COMMUNAL COPING DURING STRESSFUL TIMES: STRESS CHARACTERISTICS AND
SOCIAL NETWORK AS ANTECEDENTS IN THE EXTENDED THEORETICAL MODEL
OF COMMUNAL COPING

By

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ABSTRACT

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Stressors are events in one's surroundings that may generate stress. People experienced

exacerbated stress, especially, during the COVID-19 pandemic. Instinctively, people engaged in

different coping patterns to handle threatening situations. As one of the coping mechanisms,

communal coping is defined as the shared appraisal and joint action towards a stressor (Afifi et

al., 2020). The benefits of communal coping have been examined in different contexts. However,

few studies have tested communal coping in the context of the social network. Therefore, this

study aimed to a) expand communal coping to the context of the social network, b) examine the

effects of stress characteristics and social network structures on communal coping, and c) test the

influences of communal coping on individuals' resilience and thriving. The results indicated that

the presence of a spouse or an intimate partner and community participation played vital roles in

the formation of communal coping. Moreover, communal coping at the network layer was

significantly positively related to one's resilience and thriving.

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INTRODUCTION

Stressors are events or conditions in one's surroundings that may trigger stress. Stress occurs when individuals perceive that they lack the resources necessary to handle a threatening situation (Lazarus and Folkman, 1984). During the unprecedented COVID-19 pandemic, individuals could experience exacerbated stress. Not only does the pandemic have a negative impact on individuals' physical health, but it also affects their psychological wellbeing. A recent study manifested that there were negative changes in physical activity, sleep, alcohol, and smoking among adults since the onset of the COVID-19 outbreak (Stanton et al., 2020). These changes were also associated with higher depression, anxiety, and stress symptoms during the pandemic. Multiple stressors have also been identified to increase levels of stress, anxiety, and depressive thoughts among students (Son et al., 2020). Multiple stressors may range from losing a loved one and financial difficulty to balancing work and life at home. Similarly, a study revealed that Americans have high COVID-19 stress exposure and some demographic subgroups appear particularly vulnerable to stress effects (Park et al., 2020). In addition, it is worthwhile to mention that people experience extreme uncertainty and stigma during the epidemic (Bagcchi, 2020). Instinctively, human beings who have experienced a stressor usually engage in different coping patterns.

As one of the coping mechanisms, the benefits of communal coping have been examined in different contexts, such as natural disasters, chronic illnesses, family relationships, and so on (Helgeson et al., 2018; Afifi et al., 2012; Afifi et al., 2006). However, few studies have examined communal coping in the context of social network structures. Thus, one major contribution of this study is to test stress characteristics and social network structures on the formation of

communal coping, and communal coping, which, in turn, has effects on one's resilience, and thriving.

Below a literature review of communal coping will be provided first. Then, it follows by the explanation of relationships among stress characteristics, social network structures, resilience, and thriving.

LITERATURE REVIEW

Types of Coping and Communal Coping

Coping is defined as cognitive and behavioral efforts to manage specific demands, in which individuals appraise demands as exceeding the resources of the person (Lazarus & Folkman, 1984, 1987). The process of coping involves two dimensions: appraisal and action (Lazarus, 1991). Appraisal refers to an individual's cognitive evaluations of a situation or a person-environment relationship. The appraisal dimension involves the process of perceiving the stressor as a problem (i.e., my problem, our problem, his/her problem). The action dimension indicates behavioral responses that intend to help the person cope adaptively with stressful events (Lazarus, 1991, p121). The action dimension usually implies responsibility (i.e., my responsibility, our responsibility, his/her responsibility). According to Lyons et al.(1998), there are four types of coping: individual coping, support seeking, support provision, and communal coping. Afifi et al. (2006) further developed this line of research and proposed five types of coping patterns, including independent coping, support seeking, directive support, parallelism, and communal coping. Independent coping occurs when individuals view a stressor as "my problem" and "my responsibility" to solve it. During this process, people tend to deal with the stressor alone or try to avoid it. Support seeking appears when people assess a stressor as "my problem" but "our responsibility" to solve it. In this circumstance, individuals prefer to seek

support from others while adjusting to and dealing with the stressor. Directive support refers to the individual perceiving a stressor as "your problem" and "your responsibilities" to solve it. For instance, family members interpret financial stress (which results from spending money mindlessly) as the child's problem and ask him/her to take responsibility (Afifi et al., 2006). Parallelism occurs when the individual views the stressor as "our problem" but "my responsibility" to solve it. Afifi et al. (2006) provided explanations for protective buffering and parallelism in the context of a divorced family. For example, each family member copes with the financial stress alone, in his/her way, even if the financial stress has affected everyone (Afifi et al., 2006).

Communal coping refers to shared appraisal and shared action towards a stressor (Lyons et al., 1998). As a cognitive dimension of communal coping, the appraisal is the extent to which individuals perceive their stress as an individual or collectively (i.e., our problem) (Afifi et al., 2006). The action, on the other hand, is a behavioral dimension. It involves joint action aimed at reducing the negative impact of the stressor (i.e., our responsibility) (Lyons et al., 1998). Communal coping emerges when individuals perceive the stressor as "our problem" and "our responsibility". Communal coping is a unique way of coping with stressors. It requires a shared appraisal and a joint action. The benefits of communal coping have been examined in a variety of contexts, including chronic illness, natural disasters, and so on (Helgeson et al., 2018; Afifi et al., 2012; Afifi et al., 2006). Besides, communal coping has been proved to offer higher relational quality, less psychological distress, and improved health behavior (Helgeson et al., 2018). Different from social support, communal coping creates mutual benefits for both parties' psychological well-being. For instance, in the study of couples with recently diagnosed type 2

diabetes, these results suggest that communal coping may be beneficial for both relationships and health (i.e., reducing both the patient and the partner's distress).

In previous studies, the concept of communal coping has been mixed with other similar concepts, such as dyadic coping and collective coping. Although there are several similarities between communal coping and dyadic coping, the divergence of these two coping mechanisms is obvious (Rentscher, 2019). Dyadic coping emphasizes mutual action more than appraisal; however, communal coping stresses the importance of shared appraisal in the first place, along with collaborative action. In other words, dyadic coping specifies that partners engage in individual coping at first and turn to dyadic coping if individual efforts fail to solve the problem, whereas communal coping emphasizes that partners can be involved in a shared appraisal or collaborative action at the very beginning of the problem regardless of whether the problem originated with one person.

In addition, according to Afifi et al.(2020), communal coping is also different from collective coping due to several factors. Firstly, communal coping can be described as a personal orientation. That is to say, people engage in communal coping because of the stressor itself or their wellbeing rather than a collectivistic goal or group welfare (Lyons et al., 1998). For instance, in the occurrence of collective events such as wars, natural disasters, where people are affected by the same stressors, joint efforts are required to deal with the issue. While the distinction between individualistic and collectivistic functions of coping determines the degree to which the individual is focused on problem-solving for the self or the group, collectivist orientation emphasizes sacrificing one's interest to achieve the common goal for the group. Differently, communal coping can be both individualistic and collectivistic, which indicates that it can achieve personal benefits and common interests at the same time.

Moreover, communal coping is fluid and interactive process and people may re-assess their coping strategies as their perceptions change in response to their environment (Folkman & Lazarus, 1980). Communal coping is different from social support since resources are shared rather than given to one person. During the communal coping process, people proactively work toward a solution together (Afifi et al., 2020). Most research focusing on individuals' resilience emphasizes the benefits of social support, such as support seeking and support provision. Given the differences between communal coping and social support, it is worth examining communal coping as an alternative coping pattern while dealing with stress.

The Extended Theoretical Model of Communal Coping

The Antecedents of Communal Coping

In the Extended Theoretical Model of Communal Coping, the nature of the stressor and one's social network structures are two important antecedents of the formation of communal coping (see Figure 1). The nature of the stressor affects the likelihood of engaging in communal coping (Afifi et al., 2020). Helgeson et al. (2018) argued that communal coping is less likely to happen when a stressor is easily managed individually. Also, they suggested that communal coping occurs when the involved parties can benefit from co-owning and co-managing the stressor.

Afifi et al. (2020) proposed several characteristics of stressors that influence the formation of communal coping, including type, chronicity, controllability, and severity. First, type of the stressor affects whether people are likely to engage in communal coping (Lyons et al., 1998; Afifi et al., 2020). Namely, stressors that are well suited for joint management are likely to encourage communal coping. In other words, stressors that simultaneously affect the whole community or network may naturally induce the community or network to collaborate in their

coping, whereas stressors that directly affect specific people in the community or network may cause coping alone. For instance, the stressors that require two or more people to cope together (e.g., child's education/ family financial issues) are more likely to influence individuals joining in the process of communal coping, whereas stressors that are better coped with alone might not be suitable for communal coping (e.g., depression, lost money). Consider the importance of stressor types on the formation of communal coping, and based on previous literature regarding stressors in the context of communal coping (Afifi et al.,2015; Afifi et al., 2016; Lawrence & Schigelone, 2002; Scheinfeld et al., 2021), this study mainly focuses on the following seven categories of stressors: (1) Jobs and work issues, (2) financial and monetary issues, (3) health issues, (4) family and relationship issues, (5) school and education issues, (6) social justice issues, and (7) others.

Second, chronicity implies the degree to which a stressor is chronic (i.e., long-lasting and persistent) (Afifi et al., 2020). Chronicity also affects the effectiveness of communal coping and the extent to which people enact it (Afifi et al., 2020). It entails prolonged periods of adjustment in face of recurrent demands (i.e., poverty, disability). To some degree, coping efforts need to be sustained, which requires time. Therefore, greater communal coping will occur if the stressor requires prolonged periods of adjustment. According to Helgeson et al. (2018), of all health threats, communal coping is particularly applicable to chronic illness because the health threat, by definition, persists. Moreover, one finding suggested that elderly residents engaged in mutually beneficial and supportive behavior toward their peers through reciprocal assistance between roommates while facing aging-related stressors, such as physical disabilities, financial strains, and other chronic stressors (Lawrence & Schigelone, 2002). In this study, we asked individuals to think about a major stressor that stressed them out in the past three months. This

time frame (May 2021 to July 2021) could be an optimal choice to study communal coping because individuals may experience exacerbated stress besides everyday stress due to the COVID-19 pandemic.

Third, controllability refers to one's perceived ability to handle the stressor (Afifi et al., 2020). Whether individuals feel they have control over a stressor is an important predictor of communal coping. For instance, divorce stressors, such as reducing spending, may be perceived as controllable, while other stressors, such as controlling the negativity of one's former spouse, may not be easy for the family to cope with (Holloway & Machida, 1991). That is to say, compared to changing family members' negative perceptions towards the other, cutting back expenses is perceived as easier to handle. In addition, greater communal coping will occur in the context of type 2 diabetes in which management strategies (i.e., focusing on changes in diet and exercise) are more amenable to partner involvement (Helgeson et al., 2018). However, in the context of type 2 diabetes, doing exercise that targets the lower back is easier for a partner to manage and engage in social support rather than communal coping since the partner does not have a problem with its own lower back.

Last, severity describes the degree of the stressor (i.e., intense and acute). As a stressor becomes more severe, individuals need to pool their resources to effectively manage it. The severity of a stressor may affect individuals' efficacy to engage in the process of communal coping. Several studies have examined the severity of stressors in the process of communal coping (Scheinfeld et al., 2021). For instance, a study explores the types of loss experienced due to COVID-19, such as loss of a loved one, loss of a job, loss of physical activity routine. The findings indicated that the association between communal coping and stressor severity might be curvilinear. Individuals may cope communally when a stressor becomes severe. However, when

the severity of the stressor exceeds a certain degree, communal coping could become overly burdensome and exacerbate the stress for the entire group (Scheinfeld et al., 2021).

Therefore, based on the previous findings and research, I propose the following hypotheses and a research question:

H1: There is a positive relationship between the chronicity of a stressor and a person's perceived communal coping.

H2: There is a positive relationship between the controllability of a stressor and a person's perceived communal coping.

RQ1: What is the relationship between the severity of a stressor and a person's perceived communal coping?

Stressors affect both the individual and their social network, and the social network influences how the individual copes with the stressor. According to the Extended Theoretical Model of Communal Coping (Afifi et al., 2020), social structures are one of the predictors of perceived communal coping. Social structures refer to the larger cultural environment or the conditions in which people live (Afifi et al., 2020). Pre-existing resources will also affect people's ability to engage in communal coping. Individuals with more extensive resources have a greater ability to mobilize collective action to cope with a stressor and prevent the loss of resources. As previously described, one approach to coping with a stressor is to retain resources from their social networks, which involves interpersonal coping rather than individual coping. Thus, one's social network structure may influence people's appraisal and action toward communal coping.

Social networks refer to nodes or actors who are connected by their relationships and ties (Hanneman & Riddle, 2005). Social networks can be categorized into a social environment and

perceived as one of the antecedents of communal coping. Furthermore, existing research has paid less attention to the relational environment and the coping history of a community or a family that might significantly influence people's ability to enact communal coping in the first place (Afifi et al., 2020). Therefore, it is significant to examine the relationships between social networks and communal coping.

In Lin et al. 's (1999) article about the effects of layers of social relations on mental health, individuals' social relationships are characterized at three different layers: the inner-most layer network, the sub-layer network, and the outer-layer network. The inner-most layer network constitutes a small number of alters and the ego, which includes intimate and intense interactions, and constructs strong ties with mutual sharing of confiding information (Lin et al., 1999). In this paper, we consider that the inner-most layer network consists of a significant other or an intimate partner. This obligation in this dyadic relationship constitutes a binding relationship. The presence of a spouse or an intimate partner plays a significant role in the process of coping. Lyons et al. (1988) suggested that members have a higher likelihood of being included in communal coping if they are the closest ones to the individual. The spouse or an intimate partner can be viewed as the closest person in one's life, therefore, the presence of a spouse or an intimate partner is important for both parties to enact communal coping.

Besides, relationship quality is also a key component of the engagement of communal coping. Relationship quality refers to the degree of intimacy, satisfaction, trustworthiness, and dependency a person has towards his/ her spouse or intimate partner. Research has found that good relationship quality among couples or intimate partners had positive effects on the perception of communal coping for the person with type 2 diabetes (Helgeson et al., 2017). Furthermore, people in close, satisfying relationships are willing to sacrifice their benefits and

are considerate of the other's needs, which makes them more inclined to cope communally (Lewis et al., 2006). Thus, people who have higher relationship quality will have a higher chance of engaging in communal coping.

Second, the sub-layer network involves interactions reflecting bonding relationships (Lin et al., 1999). Bonding relationships require a greater effort than one-time participation. Bonding relationships require that people frequently interact with each other and make a commitment to maintaining their relationships. This sub-layer network usually includes family members and close friends that interact on a weekly basis. Both sizes of the social network and the quality of the social network will affect communal coping. The more people in one's social network, the higher chance they will get support and pool resources from the network, which might enact a communal coping orientation. Likewise, according to Kahn & Antoucci's convoy theory (1980), individuals place network members in different concentric circles. The innermost circle represents the individual and the next circle represents those who are closest to the individual. The further they are placed in the circles, the less close they are to the individual. Lyons et al., (1988) added that members who are closest to the individual may be more likely to be included in the communal coping process. Namely, individuals have a higher chance to form communal coping if they are in close and satisfying relationships with their interpersonal networks. One empirical study showed that interpersonal networks have a great effect on the formation of communal coping among college students (Neely et al., 2017). The results indicated that communal coping has been demonstrated by athletes and their parents in facing deselection. Specifically, athletes and their parents both perceived selection as a stressful event and worked cooperatively towards it by engaging in conversations (i.e., using rationalization and positive reframing). Furthermore, Kam et al. (2018) investigated coping strategies between parents and

Latina/o adolescents while facing language brokering. The finding revealed that communal copers reported greater levels of brokering stress in the middle of the academic year compared to declined-ownership copers, although that significant difference dissipated by the end of the year (Kam et al., 2018).

Third, the outer-layer relationships reflect a broad range of individuals' engagement with others through participation and involvement with the community and other organizations (Reynolds et al., 2020). It is also known as the community-level network. Communities and organizations provide an individual a sense of belongingness. The ego's participation and engagement in a community fosters a sense of group belongingness, which, in turn, promotes shared appraisal and joint action towards the stressor. Moreover, the community includes people with similar interests and shared resources. Thus, members from the same organization or community are more likely to identify the same stressor and act toward it. One study (Leprince et al., 2018) explored athletes' communal coping to deal with shared stressors in teams. College athletes have experienced the same stressors on a sports team, such as problem-focused stressors, relationship-focused stressors, and so on. In addition, communal coping was reported by community members recovering from Hurricane Ike (Richardson & Maninger, 2016). The interactive process led participants to recognize that Hurricane Ike had caused a community-wide or mutual problem.

Thus, based on the previous literature, I propose the following hypotheses:.

H3: The a) presence and the b) relationship quality of the inner-most layer network are positively associated with a person's perceived communal coping at the inner-most layer.

H4: The a) sizes and the b) relationship quality of the sub-layer network are positively associated with a person's perceived communal coping at the sub-layer network.

H5: The community participation or involvement of outer-layer networks are positively associated with a person's perceived communal coping at the outer-layer.

The Outcomes of Communal Coping: Resilience and Thriving

The Extended Theoretical Model of Communal Coping posited that communal coping has the power to affect people's resilience and thriving (Afifi et al., 2020). Resilience refers to one's ability to adapt positively when facing significant adversity or stress (Smith et al., 2008). In this paper, both resilience and thriving signify the outcomes of communal coping. Although thriving is similar to resilience, thriving not only indicates an individual's ability to learn from adversity or stress, but also refers to one's efforts to learn, grow, and strengthen their personal and relational relationships (Feeney & Collins, 2015). In other words, individuals expand their perspectives, strengthen their social relationships and grow positively from their experiences (Afifi et al., 2019).

Theiss (2018) argued that communal coping is one way to cultivate resilience because communication about stress and handling the stressor together may increase one's self-efficacy to cope with challenging situations. According to Helgeson et al. (2017), communal coping also allows people to reappraise their stressors as less stressful because they have greater resources than they would alone. Meanwhile, communal coping creates shared resources. It can facilitate one's ability to deal with the stressor, which, in turn, improves resilience and thriving.

The findings from several studies have supported this perspective in the context of dyadic relationships. Communal coping was beneficial in reducing support gaps and ultimately stress between couples who had the genetic risk for serious illness (Smith et al., 2018). Also, another study (Zajdel et al., 2018) examined the relationships of actor communal coping, partner communal coping, and psychological health in type 2 diabetes. The results showed that actor

communal coping (the effects of one's own communal coping on one's outcomes) was associated with lower depressed mood, higher happy mood, and lower angry mood. And partner communal coping was linked to a higher happy mood (Zajdel et al., 2018), which proved that communal coping had a positive effect on individuals' thriving. Moreover, the study suggested that daily self-reports of communal coping links to better self-care behavior and better mental health at the end of each day, and improvements in the psychological wellbeing on the following day among couples in which one has type 2 diabetes (Zajdel et al., 2018).

In addition to intimate relationships, the influences of communal coping on resilience and thriving have been examined in the context of family relationships. One study indicated that communal coping indices quantifying shared support resources were negatively related to anxiety among sisters from families who experience hereditary breast and ovarian cancer (HBOC) (Koehly et al., 2008). Another study indicated that the cooperative coping action improves athletes' ability in focusing on their club team and increasing their training efforts (Neely et al., 2017). The finding implied that by adopting communal coping strategies, teams mobilize their collective psychosocial resources to withstand stressors and to sustain optimum performance under pressure (e.g., sharing information and building an action plan together, encouraging each other to remobilize themselves, reassuring a teammate to restore their confidence).

Moreover, several studies have found that communal coping leads to enhanced resilience in the context of natural disasters or disease breakouts. A study that examined the impacts of Hurricane Ike on citizens of a town in Texas showed that Downey residents engaged in communal coping behaviors that enhanced the community's resiliency (Richardson & Maninger, 2016). The results from an investigation of a community exposed to three wildfires support the

predicted negative association between uncertainty and psychological well-being, as well as the

mediating role of communal coping in the recovery process (Afifi et al., 2012).

Hence, based on the Extended Theoretical Model of Communal Coping and previous

literature, we proposed the following hypothesis.

H6: Communal coping is positively related to individuals' a) resilience and b) thriving.

Figure 1.

Stress Characteristics, Social Network Layers, Communal Coping and Resilience
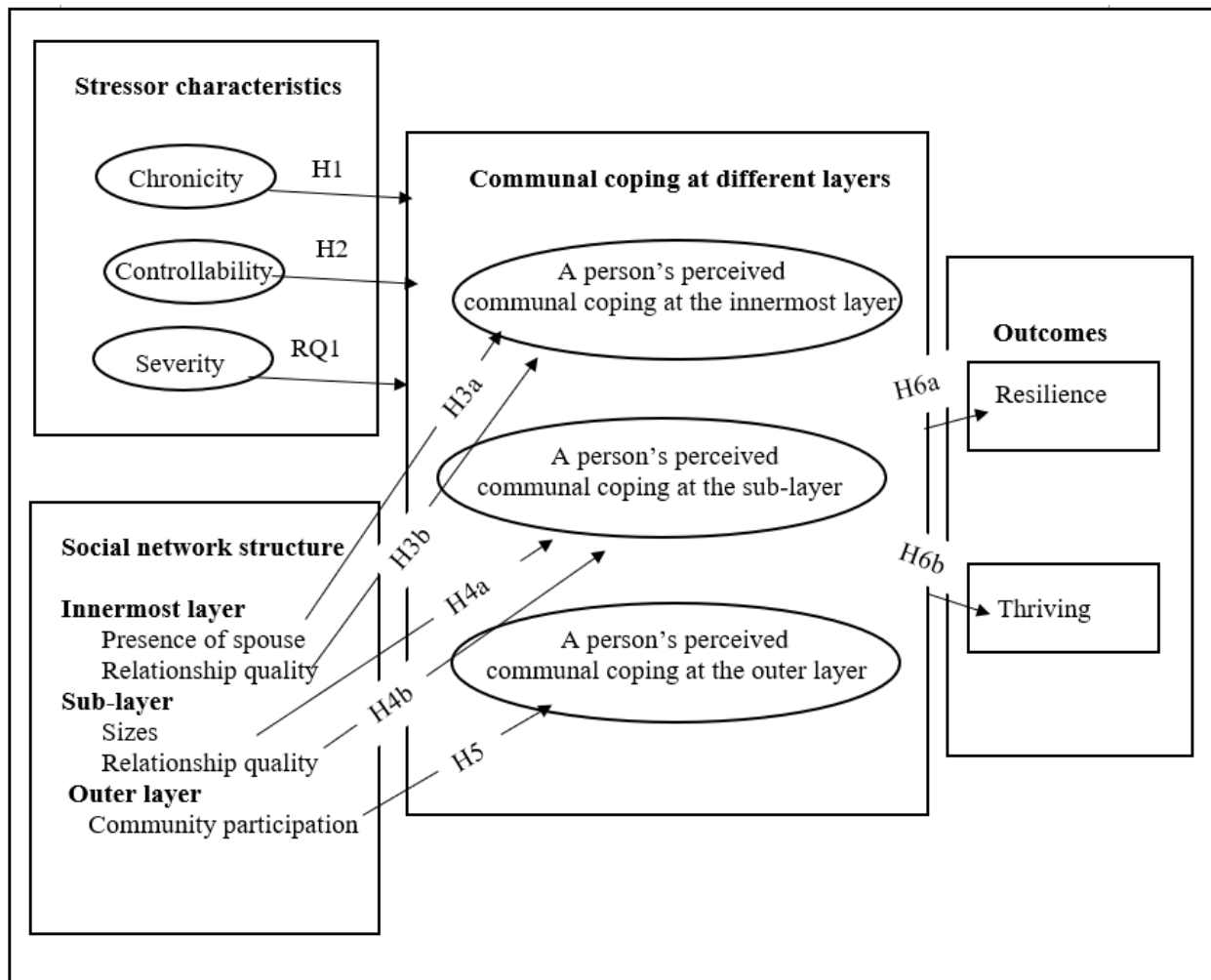
METHOD

Sample

Data for this study were collected through an online Qualtrics survey conducted in July 2021. One hundred and fifty U.S. participants were recruited from MTurk and 150 undergraduate participants were recruited via SONA, a student subject pool, at a large Midwestern university. For the MTurk sample, two qualification requirements were added to ensure responses' quality. First, the location was set up in the United States to meet the requirements for the study. Second, to ensure the response's quality, HIT Approval Rate for all requests' HTIs was set up greater than 80. Out of 204 participants who have completed the study, 44 were excluded because they failed to pass the attention check. For the 54 SONA participants who have completed the study, 8 were excluded because of duplicate responses. In total, 206 responses were valid and used for the following analysis.

In total, approximately half of the sample (50.0%) was male, and the rest were female (48.5%). Half of the participants (54.9%) have a spouse or an intimate partner. The average sample age was 34.81 years (*SD=13.21, range 18-72*), and their race/ethnicity was White/Caucasian (72.8%), Black/African American (13.1%), Latino/Hispanic (7.3%), Asian (6.3%), and Native American (0.5%). Half of the participants had obtained a bachelor's degree (52.4%). The rest of the participants' educational levels were as follows: Less than high school (0.5%), High school graduate (7.7%), Some college (26.9%), Advanced degree (11.5%).

Procedure

Upon participating in the study, participants were asked to read and give their consent to participate before they could continue. At the beginning of the survey, participants were prompted to think about a stressor and then described it in detail. Later on, participants were

asked to indicate the type, the severity, the chronicity, and the controllability of the stressor. In addition, participants were asked to write their intimate partner's or spouse's name down if they had one. Also, they were required to name 10 people in their social network that they had weekly interactions. Subsequently, they were asked to indicate their attendance at community activities. Lastly, resilience and thriving were assessed by asking participants questions regarding their abilities to adapt positively when facing significant adversity or stress. Other control variables, such as neuroticism and demographic variables were also assessed. At the end of the study, MTurk participants received 0.8 dollars for completing the survey and undergraduate participants obtained 0.25 credits for finishing the study.

Measures

Stressor characteristics. Participants were asked to recall a major stressor that has been bothering them or stressing them out in the last three months. After participants indicate a major stressor using a few words, they were asked to elaborate the stressor in detail in a text entry box. In addition, a series of questions were posed to measure the type, perceived severity, controllability, and chronicity of the stressor.

> *Type*. Based on previous literature regarding communal coping (Scheinfeld et al., 2021; Neely et al., 2107; Zajdel et al., 2018), types of stressors were divided into seven categories: Jobs and work issues (32.5%), Financial and monetary issues (21.4%), Health issues (13.6%), Family and relationship issues (18.4%), School and education issues (11.2%), Social justice issues (1.0%), and others (1.9%).

> *Perceived Severity*. Adapted from Feng & MacGeorge (2010), a set of three items were used to measure participants' perceived severity of the stressor (*e.g., "This was a major problem", "The problem was an important one", or "The problem was a significant*

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one"). Participants responded on a 1 (*Strongly disagree*) to 5 (*Strongly agree*) scale.

Responses to the three items were averaged to form a perceived severity scale (*M=4.30,*

SD=.61, α=.72).

Controllability. Controllability implies whether an individual has the ability to manage

the stressor. According to Gannon and Pardie (1989), the perceived general

controllability is based on an individual's self-assessment of their degree of control. In

this study, participants were required to assess the degree of control they perceived on a

set range (*1= "I did something or took action which solved the problem"; 2= "I did*

something or took action which reduced the problem"; 3= "I tried to do something about

the problem, but it didn't help"; 4= "I didn't do anything about the problem; nothing

would have helped"). Items had been reverse coded to form the controllability. The

average controllability was 2.89 (*SD= .86*).

Chronicity. According to Gannon and Pardie (1989), chronicity refers to the duration of

the stressor. Participants were asked to indicate the number of days out of 90 days that

the major stressor had affected them. The average days of experiencing a major stressor

were 48.64 days (*SD=26.60, range 3-90*).

Social network structure and characteristics. Three types of social network layers were

assessed to indicate their social relationships: inner-most layer network, sub-layer network, and

outer-layer network. In addition, social network characteristics, such as the presence and the

relationship quality of the inner-most layer network, the size and the relationship quality of the

sub-layer network, and community participation of the outer layer network, were measured.

Inner-most layer network. The inner-most layer network refers to binding relationships.

It involves intimate partners and significant others.

Presence. The presence of the inner-most layer network was measured by whether a participant currently had a spouse or an intimate partner. Modified from Lin et al. (1999), "1" represented "Yes" and "0" represented "No". Moreover, participants were further asked to write their spouse or intimate partner's First name and Last initial (i.e., Andy.S).

Relationship quality. Adapted from the Perceived Relationship Quality Component (PRQC) (Fletcher et al., 2000), relationship quality was measured by asking questions about relationship satisfaction, intimacy, trustworthiness, dependency, and closeness (*ranging from 1 = "Not at all" to 5 = "Extremely"*). A set of five items were averaged to form the relationship quality (*M=4.15, SD=.76, α=.86*).

Sub-layer network. The sub-layer network involves interactions that reflect bonding relationships. It includes close friends, family, or people with whom participants interact on a weekly basis.

Network size. Network size was measured by the total number of people that the participant named. Based on Lin et al. (1999), participants were asked to identify up to 10 people that they interacted with on a weekly basis, excluding their intimate partner and spouse if applicable, by writing their First name and Last initial (i.e., Andy.S). The number of people nominated was used to indicate the size of the participant's sub-layer network (*M=6.26, SD=3.56*).

Relationship quality. Relationship quality was assessed by three items: satisfaction, closeness and intimacy. Participants were told to rate their satisfaction, closeness and intimacy with each person they named. The averaged

satisfaction, closeness, and intimacy were calculated across a participant's sub-layer network. Satisfaction and closeness were highly correlated with one another ($r = .790$, $p < .01$) and therefore they were combined to represent an indicator of relationship quality. Since intimacy was only moderately correlated with satisfaction ($r = .357$, $p < .01$) and closeness ($r = .478$, $p < .01$), intimacy was used as a separate indicator from satisfaction and closeness.

Outer-layer network. The outer-layer network refers to community ties which were measured by community engagement and local organizational involvement.

> ***Community participation***. According to Reynolds et al. (2020), community engagement refers to the level of participants' attendance and the frequency they do voluntary work for a group or organization. Therefore, the community ties of participants were identified by having participants indicate their levels of attendance and how often they do volunteer work for groups or organizations (*0= "Never", 6= "Several times a week"*). Two items were averaged to form the community participation (*M= 2.44, SD= 1.48, α=.78*).

Communal coping. Based on Afifi et al.(2020), communal coping was measured through two dimensions: perceived appraisal and perceived action. In this paper, I modified Afifi et al. (2020) to assess communal coping at three layers of social relationships: the inner-most layer, the sub-layer, and the outer layer.

> ***Communal coping at the inner-most layer.*** In terms of the inner-most layer network, communal coping was measured using a set of 14 items (e.g., *"My spouse/partner is affected by this major stressor.", "This major stressor is my and my spouse/partner's problem.", "My spouse/partner and I have joined together to deal with this major*

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stressor.") (see Appendix A). Among them, seven items were reverse coded (e.g., *"I feel like I am the only one with the ownership of this major stressor."*). Participants responded on a 1 (*Strongly disagree*) to 5 (*Strongly agree*) scale. For participants who don't have a spouse or an intimate partner, they could choose "strongly disagree" or other options that they thought appropriate. An exploratory factor analysis (EFA) revealed a similar two-factor pattern (i.e., appraisal and action) as suggested in Afifi et al. (2020). Responses to the 14 items were averaged to form the communal coping at the inner-most layer measurement for each participant (*M=2.85, SD=.74, α=.75*).

Communal coping at the sub-layer network. Concerning the sub-layer network, communal coping was measured using a set of 14 items (e.g., *"My personal network is affected by this major stressor.", "My personal network and I have joined together to deal with this major stressor.")* (see Figure 2). Among them, seven items were reverse coded (e.g., *"I feel like I am the only one with the ownership of this major stressor.").* Participants responded on a 1 (*Strongly disagree*) to 5 (*Strongly agree*) scale. Responses to the 14 items were averaged to form the communal coping at the sub-layer network (*M=2.98, SD=.59, α=.74*).

Communal coping at the outer-layer network. In respect to the outer layer network, communal coping was measured using a set of 14 items (*e.g., "My community group/organization and I have joined together to deal with this major stressor.", "This major stressor is my and my community group/organization's problem.").* Similar to the inner-most layer and the sub-layer, seven items were reverse coded. Participants respond on a 1 (*Strongly disagree*) to 5 (*Strongly agree*) scale. Responses to the 14 items were

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averaged to form the communal coping at the outer-layer network (*M=2.81, SD=.64, α=.75*).

Combining the sub- and outer-layer to the network communal coping. An EFA was conducted on the communal coping measures to assess their dimensionality. The results indicated that items for sub-layer communal coping and outer-layer communal coping loaded one dimension, separated from communal coping at the innermost level and individual coping (see Table 1 and Table 2). Given the results of EFA and that sub-layer and outer layer communal coping were strongly correlated (r= .68) we combined these two layers to form a network layer when testing the influence of communal coping on resilience and thriving (H6a and H6b). A set of 21 items were used to assess the communal coping at the network layer (i.e., the combined sub-layer and community-layer of relationships). Participants responded on a 1 (*Strongly disagree*) to 5 (*Strongly agree*) scale. Responses to the 21 items were averaged to form the communal coping at the network layer scale (*M=3.11, SD=1.11, α=.87*).

Resilience. Modified from Smith et al. (2008), resilience was measured by one's ability to adapt positively when facing significant adversity or stress. A set of three items (e.g., "*I could balance work quickly after this major stressor occurred*", "*It didn't take me long to recover from this major stressor*", "*I came through the major stressor with little troubles.*") were used to assess participants' resilience. Participants responded on a 1 (*Strongly disagree*) to 5 (*Strongly agree*) scale. Responses to the three items were averaged to form the resilience scale (*M=3.42, SD=.90, α=.67*). Higher scores indicated higher levels of resilience.

Thriving. Adapted from Afifi et al. (2019), a set of three items were used to measure participants' thriving (*e.g., "I can deal with whatever comes my way", "Coping with stress*

strengthens me as a person", "Coping with stress strengthens my family relationships").

Participants responded on a 1 (*Strongly disagree*) to 5 (*Strongly agree*) scale. Responses to these

three items were averaged to form the thriving measurement for each participant (*M=3.79,*

SD=.95, α=.80). Higher scores indicated higher levels of thriving.

Control variables. Six control variables were also assessed: source of the sample, gender, age,

ethnicity, education level, and neuroticism.

Except for demographic variables, the source of the sample and neuroticism were also

measured. First, an independent t-test had been conducted to compare to SONA sample and the

MTurk sample. Given the differences between the two samples, I included the source of the

sample as an important control variable. The MTurk was coded as "1" and the SONA sample

was coded as "0".

Second, previous studies have shown that neuroticism was negatively associated with

resilience (Campbell-Sills et al., 2006; Rolli et al., 2002; Balgiu et al., 2017). Likewise, thriving

is similar to resilience, however, it's more related to wellbeing. Several studies also suggested

that neuroticism was negatively correlated with psychological well-being (Górnik-Durose &

Boroń, 2018). Therefore, neuroticism was controlled to examine the relationship between

resilience and thriving. Adapted from Donnellan et al. (2006), the neuroticism scale consists of

two items, ranging from (*Strongly disagree*) to 5 (*Strongly agree*). Sample items include "I have

frequent mood swings" and "I get upset easily." Responses to the two items were averaged to

form the neuroticism measurement of each participant (*M=3.01, SD=1.18, α=.75*).

Figure 2.

An Example of Communal Coping Questions for the Sub-layer Network

For the major stressor that you have mentioned: [the stressor input by the participant], we want to understand to what extent your personal network shares the problem with you.

By personal network, we mean people with wo you regularly interact with on a weekly basis. Previously, you have nominated these people in your personal network: [nominee 1, nominee 2, nominee 3, nominee 4, nominee 5, nominee 6, nominee 7, nominee 8, nominee 9, nominee 10 if there is any]

Please indicate your agreement or disagreement with the following statements involving your personal network.

	Strongly disagree	Somewhat disagree	Neither agree nor disagree	Somewhat agree	Strongly agree
Shared Appraisal My personal network is affected by this major stressor.					
This major stressor is my and my personal network's problem.					
This major stressor influences the lives of others in my personal network.					
I feel like I share ownership of this major stressor with my personal network.					
Joint Action My personal network and I have together to deal with this major stressor.					
I get support from my personal network to handle this major stressor.					
I depend on others in my personal network to manage this major stressor.					

Table 1.

Exploratory Factor Analysis of Communal Coping Items at the Sub-layer and the Outer-layer

Network

Variable	Factor		
	1	2	3
Outerlayer_Apprisal3	.861		
Sublayer_Apprasial3	.859		
Sublayer_Appraisal4	.852		
Outerlayer_Apprasial2	.845		
Outerlayer_Apprasial1	.837		
Sublayer_Apprasial2	.820		
Sublayer_Apprasial1	.818		
Outerlayer_Apprisal4	.786		
Outerlayer_Action3	.782		
Outerlayer_Action1	.769		
Sublayer_Action3	.744		
Sublayer_Action1	.721		
Outerlayer_Action2	.703		
Sublayer_Action2	.607		
Indiviudal_Action2r		.832	
Indiviudal_Action4r		.817	
Indiviudal_Action3r		.768	
Indiviudal_Action1r		.598	
Indiviudal_Apprisal3r			.815
Indiviudal_Apprisal2r			.776
Indiviudal_Apprisal1r			.710
Eigenvalues	9.446	3.179	1.404
Total variance explained, %	44.98	15.14	6.69

Note. Pattern matrix reflects rotated factor loadings. Sublyaer_Apprasial = Shared appraisal at

the sub-layer network (i.e., interpersonal network that interact with on a weekly basis),

Sublayer_Action = Joint action at the sub-layer network, Outerlayer_Apprisal = Shared appraisal

at the outer-layer network (i.e., communities/organizations), Outerlayer_Action = Joint action at

the outer-layer network, Indiviudal_Apprisalr = Shared appraisal at the individual level (reverse

coded), Indiviudal_Actionr = Joint action at the individual level (reverse coded).

Table 2.

Exploratory Factor Analysis of Communal Coping Items at the Inner-most Layer Network

Variable	Factor			
	1	2	3	4
Innermost_Appraisal3	.950			
Innermost_Appraisal1	.893			
Innermost_Appraisal2	.877			
Innermost_Appraisal4	.869			
Indiviudal_Action2r		.816		
Indiviudal_Action4r		.788		
Indiviudal_Action1r		.741		
Indiviudal_Action3r		.740		
Indiviudal_Apprasial3r			.896	
Indiviudal_Apprasial2r			.883	
Indiviudal_Apprasial1r			.748	
Innermost_Action2				.948
Innermost_Action1				.908
Innermost_Action3				.792
Eigenvalues	5.103	3.210	1.292	1.085
Total variance explained, %	36.45	22.93	9.23	7.75

Note. Pattern matrix reflects rotated factor loadings. Innermost_Apprisal = Shared appraisal at the innermost layer (i.e., a spouse/ an intimate partner), Innermost Action = Joint action at the innermost layer, Individual_Appraisalr = Shared appraisal at the individual level (reverse coded), Indiviudal_Actionr = Joint action at the individual level.

RESULTS

Descriptive Results

The majority of participants for both SONA and MTurk were White and gender was equally distributed for both samples. The average age of MTurk participants was 38.9 years, whereas the average age of SONA participants was 20.59 years. Also, the majority education level of the MTurk sample was bachelor's degree, while the education level of the SONA sample was some college students and high school graduates.

Furthermore, the frequency of types of stressors was summarized in Table 3. Jobs and work issues (32.5%) and Financial and monetary issues (26.3%) were rated the most two common types of stress among the MTurk sample, while School and education issues (43.5%) and Jobs and work issues were rated the most two concerning stressors among the SONA sample. One possible reason for this was that the SONA sample consists of undergraduate students, for whom the major concern is schoolwork. Overall, the most common stressor for both samples was Jobs and work issues (32.5%).

In addition, independent t-tests had been used to compare these two samples on thriving, resilience, neuroticism, and network size (see Table 4). In regard to thriving, the data indicated that on average, the MTurk participants (*M= 3.68, SD=.91*) were more likely to recover from adversity, learn new skills, and expand social relationships compared to the SONA sample (*M=3.51, SD=.88*). When it comes to resilience, the average score of resilience for the MTurk sample was 3.48 (*SD= .95*), which was slightly higher than the SONA sample (*M= 3.24, SD=.71*). Besides, with reference to neuroticism, the results showed that the average neuroticism score of the MTurk sample (*M= 3.05, SD= 1.24*) was a little higher than the SONA sample (*M=2.87, SD= .96*), which indicated that on average, MTurk participants were more neurotic

than the SONA sample. Notwithstanding, the average network size for these two samples was

almost the same. The average network size for the MTurk sample was 6.26 (*SD= 3.69*), while for

the SONA sample was 6.28 (*SD= 3.12*). To control for the differences between the two samples,

I have added the sample source as a control variable in the following analysis.

Table 3.

Frequency of Stressor Types Among MTurk and SONA Samples

Stressor Types	MTurk		SONA		Total	
	Count	%	Count	%	Count	%
Jobs and work issues	52	32.5%	15	32.6%	67	32.5%
Financial and monetary issues	42	26.3%	2	4.3%	44	21.4%
Health issues	26	16.3%	2	4.3%	28	13.6%
Family and relationship issues	32	20%	6	13%	38	18.4%
School and education issues	3	1.9%	20	43.5%	23	11.2%
Social justice issues	2	1.3%	0	0%	2	1%
Other	3	1.9%	1	2.2%	4	1.9%
Total	160	100%	46	100%	206	100%

Table 4.

Independent T-tests Between SONA and MTurk on Thriving, Resilience, Neuroticism, and

Network Size

Variable	Source Origin	N	Mean	Std. Deviation	t	Sig.(2-tailed)
Thriving	MTurk	160	3.68	.91	1.12	.07
	SONA	46	3.51	.88		
Resilience	MTurk	160	3.47	1.06	1.85	.26
	SONA	46	3.24	.95		
Neuroticism	MTurk	160	3.05	1.24	1.07	.29
	SONA	46	2.87	.96		
Network Size	MTurk	160	6.26	3.69	-.05	.96
	SONA	46	6.28	3.11		

Hypotheses Testing

Bivariate correlations among key variables are reported in Table 5. Hierarchical

regression analyses were conducted to examine the impact of variables on communal coping at

the inner-most layer, at the sub-network layer, and the outer-layer in three separate models (see

Table 6). After accounting for control variables, the regression analyses in Block 2 examined

how stressor characteristics, namely, severity (RQ1), chronicity (H1), and controllability (H2) of

the stressor, and other network characteristics (H3a, H3b; H4a, H4b; H5) were associated with

communal coping at the three layers.

First, RQ1 asked about the relationship between the severity of a stressor and perceived

communal coping at three different layers. The results indicated that the severity of a stressor

was not associated with a person's perceived communal coping at the inner-most layer (β=.10,

p=.19), the sub-layer (β=.10, p=.19), and the outer-layer (β=.07, p=.40). In addition, H1

proposed that there was a positive relationship between the chronicity of a stressor and a

person's perceived communal coping. However, the results did not support the hypothesis at the

innermost layer (β=.11, p=.14), the sub-layer (β=-.03, p=.72), and the outer-layer (β=-.01,

p=.85). Similarly, H2 stated that there was a positive relationship between the controllability of a

stressor and a person's perceived communal coping. The data indicated that there was not a

significant relationship between the controllability of a stressor and a person's perceived

communal coping at the innermost layer (β=.02, p=.83), the sub-layer (β=.02, p=.75), and the

outer-layer (β=.06, p=.39), thus H2 was not supported.

In Block 3, the associations between social network structures and a person's perceived

communal coping at three layers were assessed. As predicted in H3, the presence of the

spouse/an intimate partner exhibited a significant positive relationship with a person's perceived

communal coping at the inner-most layer (β=.31, p<.001), but the relationship quality was not

related to the perceived communal coping at the inner-most layer (β=.17, p=.45). H4 suggested

that the a) sizes and the b) relationship quality of the sub-layer network are positively associated

with a person's perceived communal coping at the sub-layer network, however, the results indicated no such relationship between network size and a person's perceived communal coping at the sub-layer network ($ß=-.06, p=.43$). Correspondingly, the results demonstrating the relationship quality of the sub-layer network was not associated with a person's perceived communal coping at the sub-layer network ($ß=.09, p=.23$). Furthermore, the results exhibited a significant positive relationship between the community participation at the outer-layer network and a person's perceived communal coping at the outer-layer network ($ß=.25, p<.01$), which supports H5.

Given the factor analysis of items for communal coping, sub-layer and community-layer communal coping were combined as network-layer communal coping (see Table 7). Likewise, hierarchical regression analyses were conducted to examine predictors of perceived communal coping at the inner-most and the network layer. In terms of stress characteristics (i.e., severity, controllability, and chronicity), the data showed that severity was not associated with a person's perceived communal coping at the network layer ($ß=.14, p=.05$), so did controllability ($ß=.05, p=.49$) and chronicity ($ß=-.11, p=.10$). In the matter of social network structures, the results suggested that network size ($ß=.03, p=.63$) was not related to perceived communal coping at the network layer, however, the relationship quality of the sub-layer ($ß=.27, p<.001$) and community participation ($ß=.24, p<.01$) were positively associated with a person's perceived communal coping at the network layer (i.e., the combined sub-layer and community-layer of relationships).

Similarly, hierarchical regression analyses (see Table 8) were conducted to examine the effects of communal coping on thriving (H6a) and resilience (H6b) in two separate models entered in four blocks (See Table 6). The regression analyses in Block 4 examined the impacts of communal coping on resilience and thriving. H6 proposed that a person's perceived communal

coping is positively associated with a) resilience and b) thriving. In terms of resilience, the results showed that a person's perceived communal coping at the inner-most layer was positively associated with resilience (*ß=.17, p<.05*). Likewise, a person's perceived communal coping at the network layer was significantly positively associated with resilience (*ß=.29, p<.001*). When it comes to thriving, the results suggested that there was no relationship between a person's perceived communal coping at the inner-most layer (*ß=.03, p=.64*) and thriving. However, a person's perceived communal coping at the network layer was positively related to thriving (*ß=.24, p<.01*).

Table 5.

Bivariate Correlations Among Control Variables and Independent and Dependent Variables

Variables	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
1. Gender															
2. Age	.05														
3. Ethnicity	.12	-.14													
4. Education	-.18*	.28**	-.04												
5. Neuroticism	-.10	-.12	.01	.13											
6. Severity	.12	.31**	.10	.08	-.09										
7. Controllability	-.01	.01	.06	.07	-.02	-.13									
8. Chronicity	.18*	.07	-.05	-.18**	-.14*	.27**	-.18**								
9. Sublayer_Size	.12	.01	.07	.09	.11	.15*	.11	.01							
10. Sublayer_Relationship quality	-.11	.12	-.04	.31**	.24**	-.00	.05	-.14*	.02						
11. Community participation	-.14*	-.02	-.06	.36**	.15*	-.00	.11	-.17*	.26**	.34**					
12. Communal coping (innermost layer)	.11	.02	.03	.09	.03	.14*	-.02	.12	.10	.10	.17*				
13. Communal coping (network layer)	-.17*	.09	-.05	.32**	.38**	.07	.06	-.20**	.15*	.46**	.42**	.29**			
14. Resilience	-.11	.02	-.06	.29**	.10	-.08	.23**	-.34**	.16*	.39**	.31**	.14*	.45**		
15. Thriving	.04	.10	.03	.19**	-.12	.11	.16*	-.18**	.20**	.19**	.23**	.17*	.28**	.57**	

Note: Sublayer_Size = sizes of the sub-layer network, Sublayer_Relationship quality = relationship quality of sub-layer network, Communal coping (innermost layer) = communal coping at the inner-most layer,

Communal coping (network layer) = communal coping at the network layer (i.e., the combined sub-layer and community-layer of relationships).

*p<.05, **p<.0

Table 6.

Predictors of Perceived Communal Coping at the Three Layers As Hypothesized

	Perceived communal coping at the inner-most layer	Perceived communal coping at the sub-layer network	Perceived communal coping at the outer layer network
Block 1: Control Variables			
SONA/MTurk	.07	-.18	-.09
Gender	.13	.01	-.05
Age	-.05	.12	.08
Ethnicity	.02	.01	-.01
Education level	.09	.23**	.18*
Neuroticism	.02	.08	.18*
ΔR^2	.00	.03	.05
Block 2: Stress Characteristics			
Severity	.10	.10	.07
Controllability	.02	.02	.06
Chronicity	.11	-.03	-.01
ΔR^2	.01	.02	.04
Block 3: Social Network Structure			
Spouse presence	.31***		
Relationship quality (Inner)	.17		
Network size		-.06	
Relationship quality (Sub)		.09	
Community participation			.25**
ΔR^2	.10	.02	.09
N	206	202	206

Note. Relationship quality (Inner) = relationship quality of the inner-most layer, Relationship quality (sub) = Relationship quality of the sub-layer network. Relationship quality of the sub-layer used intimacy as an indicator. The index combining satisfaction and closeness was a significant predictor of any the outcome variable across the models.

*p<.05.**p<.01.***p<.001.

Table 7.

Predictors of Perceived Communal Coping at the Inner-most and Network Layer

	Perceived communal coping at the inner-most layer	Perceived communal coping at the network layer
Block 1: Control Variables		
SONA/MTurk	.07	.11
Gender	.13	-.11
Age	-.05	.03
Ethnicity	.02	-.03
Education level	.09	.20**
Neuroticism	.02	.33***
ΔR^2	.00	.22
Block 2: Stress Characteristics		
Severity	.10	.14
Controllability	.02	.05
Chronicity	.11	-.11
ΔR^2	.01	.23
Block 3: Social Network Structure		
Spouse presence	.31***	
Relationship quality (Inner)	.17	
Network size		.03
Relationship quality (Sub)		.27***
Community participation		.24**
ΔR^2	.10	.36
N	206	202

Note. Relationship quality (Inner) = relationship quality of the inner-most layer, Relationship

quality (sub) = Relationship quality of the sub-layer network. Relationship quality of the sub-

layer used intimacy as an indicator.

The index combining satisfaction and closeness was a significant predictor of any the outcome

variable across the models.

*p<.05.**p<.01.***p<.001.

Table 8.

Perceived Communal Coping, Resilience, and Thriving

	Resilience	Thriving
Block 1: Control Variables		
SONA/MTurk	.02	-.02
Gender	-.06	.04
Age	-.05	.06
Ethnicity	-.06	.03
Education	.25***	.20*
Neuroticism	.06	-.15*
ΔR^2	.06	.03
Block 2: Stress Characteristics		
Severity	.04	.18*
Controllability	.17*	.10
Chronicity	-.27***	-.20**
ΔR^2	.15	.08
Block 3: Social Network Structure		
Spouse presence	.01	.12
Relationship quality (Inner)	.84***	.71**
Network size	.12	.13
Relationship quality (Sub)	.30**	.15*
Community participation	.07	.08
ΔR^2	.25	.14
Block 4: Perceived Communal Coping		
Perceived communal coping at the inner-most layer	.17*	.03
Perceived communal coping at the network layer	.29**	.24**
ΔR^2	.30	.17
N	206	206

Note. Relationship quality (Inner) = relationship quality of the inner-most layer, Relationship

quality (sub) = Relationship quality of the sub-layer network. Relationship quality of the sub-

layer used intimacy as an indicator.

The index combining satisfaction and closeness was a significant predictor of any the outcome

variable across the models.

*p<.05.**p<.01.***p<.001.

DISCUSSION

The dual purposes of this study were to a) statistically test the effects of stress characteristics and social network structures on the perceived communal coping, b) examine associations among communal coping, resilience, and thriving. The results indicated that in partial support of the Extended Theoretical Model of Communal Coping, which proposed that social network structures (presence of innermost-layer network, relationship quality of the sub-layer network, and community participation of the outer-layer network) had effects on communal coping. In addition, communal coping was significantly associated with resilience and thriving. The following paragraphs describe the implications of these results and offer directions for future research on communal coping.

Operational Definition for Communal Coping at Different Layers

By conducting the EFA, the findings showed that two-factor structures at the inner-most level were consistent with previous interpersonal literature. However, the sub-layer and outer layer structures didn't show the two factors, and they loaded on one dimension, which indicated that they were all an index of the same latent construct. One possible explanation is that the language usage of the communal coping measures for the sub-layer and outer-layer networks is indistinguishable to participants. Besides, a previous study that examined communal coping in the context of a wildfire threat did not focus on the outer-layer network (Afifi et al., 2016). The findings revealed that spouse/partners were rated as the most common person that the participants would engage in communal coping, followed by their friends, their extended family, and their children.

Therefore, to differentiate communal coping at these two different layers, future studies may revise or polish the language usage, and modify the operational definition of appraisal and action at those two layers.

Stress Characteristics, Social Networks Structures, and Communal Coping

The first research question asked the association between the severity of a stressor and perceived communal coping. The results indicated that the severity of a stressor was not associated with a person's perceived communal coping at three layers: the inner-most layer, the sub-layer, and the outer-layer, which contradicted previous studies. One possible reason for this is that previous studies focused on one specific type of the stressor, whereas this study concentrated on several different types of stressors. Types of stressors played an important role in the formation of communal coping.

Furthermore, the first two hypotheses inquired about the relationships between stress characteristics (controllability and chronicity) and perceived communal coping. However, controllability and chronicity of the stressor were not related to perceived communal coping, which was contradicted with previous studies (Helgeson et al., 2018; Lawrence & Schigelone, 2002; Holloway & Machida, 1991). Notwithstanding, previous studies mainly concentrated on one specific context or stressor, however, in this study, we examined multiple stressors. Thus, the possible explanation for these non-significant findings is that the formation of communal coping depends on the interaction effects of the stressor type and stress characteristics. Stressors that affect the whole community or network may naturally induce the community and network to work collectively in their coping, whereas, other stressors are more individual in nature, namely, directly affect the individual in the community or network influence the individual to cope alone. By analyzing the content of open-ended questions, we found out that the stressor that a person

experienced in a long period was either an individual-related stressor or co-owned stressor (e.g., pets issue, relationship conflicts, depression). The formation of the communal coping was not related to the length of the period or the ability to control the stressor, but the type of the stressor. Namely, the perception of stressors' direct or indirect effects on the individual itself has largely affected the formation of communal coping.

Moreover, H3, H4, and H5 concerned the relationships between the characteristics of social network structures and perceived communal coping. As predicted, the presence of a spouse or an intimate partner was significantly positively associated with a person's perceived communal coping. The result is in line with the Lyons et al., (1998) explanation, members have a higher likelihood of being included in communal coping if they are the closest one to the individual. The spouse or an intimate partner can be viewed as the closest person in one's life, therefore, the presence of a spouse or an intimate partner is important for both parties to enact communal coping. However, the relationship quality with a spouse or an intimate partner had no effects on the perceived communal coping. One possible reason for this is the personality trait. People who have a more interdependent or communal personality may more easily include others in all aspects of their lives, but they might be more sensitive to their partners' needs (Helgeson et al., 2018). In other words, even if they have a high relationship quality, the person with an interdependent orientation could have concerns about burdening their partner. Subsequently, it prevents them from engaging in communal coping. Also, people who were high in avoidant attachment may benefit less from communal coping since they were less likely to disclose their stressors to their partner (Van Vleet & Helgeson. 2019).

Besides, the network size of the sub-layer network was not related to the perceived communal coping, neither did the relationship quality of the sub-layer network. However, the

relationship quality of the sub-layer network was significantly positively related to the perceived communal coping at the network layer. According to Kahn & Antonucci's convoy theory (1980), individuals place network members in different concentric circles. The innermost circle represents the individual and the next circle represents those who are closest to the individual. The further they are placed in the circles, the less close they are to the individual. Likewise, Lyons et al., (1998) added that members who are closest to the individual may be more likely to be included in the communal coping process. In other words, people who are more satisfied and closer with their network relationships may also enjoy taking challenges together and working as a team when it comes to a stressor (Afifi et al., 2020). However, if a person has lots of people who interact on a weekly basis but lack the quality of those relationships, they might not engage in communal coping either. Hence, the network size is not significantly related to communal coping.

Furthermore, consistent with the H5, the results indicated that community participation was significantly positively correlated with perceived communal coping, which echoed previous studies (Leprince et al., 2018; Richardson & Maninger, 2016; Reynolds et al., 2020). Those studies suggested that a person's participation in a community fosters a sense of belongingness, which in turn, promotes shared appraisal and joint action towards the stressor.

Communal Coping, Resilience and Thriving

H6 made predictions about the associations between perceived communal coping, resilience, and thriving. Resilience includes both negative circumstances and adaptive responses to these circumstances (Spreitzer, 2006). The results suggested that perceived communal coping at the inner-most layer was positively related to resilience, which echoed previous empirical studies (Smith et al., 2018; Zajdel et al., 2018). Similarly, perceived communal coping at the

network layer was significantly positively associated with resilience, which was also matched with previous empirical studies (Richardson & Maninger, 2016; Afifi et al., 2012).

Moreover, perceived communal coping at the network layer (combined sub-layer and outer-layer) was significantly positively related to thriving, which matched with the findings from previous studies (Koehly et al., 2008; Neely et al., 2017). However, perceived communal coping at the inner-most layer was not correlated with thriving. It is possible since not all adaptation processes can result in thriving, where people broaden their perspectives, strengthen their social relationships as a result of a stressful experience. Another possible reason for this is that, in this study, most stressors occurring at the inner-most layer were identified as divorce, break-ups, and bad relationships between parents and children. The type of stressor may buffer them from expanding their social relationships.

Theoretical and Practical Implications

Overall, this study makes some contributions to the current research. Theoretically, this study partially supports the extended theoretical model of communal coping and expands communal coping research in the context of interpersonal to the context of social networks. The findings especially emphasize the importance of community participation on perceived communal coping, the significance of relationship quality of personal network on perceived communal coping, as well as the positive effects of communal coping on resilience and thriving at different social network layers.

Practically, due to the benefits of communal coping that had been examined in this study, communal coping can be implemented into public health messages to increase people's resilience or thriving while facing adversity, especially in the community or organization.

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LIMITATIONS AND FUTURE DIRECTIONS

Although the results of this study are encouraging, the interpretation is constrained by some limitations. First, the sub-layer and outer layer structures loaded on one dimension rather than showing two factors, which indicated that they were all an index of the same latent construct. Therefore, future studies need to distinguish the difference between action and appraisal measures at those two layers.

Second, we should contextualize our results by considering sample and participant characteristics. Namely, due to the characteristics of SONA and MTurk, our samples consist of undergraduate students and people who are proficient in doing surveys. Also, the majority of the sample is White and the sample size is relatively small, which limits the generalizability of the findings. Therefore, future studies may explore communal coping in a more diverse ethnic and large sample.

Moreover, in terms of the research method, this study adopted a cross-sectional survey design, which cannot provide causal relationships among the nature of the stressor, network structures, communal coping, resilience, and thriving. Besides, due to the retrospective characteristics of self-report, participants may not be able to assess themselves accurately. Thus, this study can only measure perceived communal coping rather than actual communal coping.

Fourth, the context of the stressor is too broad. Previous studies mainly focused on a specific and a single context, such as natural disaster (e.g., earthquakes, hurricanes), illness (e.g., type 2 diabetes, chronic illness), and so on. In this study, we asked participants to illustrate a major stressor that was bothering them in the past three months. In this way, the types of stressors were way too much for us to focus on.

APPENDIX

Appendix: Supplementary Material

Measures

Stressor

Please think about one major stressor that you have experienced in the past three months, Use a few words to name the stressor, so later we can refer to it easily.

The major stressors that I have encountered in the past three month is _____, (please write a few words to refer this stressor in the blank box)

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Next, we want to ask you to elaborate in more detail about the stressor that you just put in. For example, you can describe what the stressor is about and how it has impacted you and other people around you.

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Nature of the stressor

1. *Type of the stressor* **(Scheinfeld et al., 2021; Neely et al., 2107; Zajdel et al., 2018)**

   For the major stressor that you have thought about, which category does it belong to? (Please select all that apply)
   o Jobs and work issues
   o Financial and monetary issues
   o Health issues
   o Family and relationship issues
   o School and education issues
   o Social justice issues
   o Other

2. *Perceived severity of the stressor* **(Feng & MacGeorge, 2010)**

   The following statements describe the perceived seriousness of the major stressor that you had in mind. Please indicate the extent to which you agree or disagree with each statement.

	Strongly disagree	Somewhat disagree	Neither agree nor disagree	Somewhat agree	Strongly agree
This was a major problem	○	○	○	○	○
The problem was an important one	○	○	○	○	○
The problem was a significant one	○	○	○	○	○

3. *Controllability* **(Gannon and Pardie, 1989)**

You may have or haven't taken actions to deal with the major stressor you have mentioned. Please indicate which of the following statement best describes your action and/or outcome of that action.
- o I did something or took action which solved the problem
- o I did something or took action which reduced the problem
- o I tried to do something about the problem, but it didn't help
- o I didn't do anything about the problem; nothing would have helped

4. *Chronicity* **(Gannon and Pardie, 1989)**

Please indicate the number of days out of the past 90 days that the major stressor had affected you (i.e., you feel stressful because of the stressor you mentioned.) you may simply put a number of days below, e.g., 30.

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Social network structures

1. *Inner-most layer network* **(Lin et al., 1999; Fletcher et al., 2000)**

1) *The presence of the inner-most layer*

Do you currently have a spouse or an intimate partner? If yes, please write his/her First name and Last initial (i.e., Andy.S). The information about first name and last

initial will only be used to differentiate from other social contact that you report later in the questionnaire. We will not use the name information for any other use.

- o No
- o Yes

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2) *Relationship quality* (**Fletcher et al., 2000**)

For the intimate partner or the souse that you have mentioned in the last question, please indicate

(1) How satisfied you personally feel with the person;
(2) How close are you personally feel;
(3) How intimate are you with the person;
(4) How dependable the person is;
(5) How much do you trust the person

	Not at all	Slightly	Moderately	Very	Extremely
Satisfied	○	○	○	○	○
Close	○	○	○	○	○
Intimate	○	○	○	○	○
Dependable	○	○	○	○	○
Trustworthy	○	○	○	○	○

2. *Sub-layer network* (**Lin et al., 1999; Fletcher et al., 2000**)

1) *Network size*

This question asks you to name *up* to 10 contact in your personal network that you have regular interactions with on a weekly basis. Please exclude your spouse or intimate partner from this list of people that you are going to nominate.

You don't gave to nominate 10 contacts, but that's the maximum number that you can nominate.

Similarly, we are asking you to write their First name and Last initial (i.e., Andy.S). We are not interested in who these people are, but we need the First name and Last initial information to differentiate them as different contacts in your social network.

	First name and Last initial (i.e., Andy.S)
	Names
Contact 1	
Contact 2	
Contact 3	
Contact 4	
Contact 5	
Contact 6	
Contact 7	
Contact 8	
Contact 9	
Contact 10	

2) *Relationship quality* (**Fletcher et al., 2000**)

For the personal network that you mentioned in the previous list, please indicate

(1) How satisfies are you with the person;
(2) How close do you feel with the person;
(3) How intimate are you with the person

You only need to do this for the number of people who you have nominated.

	Satisfied				
	Not at all	Slightly	Moderately	Very	Extremely
Contact 1					
Contact 2					
Contact 3					
Contact 4					
Contact 5					
Contact 6					
Contact 7					
Contact 8					
Contact 9					
Contact 10					

	Close				
	Not at all	Slightly	Moderately	Very	Extremely
Contact 1					
Contact 2					
Contact 3					
Contact 4					
Contact 5					
Contact 6					
Contact 7					
Contact 8					
Contact 9					
Contact 10					

	Intimate				
	Not at all	Slightly	Moderately	Very	Extremely
Contact 1					
Contact 2					
Contact 3					
Contact 4					
Contact 5					
Contact 6					
Contact 7					
Contact 8					
Contact 9					
Contact 10					

3. *Outer-layer network* (**Reynolds et al., 2020**)

Community participation

People may or may not be part of a community group or an organization. Please indicate your level of attendance for a group or an organization.
o   Never
o   Less than once a year
o   A few times a year
o   Once a month
o   Several times a months to one a week
o   Several times a week

Please indicate how often do you do volunteer work for a group or an organization,
- o Never
- o Less than once a year
- o A few times a year
- o Once a month
- o Several times a months to one a week
- o Several times a week

Communal coping (**modified from Afifi et al., 2020**)

1. *Appraisal*

1) *Individual*

For the major stressor that you have mentioned: [the stressor entered by the participant], please indicate to what extent you agree or disagree with the following statements.

	Strongly disagree	Somewhat disagree	Neither agree nor disagree	Somewhat agree	Strongly agree
I feel like I am the only one with the ownership of this major stressor	o	o	o	o	o
This major stressor only influences my life, not anybody else's	o	o	o	o	o
Only I am affected by this major stressor	o	o	o	o	o

2) *Inner-most layer network*

For the major stressor that you have mentioned: [the stressor entered by the participant], we want to understand the extent to which your spouse/intimate partner shared the problem with you.

You have indicate previously that your spouse or your intimate partner is [name entered by the participant].

Please indicate your agreement or disagreement with the following statements involving your spouse/intimate partner.

	Strongly disagree	Somewhat disagree	Neither agree nor disagree	Somewhat agree	Strongly agree
My spouse/partner is affected by this major stressor.	○	○	○	○	○
This major stressor is my and my spouse/partner's problem.	○	○	○	○	○
This major stressor influences the lives of my spouse/partner.	○	○	○	○	○
I feel like I share ownership of this major stressor with my spouse/partner.	○	○	○	○	○

3) *Sub-layer network*

For the major stressor that you have mentioned: [the stressor entered by the participant], we want to understand the extent to which your personal network shares the problem with you.

By personal network, we mean people with who you regularly interact on a weekly basis. Previously, you have nominated these people in your personal network: [*nominee 1, nominee 2, nominee 3, nominee 4, nominee 5, nominee 6, nominee 7, nominee 8, nominee9, nominee 10 if applicable*]

Please indicate you agreement or disagreement with the following statements involving your personal network.

	Strongly disagree	Somewhat disagree	Neither agree nor disagree	Somewhat agree	Strongly agree
My personal network is affected by this major stressor.	○	○	○	○	○
This major stressor is my and my personal network's problem.	○	○	○	○	○
This major stressor influences the lives of other in my personal network.	○	○	○	○	○
I feel like I share ownership of this major stressor with my personal network.	○	○	○	○	○

4) Outer-layer network

For the major stressor that you have mentioned: [the stressor entered by the participant], we want to understand the extent to which your community groups/organizations share the problem with you.

Please indicate your agreement or disagreement with the following statements involving your community groups/organizations.

	Strongly disagree	Somewhat disagree	Neither agree nor disagree	Somewhat agree	Strongly agree
My community group/organization	○	○	○	○	○

is affected by this major stressor.					
This major stressor is my and my community group/organization's problem.	○	○	○	○	○
This major stressor influences the lives of other in my community group/organization.	○	○	○	○	○
I feel like I share ownership of this major stressor with my community group/organization.	○	○	○	○	○

2. Action
1) Individual layer
For the major stressor that you have mentioned: [the stressor entered by the participant], we want to understand to what extent you have done to manage it.

Please indicate your agreement or disagreement with the following statements.

	Strongly disagree	Somewhat disagree	Neither agree nor disagree	Somewhat agree	Strongly agree
I make plans for dealing with this major stressor by myself.	○	○	○	○	○
I depend only on myself to manage this major stressor.	○	○	○	○	○
I do not rely on anyone	○	○	○	○	○

to cope with this major stressor.					
I deal with this major stressor alone.	○	○	○	○	○

2) *Sub-layer network*

For the major stressor that you have mentioned: [the stressor entered by the participant], we want to understand to what extent you and your spouse/partner have done to manage it.

You have indicate previously that your spouse or your intimate partner is [name entered by the participant].

Please indicate your agreement or disagreement with the following statements involving your spouse/partner.

	Strongly disagree	Somewhat disagree	Neither agree nor disagree	Somewhat agree	Strongly agree
My spouse/partner and I have joined together to deal with this major stressor.	○	○	○	○	○
I get support from my spouse/partner to handle this major stressor.	○	○	○	○	○
I depend on my spouse/partner to manage this major stressor.	○	○	○	○	○

3) Sub-layer network

For the major stressor that you have mentioned: [the stressor entered by the participant], we want to understand to what extent you and your personal network have done to manage it.

By personal network, we mean people with who you regularly interact on a weekly basis. Previously, you have nominated these people in your personal network: [*nominee 1, nominee 2, nominee 3, nominee 4, nominee 5, nominee 6, nominee 7, nominee 8, nominee9, nominee 10 if applicable*]

Please indicate you agreement or disagreement with the following statements involving your personal network.

	Strongly disagree	Somewhat disagree	Neither agree nor disagree	Somewhat agree	Strongly agree
My personal network and I have joined together to deal with this major stressor.	○	○	○	○	○
I get support from my personal network to handle this major stressor.	○	○	○	○	○
I depend on my personal network to manage this major stressor.	○	○	○	○	○

4) Outer-layer network

For the major stressor that you have mentioned: [the stressor entered by the participant], we want to understand to what extent you and your community groups/organizations have done to manage it.

Please indicate your agreement or disagreement with the following statements involving your community groups/organizations.

	Strongly disagree	Somewhat disagree	Neither agree nor disagree	Somewhat agree	Strongly agree
My community group/organization and I have joined together to deal with this major stressor.	○	○	○	○	○
I get support from my community group/organization to handle this major stressor.	○	○	○	○	○
I depend on my community group/organization to manage this major stressor.	○	○	○	○	○

Resilience **(modified from Smith et al., 2008)**

The following items ask about your ability in adapting the major stressor you have mentioned: [the stressor entered by the participant].
Please rate the following statements.

	Strongly disagree	Somewhat disagree	Neither agree nor disagree	Somewhat agree	Strongly agree
I could balance work quickly after this major stressor occurred.	○	○	○	○	○
It didn't take me long to recover from this major stressor	○	○	○	○	○
I came through the major stressor with little troubles.	○	○	○	○	○

Thriving **(Afifi et al., 2019)**

Please rate the following statements about your general perception of coping with stress.

	Not true at all	Rarely true	Sometimes true	Often true	True nearly all of the time
I can deal with whatever comes my way	○	○	○	○	○
Coping with stress strengthens me as a person.	○	○	○	○	○
Coping with stress strengthens my family relationships.	○	○	○	○	○

Neuroticism

Please indicate how much you agree or disagree with the following statements.

	Strongly disagree	Somewhat disagree	Neither agree nor disagree	Somewhat agree	Strongly agree
I have frequent mood swings	○	○	○	○	○
I am relaxed most of the time	○	○	○	○	○
I get upset easily	○	○	○	○	○
I seldom feel blue	○	○	○	○	○

Demographic questions

What gender do you identify yourself as?
- o   Male
- o   Female
- o   Non-binary/third gender
- o   Prefer not to say

Please write in the text box below to indicate your age.
(e.g., 30)

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Please specify your ethnicity.
- o White or Caucasian
- o Black or African-American
- o Latino or Hispanic
- o Asian
- o Native American
- o Native Hawaiian or Pacific Islander
- o Other

What is the highest degree or level of education you have completed?
- o Less than high school
- o High school graduate
- o Some college
- o Bachelor's degree
- o Advanced degree

BIBLIOGRAPHY

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Afifi, T. D., Afifi, W. A., Callejas, M. A., Shahnazi, A., White, A., & Nimah, N. (2018). The functionality of communal coping in chronic uncertainty environments: The context of Palestinian refugees in Lebanon. *Health Communication*.

Afifi, T. D., Basinger, E. D., & Kam, J. A. (2020). The extended theoretical model of communal coping: Understanding the properties and functionality of communal coping. *Journal of Communication*, *70*(3), 424-446.

Afifi, T. D., Hutchinson, S., & Krouse, S. (2006). Toward a theoretical model of communal coping in postdivorce families and other naturally occurring groups. *Communication Theory*, *16*(3), 378-409.

Afifi, T., Davis, S., Merrill, A. F., Coveleski, S., Denes, A., & Afifi, W. (2015). In the wake of the great recession: Economic uncertainty, communication, and biological stress responses in families. *Human Communication Research*, *41*(2), 268-302.

Afifi, T., Granger, D., Ersig, A., Tsalikian, E., Shahnazi, A., Davis, S., ... & Scranton, A. (2019). Testing the theory of resilience and relational load (TRRL) in families with type I diabetes. *Health communication*, *34*(10), 1107-1119.

Afifi, T.D., Merrill, A.F., & Davis, S. (2016). The theory of resilience and relational load. *Personal Relationships*, *23*(4), 663-683.

Afifi, W. A., Felix, E. D., & Afifi, T. D. (2012). The impact of uncertainty and communal coping on mental health following natural disasters. *Anxiety, Stress & Coping*, *25*(3), 329-347.

Bagcchi, S. (2020). Stigma during the COVID-19 pandemic. *The Lancet. Infectious Diseases*, *20*(7), 782.

Balgiu, B. A. (2017). Self-esteem, personality and resilience. Study of a student's emerging adults group. *Journal of Educational Sciences and Psychology*, *7*(1).

Campbell-Sills, L., Cohan, S. L., & Stein, M. B. (2006). Relationship of resilience to personality, coping, and psychiatric symptoms in young adults. *Behaviour research and therapy*, *44*(4), 585-599.

Donnellan, M. B., Oswald, F. L., Baird, B. M., & Lucas, R. E. (2006). The mini-IPIP scales: tiny-yet-effective measures of the Big Five factors of personality. *Psychological assessment*, *18*(2), 192.

Feeney, B. C., & Collins, N. L. (2015). A new look at social support: A theoretical perspective on thriving through relationships. *Personality and Social Psychology Review*, *19*(2), 113-147.

Feng, B., & MacGeorge, E. L. (2010). The influences of message and source factors on advice outcomes. *Communication Research*, *37*(4), 553-575.

Fletcher, G. J., Simpson, J. A., & Thomas, G. (2000). The measurement of perceived relationship quality components: A confirmatory factor analytic approach. *Personality and Social Psychology Bulletin*, *26*(3), 340-354.

Folkman, S., & Lazarus, R. S. (1980). An analysis of coping in a middle-aged community sample. *Journal of health and social behavior*, 219-239.

Gannon, L., & Pardie, L. (1989). The importance of chronicity and controllability of stress in the context of stress-illness relationships. *Journal of behavioral medicine*, *12*(4), 357-372.

García, F. E., & Wlodarczyk, A. (2018). Communal coping and rumination in the aftermath of Chile earthquake: Multiple mediation analysis of the relationship between subjective severity and posttraumatic growth. *Journal of Community & Applied Social Psychology*, *28*(4), 191-199.

Górnik-Durose, M. E., & Boroń, K. (2018). Not materialistic, just neurotic. The mediating effect of neuroticism on the relationship between attitudes to material assets and well-being. *Personality and Individual Differences*, *123*, 27-33.

Hanneman, R. A., & Riddle, M. (2005). Introduction to social network methods.

Helgeson, V. S., Jakubiak, B., Seltman, H., Hausmann, L., & Korytkowski, M. (2017). Implicit and explicit communal coping in couples with recently diagnosed type 2 diabetes. *Journal of social and personal relationships*, *34*(7), 1099-1121.

Helgeson, V. S., Jakubiak, B., Van Vleet, M., & Zajdel, M. (2018). Communal coping and adjustment to chronic illness: Theory update and evidence. *Personality and Social Psychology Review*, *22*(2), 170-195.

Hills, P., & Argyle, M. (2002). The Oxford Happiness Questionnaire: a compact scale for the measurement of psychological well-being. *Personality and individual differences*, *33*(7), 1073-1082.

Holloway, S. D., & Machida, S. (1991). Child-rearing effectiveness of divorced mothers: Relationship to coping strategies and social support. *Journal of Divorce & Remarriage*, *14*(3-4), 179-202.

Kam, J. A., Pérez Torres, D., & Steuber Fazio, K. (2018). Identifying individual-and family-level coping strategies as sources of resilience and thriving for undocumented youth of Mexican origin. Journal of Applied Communication Research, 46(5), 641-664.

Kam, J. A., Pines, R., & Bernhold, Q. (2018). Using a theoretical model of communal coping to understand changes in language brokers' coping patterns: Implications for Latina/o early adolescents' brokering stress and efficacy. *Communication Monographs*, *85*(2), 263-283.

Koehly, L. M., Peters, J. A., Kuhn, N., Hoskins, L., Letocha, A., Kenen, R., ... & Greene, M. H. (2008). Sisters in hereditary breast and ovarian cancer families: communal coping, social integration, and psychological well-being. *Psycho-Oncology*, *17*(8), 812-821.

Lawrence, A. R., & Schigelone, A. R. S. (2002). Reciprocity beyond dyadic relationships: Aging-related communal coping. *Research on Aging*, *24*(6), 684-704.

Lazarus, R. S., & Folkman, S. (1984). *Stress, appraisal, and coping*. Springer publishing company.

Lazarus, R. S., & Folkman, S. (1987). Transactional theory and research on emotions and coping. *European Journal of personality*, *1*(3), 141-169.

Lazarus, R. S., & Lazarus, R. S. (1991). *Emotion and adaptation*. Oxford University Press on Demand.

Leprince, C., D'Arripe-Longueville, F., & Doron, J. (2018). Coping in teams: Exploring athletes' communal coping strategies to deal with shared stressors. *Frontiers in psychology*, *9*, 1908.

Lin, N., Ye, X., & Ensel, W. M. (1999). Social support and depressed mood: A structural analysis. *Journal of Health and Social behavior*, 344-359.

Lyons, R. F., Mickelson, K. D., Sullivan, M. J., & Coyne, J. C. (1998). Coping as a communal process. *Journal of Social and Personal Relationships*, *15*(5), 579-605.

Neely, K. C., McHugh, T. L. F., Dunn, J. G., & Holt, N. L. (2017). Athletes and parents coping with deselection in competitive youth sport: A communal coping perspective. *Psychology of Sport and Exercise*, *30*, 1-9.

Neely, K. C., McHugh, T. L. F., Dunn, J. G., & Holt, N. L. (2017). Athletes and parents coping with deselection in competitive youth sport: A communal coping perspective. *Psychology of Sport and Exercise*, *30*, 1-9.

Park, C. L., Russell, B. S., Fendrich, M., Finkelstein-Fox, L., Hutchison, M., & Becker, J. (2020). Americans' COVID-19 stress, coping, and adherence to CDC guidelines. *Journal of general internal medicine*, *35*(8), 2296-2303.

Rentscher, K. E. (2019). Communal coping in couples with health problems. *Frontiers in psychology*, *10*, 398.

Reynolds, R. M., Meng, J., & Dorrance Hall, E. (2020). Multilayered social dynamics and depression among older adults: A 10-year cross-lagged analysis. *Psychology and Aging*, *35*(7), 948.

Richardson, B. K., & Maninger, L. (2016). "We were all in the same boat": An exploratory study of communal coping in disaster recovery. *Southern Communication Journal*, *81*(2), 107-122.

Scheinfeld, E., Gangi, K., Nelson, E. C., & Sinardi, C. C. (2021). Please Scream Inside Your Heart: Compounded Loss and Coping during the COVID-19 Pandemic. *Health Communication*, 1-13.

Sernhede, S. (2020). Apart not alone while we# workfromhome: Tweeters Online Communal Coping with Involuntary Remote Work During COVID-19.

Smith, B. W., Dalen, J., Wiggins, K., Tooley, E., Christopher, P., & Bernard, J. (2008). The brief resilience scale: assessing the ability to bounce back. *International journal of behavioral medicine*, *15*(3), 194-200.

Smith, R. A., Sillars, A., Chesnut, R. P., & Zhu, X. (2018). Investigating married adults' communal coping with genetic health risk and perceived discrimination. *Communication monographs*, *85*(2), 181-202.

Son, C., Hegde, S., Smith, A., Wang, X., & Sasangohar, F. (2020). Effects of COVID-19 on college students' mental health in the United States: Interview survey study. *Journal of medical internet research*, *22*(9), e21279.

Spreitzer, G. M. (2006). Leading to grow and growing to lead:: Leadership development lessons from positive organizational studies. *Organizational Dynamics*, *35*(4), 305-315.

Stanton, R., To, Q. G., Khalesi, S., Williams, S. L., Alley, S. J., Thwaite, T. L., ... & Vandelanotte, C. (2020). Depression, anxiety and stress during COVID-19: associations with changes in physical activity, sleep, tobacco and alcohol use in Australian adults. *International journal of environmental research and public health*, *17*(11), 4065.

Theiss, J. A. (2018). Family communication and resilience. *Journal of Applied Communication Research*, *46*(1), 10-13.

Van Vleet, M., & Helgeson, V. S. (2019). I am a rock; I am an island: Implications of avoidant attachment for communal coping in adults with type 2 diabetes. *Journal of social and personal relationships*, *36*(11-12), 3711-3732.

Zajdel, M., Helgeson, V. S., Seltman, H. J., Korytkowski, M. T., & Hausmann, L. R. (2018). Daily communal coping in couples with type 2 diabetes: links to mood and self-care. *Annals of Behavioral Medicine*, *52*(3), 228-238.