00	0.93
Unmitigated Communion	29.77	6.07	14.00-43.00	0.77
Receiving Emotional Support	28.32	5.54	6.00-35.00	0.79
Giving Emotional Support	21.33	3.99	6.00-25.00	0.74
Receiving Instrumental Support	15.97	3.41	5.00-20.00	0.64
Giving Instrumental Support	19.28	4.42	6.00-25.00	0.72
UC-Self	46.64	14.79	20.00-85.00	0.90
UC-Other	50.80	12.17	19.00-78.00	0.91

Note. Rumination = Ruminative Response Scale; Depression = Center for Epidemiologic Studies Depression Scale; Worry = Penn State Worry Questionnaire; Social Anxiety = Social Anxiety Interaction Scale; Unmitigated Communion = Revised Unmitigated Communion Scale; Receiving Emotional Support = Receiving Emotional Support subscale score of the 2-Way Social Support Scale; Giving Emotional Support = Giving Emotional Support subscale score of the 2-Way Social Support Scale; Receiving Instrumental Support = Receiving Instrumental Support subscale score of the 2-Way Social Support Scale; Giving Instrumental Support = Giving Instrumental Support subscale score of the 2-Way Social Support subscale; UC-Self = UC-Self subscale score of the Two Dimensional Unmitigated Communion Scale; UC-Other = UC-Other subscale score of the Two Dimensional Unmitigated Communion Scale.

Table 2
Zero Order Correlations between Main Study Variables

Measures	1	2	3	4	5	6	7	8	9	10	11
1. Rumination	--										
2. Receiving Emotional Support	-.36**	--									
3. Giving Emotional Support	-.38**	.85**	--								
4. Receiving Instrumental Support	-.32**	.85**	.82**	--							
5. Giving Instrumental Support	-.42**	.84**	.82**	.84**	--						
6. Social Anxiety	.42**	-.38**	-.31**	-.24**	-.40**	--					
7. Depression	.78**	-.45**	-.47**	-.38**	-.52**	.44**	--				
8. Worry	.51**	-.09	-.09	-.01	-.21**	.38**	.52**	--			
9. UC	.25**	.04	-.004	.12	-.01	.21*	.28**	.34**	--		
10. UC-Self	.26**	-.16	-.11	-.11	-.20*	.47**	.35**	.44**	.44**	--	
11. UC-Other	.09	.10	.14	.13	.06	.20*	.09	.26**	.54**	.66**	--

*$p < .05$; **$p < .01$

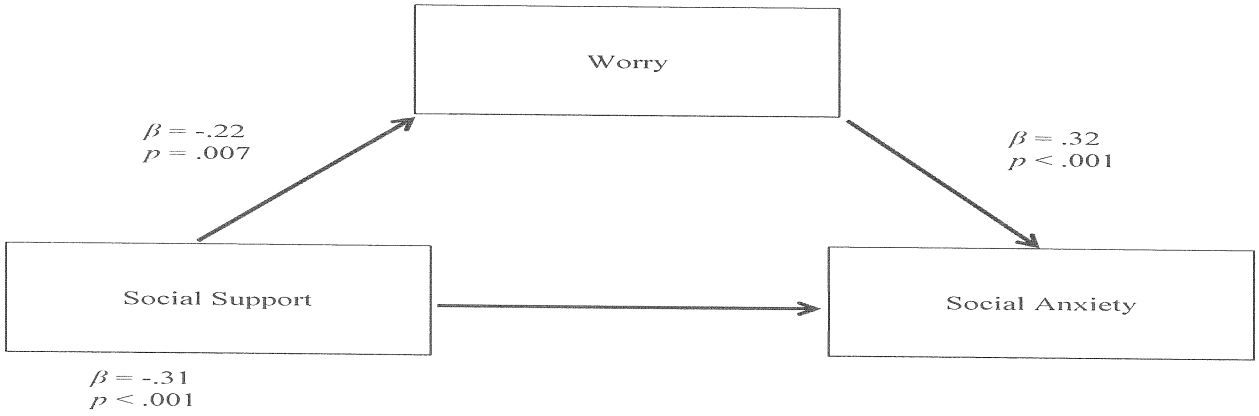

Figure 1. Mediated model between social support and social anxiety, as mediated by worry.

* $p < .05$; ** $p < .01$

Appendix A

Penn State Worry Questionnaire

Instructions: Rate each of the following statements on a scale of 1 ("not at all typical of me") to 5 ("very typical of me"). Please do not leave any items blank.

1	2	3	4	5
Not at all typical of me				Very typical of me

1. If I do not have enough time to do everything, I do not worry about it.
2. My worries overwhelm me.
3. I do not tend to worry about things.
4. Many situations make me worry.
5. I know I should not worry about things, but I just cannot help it.
6. When I am under pressure I worry a lot.
7. I am always worrying about something.
8. I find it easy to dismiss worrisome thoughts.
9. As soon as I finish one task, I start to worry about everything else I have to do.
10. I never worry about anything.

Appendix B

Ruminative Response Scale

Instructions: People think and do many different things when they feel depressed. Please read each of the items below and indicate whether you almost never, sometimes, often, or almost always think or do each one when you feel down, sad, or depressed. Please indicate what you *generally* do, not what you think you should do.

1 almost never 2 sometimes 3 often 4 almost always

1. Think about how alone you feel
2. Think "I won't be able to do my job if I don't snap out of this"
3. Think about your feelings of fatigue and achiness
4. Think about how hard it is to concentrate
5. Think "What am I doing to deserve this?"
6. Think about how passive and unmotivated you feel.
7. Analyze recent events to try to understand why you are depressed
8. Think about how you don't seem to feel anything anymore
9. Think "Why can't I get going?"
10. Think "Why do I always react this way?"
11. Go away by yourself and think about why you feel this way
12. Write down what you are thinking about and analyze it
13. Think about a recent situation, wishing it had gone better
14. Think "I won't be able to concentrate if I keep feeling this way."

15. Think "Why do I have problems other people don't have?"
16. Think "Why can't I handle things better?"
17. Think about how sad you feel
18. Think about all your shortcomings, failings, faults, mistakes
19. Think about how you don't feel up to doing anything
20. Analyze your personality to try to understand why you are depressed
21. Go someplace alone to think about your feelings
22. Think about how angry you are with yourself

Appendix C

Center for Epidemiological Studies Depression Scale

Instructions: Below is a list of some ways you may have felt or behaved. Please indicate how often you have felt this way during the last week by checking the appropriate space. Please only provide one answer to each question.

1. I was bothered by things that don't usually bother me.

- ☐ Rarely or none of the time (<1 day)
- ☐ Some or a little of the time (1-2 days)
- ☐ Occasionally or a moderate amount of the time (3-4 days)
- ☐ Most or all of the time (5-7 days)

2. I did not feel like eating; my appetite was poor.

- ☐ Rarely or none of the time (<1 day)
- ☐ Some or a little of the time (1-2 days)
- ☐ Occasionally or a moderate amount of the time (3-4 days)
- ☐ Most or all of the time (5-7 days)

3. I felt that I could not shake off the blues even with the help of my family or friends.

- ☐ Rarely or none of the time (<1 day)
- ☐ Some or a little of the time (1-2 days)
- ☐ Occasionally or a moderate amount of the time (3-4 days)
- ☐ Most or all of the time (5-7 days)

4. I felt that I was just as good as other people.

- ☐ Rarely or none of the time (<1 day)
- ☐ Some or a little of the time (1-2 days)
- ☐ Occasionally or a moderate amount of the time (3-4 days)
- ☐ Most or all of the time (5-7 days)

5. I had trouble keeping my mind on what I was doing.

- ☐ Rarely or none of the time (<1 day)
- ☐ Some or a little of the time (1-2 days)
- ☐ Occasionally or a moderate amount of the time (3-4 days)
- ☐ Most or all of the time (5-7 days)

6. I felt depressed.

- ☐ Rarely or none of the time (<1 day)
- ☐ Some or a little of the time (1-2 days)
- ☐ Occasionally or a moderate amount of the time (3-4 days)
- ☐ Most or all of the time (5-7 days)

7. I felt everything I did was an effort.

- ☐ Rarely or none of the time (<1 day)
- ☐ Some or a little of the time (1-2 days)
- ☐ Occasionally or a moderate amount of the time (3-4 days)

- ☐ Most or all of the time (5-7 days)

8. I felt hopeful about the future.

- ☐ Rarely or none of the time (<1 day)
- ☐ Some or a little of the time (1-2 days)
- ☐ Occasionally or a moderate amount of the time (3-4 days)
- ☐ Most or all of the time (5-7 days)

9. I thought my life had been a failure.

- ☐ Rarely or none of the time (<1 day)
- ☐ Some or a little of the time (1-2 days)
- ☐ Occasionally or a moderate amount of the time (3-4 days)
- ☐ Most or all of the time (5-7 days)

10. I felt fearful.

- ☐ Rarely or none of the time (<1 day)
- ☐ Some or a little of the time (1-2 days)
- ☐ Occasionally or a moderate amount of the time (3-4 days)
- ☐ Most or all of the time (5-7 days)

11. My sleep was restless.

- ☐ Rarely or none of the time (<1 day)
- ☐ Some or a little of the time (1-2 days)

- ☐ Occasionally or a moderate amount of the time (3-4 days)
- ☐ Most or all of the time (5-7 days)

12. I was happy.

- ☐ Rarely or none of the time (<1 day)
- ☐ Some or a little of the time (1-2 days)
- ☐ Occasionally or a moderate amount of the time (3-4 days)
- ☐ Most or all of the time (5-7 days)

13. I talked less than usual.

- ☐ Rarely or none of the time (<1 day)
- ☐ Some or a little of the time (1-2 days)
- ☐ Occasionally or a moderate amount of the time (3-4 days)
- ☐ Most or all of the time (5-7 days)

14. I felt lonely.

- ☐ Rarely or none of the time (<1 day)
- ☐ Some or a little of the time (1-2 days)
- ☐ Occasionally or a moderate amount of the time (3-4 days)
- ☐ Most or all of the time (5-7 days)

15. People were unfriendly.

- ☐ Rarely or none of the time (<1 day)

- ☐ Some or a little of the time (1-2 days)
- ☐ Occasionally or a moderate amount of the time (3-4 days)
- ☐ Most or all of the time (5-7 days)

16. I enjoyed life.

- ☐ Rarely or none of the time (<1 day)
- ☐ Some or a little of the time (1-2 days)
- ☐ Occasionally or a moderate amount of the time (3-4 days)
- ☐ Most or all of the time (5-7 days)

17. I had crying spells.

- ☐ Rarely or none of the time (<1 day)
- ☐ Some or a little of the time (1-2 days)
- ☐ Occasionally or a moderate amount of the time (3-4 days)
- ☐ Most or all of the time (5-7 days)

18. I felt sad.

- ☐ Rarely or none of the time (<1 day)
- ☐ Some or a little of the time (1-2 days)
- ☐ Occasionally or a moderate amount of the time (3-4 days)
- ☐ Most or all of the time (5-7 days)

19. I felt that people disliked me.

- ☐ Rarely or none of the time (<1 day)
- ☐ Some or a little of the time (1-2 days)
- ☐ Occasionally or a moderate amount of the time (3-4 days)
- ☐ Most or all of the time (5-7 days)

20. I could not get "going".

- ☐ Rarely or none of the time (<1 day)
- ☐ Some or a little of the time (1-2 days)
- ☐ Occasionally or a moderate amount of the time (3-4 days)
- ☐ Most or all of the time (5-7 days)

Appendix D

Social Interaction Anxiety Scale

Instructions: For each item, please circle the number to indicate the degree to which you feel the statement is characteristic or true for you. The rating scale is as follows:

0 = Not at all characteristic or true of me.

1 = Slightly characteristic or true of me.

2 = Moderately characteristic or true of me.

3 = Very characteristic or true of me.

4 = Extremely characteristic or true of me.

1. I get nervous if I have to speak with someone in authority (teacher, boss, etc.).
2. I have difficulty making eye contact with others.
3. I become tense if I have to talk about myself or my feelings.
4. I find it difficult to mix comfortably with the people I work with.
5. I find it easy to make friends my own age.
6. I tense up if I meet an acquaintance in the street.
7. When mixing socially, I am uncomfortable.
8. I feel tense if I am alone with just one other person.
9. I am at ease meeting people at parties, etc.
10. I have difficulty talking with other people.
11. I find it easy to think of things to talk about.
12. I worry about expressing myself in case I appear awkward.

13. I find it difficult to disagree with another's point of view.

14. I have difficulty talking to attractive persons of the opposite sex.

15. I find myself worrying that I won't know what to say in social situations.

16. I am nervous mixing with people I don't know well.

17. I feel I'll say something embarrassing when talking.

18. When mixing in a group, I find myself worrying I will be ignored.

19. I am tense mixing in a group.

20. I am unsure whether to greet someone I know only slightly.

Appendix E

Revised Unmitigated Communion Scale

Instructions: Using the scale below, circle the number beside each statement that indicates the extent to which you agree or disagree.

Strongly Disagree	Slightly Disagree	Neither Agree nor Disagree	Slightly Agree	Strongly Agree
1	2	3	4	5

1. I always place the needs of others above my own.
2. I never find myself getting overly involved in others' problems.
3. For me to be happy, I need others to be happy.
4. I worry about how other people get along without me when I am not there.
5. I have great difficulty getting to sleep at night when other people are upset.
6. It is impossible for me to satisfy my own needs when they interfere with the needs of others.
7. I can't say no when someone asks me for help.
8. Even when exhausted, I will always help other people.
9. I often worry about others' problems.

Appendix F

Two-Dimensional Unmitigated Communion Scale

1. It's hard for me to be happy if others are unhappy.
    a. Because I care about people, it matters to me what they feel.
    b. I may worry too much about how other people feel.
2. I often find myself getting involved in others' problems.
    a. As a result, I may become over involved.
    b. Because people matter, their problems matter to me.
3. I worry about how other people get along without me when I am not there.
    a. I often need to fix interpersonal bumps in the road.
    b. Because I care about people, I wonder how they are doing.
4. It is hard for me to satisfy my own needs when they interfere with the needs of others.
    a. Because I care about people, I am motivated to help other people satisfy their needs.
    b. I guess I hope that other people will like and value me more if I am willing to make some sacrifices for them.
5. It is hard for me to say no when someone asks me for help,
    a. I often wonder if that person will like me if I say no.
6. I am worried by other peoples' problems.
    a. Peoples' problems matter to me.
    b. I feel this way because I feel responsible for others.
7. With some people, I am inclined to place the needs of others above my own.
    b. I genuinely care about the other person.
8. I can have trouble going to sleep at night when other people are upset,

a. I am concerned about the well-being of others.

9. Even when exhausted I will usually help my friends,

a. I am worried they won't like me if I don't.

10. It's hard for me to let other people know what I want.

a. I don't want them to become upset with me.

b. It is hard for me because other people's opinions and desires are important.

11. In a relationship it can be hard for me to tell a person to stop bothering me.

a. I care about the other person's feelings,

12. It can be hard for me to confront people with problems that come up.

a. I don't want to risk putting emotional distance between me and the other person.

b. I don't want to unnecessarily hurt the other person.

13. It can be hard for me to be assertive with another person.

a. Because, then I won't know what that person will think of me.

b. Because I think their thoughts and feelings are as valid as my own

14. It is hard for me to disagree with other people.

a. Because, I'm afraid they might become angry with me.

15. It is hard for me to let other people know when I am angry.

a. Because I am worried they won't like me.

b. Because I care about other people and how I affect chem.

16. It can be hard for me to stick to my own point of view and not be swayed by other people.

b. It is sometimes hard for me to stand my ground because I worry about what people will think.

17. It is hard for me to express my feelings to other people directly.

a. Because I want to avoid direct confrontation.

b. Because I care about other people and the impact my actions may have on those people.

18. It is hard for me to be assertive without worrying about hurting the other person's feelings.

a. I care how people will perceive me.

b. I genuinely care about others' feelings.

Appendix G

2-Way Social Support Scale

1. There is someone I can talk to about the pressures in my life
2. There is at least one person that I can share most things with
3. When I am feeling down there is someone I can lean on
4. There is someone in my life I can get emotional support from
5. There is at least one person that I feel I can trust
6. There is someone in my life that makes me feel worthwhile
7. I feel that I have a circle of people who value me
8. I am there to listen to other's problems
9. I look for ways to cheer people up when they are feeling down
10. People close to me tell me their fears and worries
11. I give others a sense of comfort in times of need
12. People confide in me when they have problems
13. If stranded somewhere there is someone who would get me
14. I have someone to help me if I am physically unwell
15. There is someone who would give me financial assistance
16. There is someone who can help me fulfil my responsibilities when I am unable
17. I help others when they are too busy to get everything done
18. I have helped someone with their responsibilities when they were unable to fulfil them
19. When someone I lived with was sick I helped them
20. I am a person others turn to for help with tasks
21. I give financial assistance to people in my life

Appendix H

Demographic Questionnaire

What is your sex?

____ Male
____ Female

How old are you?

_____

How do you usually describe yourself (can choose more than one)?

____ White
____ Black or African American
____ Hispanic or Latino/a
____ Asian or Pacific Islander
____ American Indian, Alaskan Native, or Native Hawaiian
____ Biracial or Multiracial
____Other