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Communal Coping and Adjustment to Chronic Illness: Theory Update and Evidence

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Abstract

We present a theory of communal coping that describes an optimal pathway to patient adjustment among couples in which one person faces a chronic illness. Communal coping consists of a shared illness appraisal (i.e., person perceives illness as a joint rather than individual problem) and collaboration with a partner to manage the illness. We present a model of the communal coping process that links patient and partner shared illness appraisals to collaboration and a set of supportive interactions that might be reframed as collaboration in the presence of shared illness appraisals. We then outline a model that identifies potential antecedents of communal coping and mechanisms that link communal coping to patient illness adjustment (i.e., enhanced psychological well-being, improved health behaviors, better physical health) and partner psychological well-being. We review the empirical evidence for this model and conclude by identifying several moderator variables, noting potential limitations, and outlining future research directions.

Keywords

close relationships, health, well-being

> "I think we're eating very healthy. We both eat the same thing all the time. We get our share of exercise in. We both go to the gym. We're doing all the necessary things we have to do. We do act as one so we're working on this together."

These are the remarks of a spouse of a person who was newly diagnosed with type 2 diabetes when we asked how they are coping with the problem. Contrast that with another spouse who says,

> "You know she should probably take a little better care of herself, but, for the most part, she has it under control. I eat a lot of greasy foods and fried foods and I order out a lot. Not to entice her or anything, but that's just the nature of my habits and things I like to do. And sometimes I should be a little more considerate of her, but she's a pretty strong woman so it doesn't affect her too much. It's her problem so she has to learn to deal with it."

In the first scenario, the spouse clearly views diabetes as a joint problem and states that the two of them work together or collaborate to manage diabetes. We refer to this communal or shared illness appraisal and collaboration as communal coping—a way of responding to chronic illness that is not evident in the second scenario. Communal coping was originally defined by Lyons, Mickelson, Sullivan, and Coyne (1998) as occurring when "one or more individuals perceive a stressor as 'our' problem (a social appraisal) vs. 'my' or 'your' problem (an individualistic appraisal), and activate a process of shared or collaborative coping" (p. 583). Thus, communal coping includes both the appraisal that the illness is shared and subsequent collaboration. This is the definition of communal coping that we adopt and elaborate on in the present article.

Communal coping is a unique theoretical perspective on coping. Although there is extensive research on how individuals cope with stress, the vast majority of that research focuses on individual coping responses. Coping strategies have been divided into problem-focused versus emotion-focused (e.g., whether one attempts to alter the problem or alter one's emotional reactions to the problem; Lazarus & Folkman, 1984) and approach versus avoidant (e.g., orientation toward or away from the threat; Roth & Cohen, 1986). Within both of these theoretical frameworks, however, coping strategies have traditionally taken the perspective of one individual. It is increasingly recognized that individuals cope in a social context: Stressors not only affect the individual but also their social network, and the social network influences how the

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individual copes with the stressor. Although relatively new to adult coping, this idea has been understood for a long time in the pediatric literature in the context of family systems theory (Cohen, 1999; Patterson & Garwick, 1998). Family systems theory states that (a) an event that occurs to one family member affects other family members and (b) their responses in turn affect the target family member. That is, not only does the family affect how one responds to a health threat, but the health threat affects family interactions as well. In other words, family systems theory assumes that behavior takes place in an interpersonal context. This interpersonal framework is consistent with the communal coping model of adjustment to chronic illness that we present here.

Among couples in which one person has a chronic illness, coping is likely to be interpersonal in nature. That is, the illness can affect both members of the couple, and both members of the couple can be involved in managing the illness. Other researchers in this area have echoed this point. Baider and Kaplan De-Nour (1988) argue that in the context of chronic illness, the health care system may "describe the patient as the person who has the illness, but psychologically it is not the individual, rather the unit, that goes through the illness" (p. 168). In their work, they found that one couple member's psychological and physical adjustment to disease influences the other couple member over time. Similarly, Rolland (1994) notes that the assumption is often that an illness is the patient's problem, but that "optimal functioning depends largely on the willingness of both partners to challenge these fundamental assumptions" (p. 331). When an illness is defined as only one person's problem, the interactions between couple members may be imbalanced; there will be issues related to power and control, guilt, and a loss of intimacy (Rolland, 1994). Theory and research on communal coping is one answer to the call for increased attention to patients' broader social environments, and it may provide an opportunity to enhance adjustment to chronic illness.

In this article, we describe and elaborate on the construct of communal coping by clarifying the two components (shared illness appraisal and collaboration) and by describing the process by which communal coping unfolds to enhance adjustment outcomes. When two individuals—most likely spouses or romantic partners in adulthood—appraise chronic illness in one couple member as a threat, we argue that they may cope communally with this stressor and jointly experience better psychological well-being while the patient sustains improved health behaviors and better physical health. There are other dyads besides romantic couples that one may study in the context of chronic illness, which we elaborate on later, but here we focus on romantic partners because they are among the most important resources during times of stress (Shaver & Hazan, 1993) and often have the greatest opportunities for communal coping.

Although Lyons et al. (1998) put forth the idea of communal coping nearly 20 years ago, little empirical research has examined the construct of communal coping. Research has typically focused on constructs relevant to the shared appraisal aspect of communal coping (e.g., Rohrbaugh, Mehl, Shoham, Reilly, & Ewy, 2008; Rohrbaugh, Shoham, Skoyen, Jensen, & Mehl, 2012) or constructs that overlap with the collaborative component of communal coping (e.g., Berg, Schindler, & Maharajh, 2008; Bodenmann, 2005; Coyne & Smith, 1991, 1994), but researchers have not integrated the two and described how they are related. Although both shared illness appraisal and collaboration might individually be beneficial for adjustment to chronic illness, we argue that the combination of the two should optimize illness adjustment because the two components interact synergistically. *Thus, one key contribution of the current article is to describe the process of communal coping.* Specifically, we describe how shared appraisal elicits mutual effort toward disease management and how shared appraisal can provide a lens through which support provision and receipt is viewed as collaboration. These processes of communal coping (described further in the section titled "The Communal Coping Process") are new advancements to the conceptualization of communal coping and provide an important update to the theory. No other theories of interpersonal coping emphasize the importance of shared illness appraisals in concert with collaboration; therefore, the current work provides a testable theoretical proposition that may allow researchers and practitioners to optimize adjustment to chronic illness.

A second key contribution of this work is the provision of a model of communal coping that includes antecedents of communal coping as well as mechanisms that explain links of communal coping to good chronic illness adjustment. Whereas some components of this mechanistic model have been investigated by prior research, other components require additional attention. We provide the model in part as a way to synthesize previous research but also as an impetus to stimulate future work in this area. It is our intention to provide a model with testable hypotheses and to offer a framework that inspires future research that will confirm, refute, or modify the theoretical model as we have outlined it.

A third key contribution of this work is a focus on methodology. We identify a need for innovation in the measurement of communal coping and its two components, shared appraisal and collaboration. Although several researchers have measured constructs related to shared appraisal or collaboration in their interpersonal models of coping, the measurement of these constructs has been limited in several ways (see Table 1 for a description of these measures). For example, there are several constructs that are often thought to be similar to our definition of collaboration, but are actually quite distinct when the specific measures are examined. These include Coyne and Smith's (1991, 1994) construct of active engagement, Bodenmann's (2005) construct of common dyadic coping, and Berg, Wiebe et al.'s (2008) measure of collaborative coping. Some measures include other ways of relating to one another that we would not define as collaboration (e.g., relaxing, general affectionate behavior; Bodenmann, 2005). In

Table 1. Measurement Strategies of Communal Coping-Related Constructs.

Measures That Tap Collaboration

1. Active engagement

Definition: "Involving the partner in discussions, inquiring how the partner feels, and other constructive problem-solving" (Coyne & Smith, 1991, p. 405)

Five-item measure: (Coyne et al., 1990, modified by Hagedoorn et al., 2000)
My partner tries to discuss it with me openly
My partner asks me how I feel
When something bothers me, my partner tries to discuss the problem
My partner is full of understanding toward me.
My partner makes me feel that I'm not alone in this.

2. Common dyadic coping

Definition: "Both partners participate in the coping process more or less symmetrically or complementarily in order to handle a problem-focused or emotion-focused issue relevant to the dyad by using strategies such as joint problem solving, joint information seeking, sharing of feelings, mutual commitment, or relaxing together" (Bodenmann, 2005, p. 38)

Five-item measure:
We try to cope with the problem together and search for ascertained solutions
We engage in a serious discussion about the problem and think through what has to be done
We help one another to put the problem in perspective and see it in a new light
We help each other relax with such things like massage, taking a bath together, or listening to music together
We are affectionate with each other, make love and try that way to cope with stress

3. Collaborative strategies

Definition: Strategies in which "spouses were perceived to be actively involved as collaborators, by taking equal responsibility for action, brainstorming, and negotiating" (Berg et al., 2008, p. 506)

Single-item measure:
With respect to a daily stressor, asked whether spouse was

(a) not involved	*uninvolvement*
(b) supportive (gave advice, listened)	*support*
(c) took charge (i.e., was too involved, controlling)	*overprotective*
(d) worked together (i.e., worked as a team, negotiated)	*collaboration*

Measures That Tap Shared Illness Appraisal

1. We-language (Rohrbaugh, Mehl, Shoham, Reilly, & Ewy, 2008)

Definition and operationalization:

Percentage of words or percentage of pronouns that are first person plural (we, us, our) in the context of an illness discussion with partner

2. Appraisal of responsibility (Stephens et al., 2013)

Definition and measure:

Couple brought together to reach an agreement as to how they viewed diabetes management as a couple: (a) patient's problem to manage, (b) patient's problem to manage but something that affects both of them, (c) their problem to manage as a team; choice "c" is coded as shared responsibility

fact, some of these interpersonal coping constructs may reflect general relationship harmony or general supportiveness rather than the specific way of coping with the illness that we identify in the construct of collaboration.

There also are limitations in the ways that researchers have measured the shared appraisal aspect of communal coping (see Table 1). The vast majority of research on shared illness appraisal infers the construct from linguistic markers of "we-language" in the context of illness discussions. However, it is not certain that the specific instances of "we-language" are tied to the illness (e.g., "We should start exercising together") or are tied to something else (e.g., "We are finished with this discussion"). That is, the measurement of we-language—though in the context of illness-related discussions—is devoid of specific references to the illness. In another case, a set of researchers examined shared illness appraisal with specific reference to the chronic illness, but they asked couple members to come to an agreement as to whether the illness was shared or not (Stephens et al., 2013)—a methodology that is likely to inflate reports of shared illness appraisal. In this revised conceptualization of communal coping, we present measures that more directly measure both the shared appraisal and collaborative components of communal coping in an effort to improve measurement and ensure that it is communal coping and not another characteristic of the relationship that promotes adjustment.

A final key contribution of this work is a model that can inform interventions. Because the current model explains the process by which communal coping unfolds, we aim for this model to inform interventions that induce communal coping. Our theory of communal coping can be translated directly to a focused intervention that should benefit both patients and partners. Other theories lead to interventions that may foster a range of positive interpersonal exchanges (e.g., Bodenmann & Shantinath, 2004; Martire, Schulz, Keefe, Rudy, & Starz, 2008), but not to the specific communal coping intervention that would emerge from this model.

One way in which our model of communal coping differs from other interpersonal theories is that we are describing a joint process that is directed toward the benefit of one person, consistent with the initial conceptualization of communal coping (Lyons et al., 1998). This is not a relationship-enhancement theory that is directed at the couple. Instead, the relationship is being used to enhance the well-being of one couple member. In our theoretical framework, we underscore and concur with a point that Lyons et al. (1998) raised in defining communal coping. They noted that they used the term *communal* coping rather than *collective* coping because the goal is not collectivist. The *primary* goal is not to enhance the welfare of the group (or the dyad). The goal is to enhance patient adjustment to chronic illness—even though benefits may accrue to both patient and partner. We argue that both patients and partners benefit from communal coping, but that the primary goal for both patients and partners is the health of the patient.

In this article, we present a model of communal coping in the context of adjustment to chronic illness because chronic illness is a pervasive stressor, and it is a stressor that is directed at one person rather than the couple (e.g., relationship difficulties). Chronic illness also is a stressor for which a large literature exists. However, we argue at the end of this article that our model might apply to other major stressors that are directed toward one person, such as unemployment. This is clearly an avenue for future research.

This article is organized into several sections. First, we describe the communal coping process, providing an update and extension of Lyons and colleagues' (1998) original conception of communal coping. Next, we present a model of communal coping by identifying potential antecedent variables and outlining a set of processes by which communal coping may lead to enhanced psychological well-being for both patients and partners and to optimal health behavior and physical health for patients. We then evaluate the empirical evidence for our model linking communal coping to positive illness adjustment which includes a description of the instruments we have developed to measure communal coping. Finally, we discuss potential moderators of the relation of communal coping to adjustment to chronic illness as well as some limitations of the communal coping framework. We conclude by outlining suggestions for future research.

The Communal Coping Process

We define communal coping as the combination of the appraisal of the illness as shared and collaboration to manage the illness and its demands, consistent with Lyons and colleagues' (1998) original formulation. *A shared illness appraisal is one individual's perception that the responsibility to manage the illness is joint or shared—that is, it is "our problem" rather than "my problem" or "his/her problem."* Couple members may come to understand one another's illness appraisals through day-to-day communication about the illness. Individuals who have shared illness appraisals are likely to communicate more about the illness to their partner (Lyons et al., 1998), leading couple members to share knowledge, learn about the illness together, and have shared expectations for illness management. When patients and partners communicate more openly and regularly about the illness, partners are more likely to understand patients' needs, and patients and partners are more likely to collaborate effectively to manage the illness.

Collaboration reflects joint input, mutual effort, and a team approach to successfully manage a problem (Berg, Wiebe et al., 2008; Berg, Schindler, Smith, Skinner, & Beveridge, 2011). In the case of chronic illness, the problem is illness management. There are a variety of ways in which couple members can collaborate, including discussing how to manage the illness; combining efforts, skills, and knowledge to engage in joint problem-solving; and negotiating responsibilities (Berg, Wiebe, et al., 2008; Hoppmann & Gerstorf, 2013). All these strategies ultimately reflect joint efforts to address the problem. In other words, when couple members collaborate, their roles as patients and partners are de-emphasized, and they are both involved in problem-solving. Even though only one person has the illness, they become mutual partners working together to address and adapt to the demands of the illness. Collaboration involves a pooling of resources, as both couple members contribute to coping efforts. Of course, couple members may not contribute equally to coping efforts or may not share all coping responsibilities, depending on the nature of the illness and its demands. That is, roles as patient and partner are de-emphasized but not eliminated. Common examples of collaboration in the context of type 2 diabetes include preparing healthy meals, exercising, or attending doctor's appointments together. Collaboration also includes supportive interactions

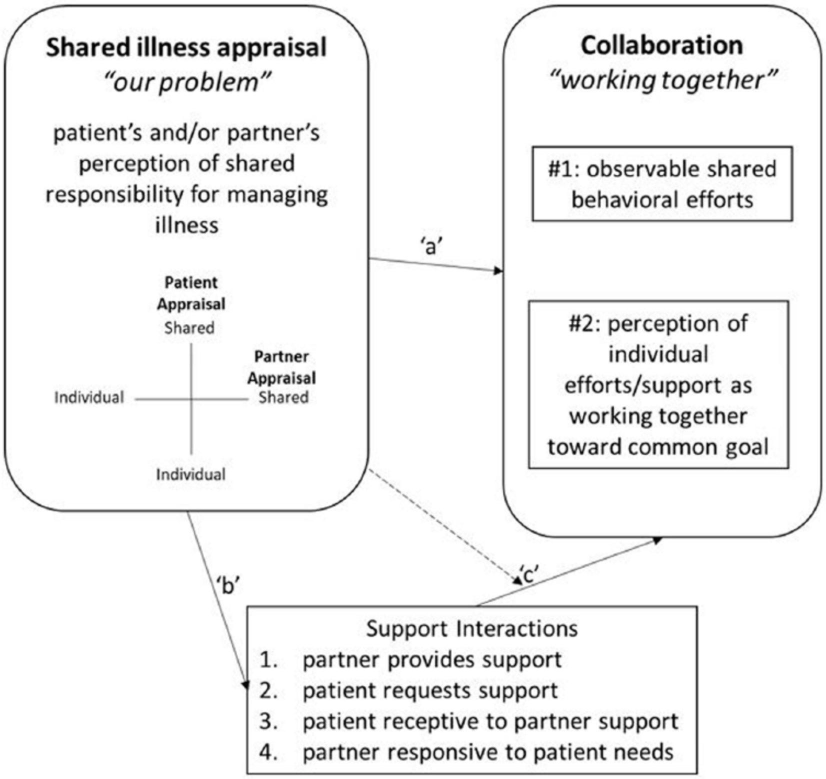

Figure 1. The communal coping process.

between couple members that are recast as collaboration—a point we elaborate on later in this section.

Path "a"

As shown in Figure 1, we argue that shared illness appraisals lead to collaboration because patients and partners who view the illness as "our problem" should be motivated to work together to manage the problem (path "a"). Communication (both about one's desire to work together and about the illness) facilitates collaboration. Couple members need to understand one another's expectations regarding mutual involvement. Partners have to understand patient needs, and patients need to be able to articulate their needs and know that partners will be receptive to their needs for collaboration to occur.

As shown in the first box of Figure 1, we recognize that illness appraisals lie on a continuum ranging from the perception that an illness is "completely an individual responsibility" to "completely a shared responsibility." Research on shared illness appraisal, which we later review, has almost exclusively assessed patient's and partners' illness appraisals at the individual level. This is for good reason, as patients and partners do not always agree on whether an illness is shared. Patient and partner illness appraisals are correlated, but these correlations are often modest in size (Rentscher, Soriano, Rohrbaugh, Shoham, & Mehl, 2017; Rohrbaugh et al., 2012; Zajdel, Helgeson, Seltman, Korytkowski, & Hausmann, 2016). In fact, partners are more likely than patients to perceive an illness to be shared (Helgeson, Van Vleet, Kelly, Korytkowski, & Berg, 2017; Rentscher et al., 2017) for reasons which we discuss later. A lack of congruence, however, does not mean that one person is likely to have a completely individual appraisal and the other person is likely to have a completely shared illness appraisal. Thus, incongruence is likely to be a matter of degree rather than opposites. We speculate later in the article on illness appraisal congruence as a moderator variable affecting the relation of communal coping to adjustment outcomes.

Either the patient's or the partner's perception of shared responsibility for managing the illness may have benefits; however, we expect the most optimal outcomes to occur when patient and partner both hold greater shared illness appraisals. In Lyons and colleagues' (1998) original theory, they state that at least one person has to have a shared appraisal for benefits to occur. If at least one person holds a shared illness appraisal, collaboration is more likely to occur. In other words, we propose that shared illness appraisal on the part of either patient or partner will lead to collaboration (path "a"), but that path "a" will be strongest when both patients and partners adopt shared illness appraisals.

To the extent that patient and partner do not have congruent illness appraisals (one views the illness as more of a shared problem than the other), we argue that partner shared illness appraisal is more critical than patient shared illness appraisal for collaboration to occur. If partners do not appraise the illness as shared and patients do, partners are less likely to be involved in illness management. If partners appraise the illness as shared and patients do not, partners will still be involved. In this case, partner behavior could be viewed by patients as overprotective or intrusive, but partner overinvolvement has been shown to have some benefits and to be less problematic than partner underinvolvement (Helgeson, in press). We discuss this issue in more depth when we discuss patient/partner congruence as a moderator variable.

We have some experimental evidence that shared appraisal leads to collaboration, but not in the context of chronic illness. In a study of dating couples, we manipulated the shared appraisal element of communal coping in the context of one person facing a stressor—specifically having to give a speech (Helgeson, Hochstedler, & Essien, 2016). We led couples to perceive one person's speech stressor as either shared (i.e., "this is the responsibility of both you and your partner") or individual ("this is your responsibility"). To strengthen the manipulation, these instructions were followed by a questionnaire in which participants were asked to complete 10 statements about their relationship that began with "we" in the shared appraisal condition, and five statements that began with "I" and five statements that began with "My partner" in the individual appraisal condition. We provided the person giving the speech with 8 min to prepare, during which the partner was present. We videotaped this preparation period and measured participants' blood pressure and heart rate throughout the experiment. Results showed that both partners assigned to the shared appraisal condition compared with the individual appraisal condition reported greater collaboration during the speech preparation period. In addition, independent raters observed greater exchanges of support in the shared appraisal than the individual appraisal condition. Finally, participants in the shared appraisal condition showed less physiological reactivity to the stressor and greater recovery following the stressor.

Path "b"

Shared illness appraisals may not only lead to collaboration but also to the support interactions depicted in Figure 1 (path "b"). When partners hold a shared appraisal of the problem, they are more likely to offer support to patients (e.g., encouragement, reminders) because they recognize that they are involved in illness management. When patients hold a shared illness appraisal, they are more willing to request support (and more comfortable doing so) from partners because they view illness management as a shared responsibility. It is also the case that when patients have a shared illness appraisal, they are more likely to be receptive to support that is offered by partners because they expect their partner to be involved and perceive support as "working together" toward a common goal. In addition, when partners have a shared illness appraisal, partners are more likely to be responsive to patients' requests for support. Thus, shared illness appraisal on the part of both patients and partners should lead to mutual responsiveness to needs.

To understand the connection of shared illness appraisal to support, it is essential that we communicate how we are defining support interactions. In the seminal book, *Social Support and Health*, edited by Cohen and Syme (1985), social support is defined as "the resources provided by other persons" (p. 4) and is delineated into specific functions—esteem, instrumental, informational, and companionship (Wills, 1985). This book laid the foundation for decades of research on social support. Because our theory of communal coping is situated in the context of health (i.e., one person's chronic illness), this is the definition of social support that we adopt here. Traditional social support reflects one person providing resources (i.e., emotional, informational, instrumental) to assist a second person with his or her problem. Common examples of support in the context of type 2 diabetes are the partner providing reassurance or encouragement to alleviate the patient's worries, advice on how to meet exercise goals, and concrete assistance by driving the patient to physician appointments.

Path "c"

Critical to our current perspective is the nature of support interactions in the context of shared illness appraisals. We argue that in the context of shared illness appraisals, these support interactions may come to be defined as collaboration (Figure 1, path "c"). We argue that a shared illness appraisal provides a lens through which support interactions are more likely to be viewed as collaboration or team effort toward resolving the problem rather than one-sided support provision. Shared illness appraisals not only make the support interactions shown in Figure 1 more likely to occur, but shared appraisals may *allow one to reinterpret support interactions as collaboration*. Although couples are unlikely to differentiate the terms *support* and *collaboration*, we believe that couples do readily distinguish whether they are working together to address illness demands or whether one person is helping the other person with his or her illness-related responsibilities. Thus, in the context of shared illness appraisal, support interactions may become viewed as collaboration, which is why we show a dashed arrow from shared illness appraisal to the link between support and collaboration (Figure 1, path "c").

Thus, in Figure 1, our definition of collaboration includes both observable joint behavioral efforts toward disease management (#1 collaboration) as well as individual contributions to disease management that are perceived as working together (#2 collaboration). For example, when a couple prepares a healthy meal together or exercises together, it is likely to be classified as collaboration by the couple as well as outside observers (#1 collaboration). However, we recognize that interactions in which one person provides support to another (i.e., Marie cooks a healthy meal for John, who has diabetes) or one person requests support from another (i.e., John asks Marie to accompany him to the doctor) can also be interpreted as collaboration when this exchange occurs in the context of shared illness appraisal (#2 collaboration). We argue that shared illness appraisal drives an interpretation that support is collaborative in nature rather than one-sided because couple members perceive that they are both responsible for managing the illness. In the context of shared illness appraisal, John is likely to interpret Marie's preparation of dinner as collaboration; that is, they are working together on a healthy diet, each person doing his or her share. In the absence of shared illness appraisal—when managing the illness is appraised as the patient's problem—Marie and John are likely to interpret John's efforts in cooking a healthy meal as support but not necessarily collaboration.

The distinction between social support (one-sided helping) and collaboration (support in the context of shared appraisal that is perceived as working together) may seem pedantic, but there are reasons to expect that collaboration may be more beneficial than social support without shared appraisals. There is a large literature on social support linking it to good relationship and health outcomes (see Thoits, 2011; Uchino, 2009; Wills & Ainette, 2012, for reviews), but there is also a substantial literature on miscarried helping that shows support efforts may fail, may not always be perceived as intended, may not be welcomed, and/or may undermine self-efficacy. Individuals are not always receptive to support they receive because support can feel intrusive, create feelings of indebtedness or an uncomfortable power dynamic, and undermine self-efficacy (e.g., Bolger & Amarel, 2007; McClure, Xu, Craw, Lane, Bolger, & Shrout, 2013; Rafaeli & Gleason, 2009; Vangelisti, 2009). Thus, there are costs to receiving support (e.g., Maisel & Gable, 2009; Uchino, 2009). When the patient perceives that the illness is a joint problem and construes partner assistance as "working together," these problems should be less likely to occur. Collaboration should circumvent the costs associated with social support because patients with shared illness appraisal expect their partners to be involved and take on illness-related responsibilities.

Thus, a shared illness appraisal that transforms social support into collaboration makes it more likely that a partner's efforts will be perceived in a positive light. For example, partners may remind patients to take their medication. The assistance may be welcomed by the patient, may be rejected by the patient, may be ignored by the patient, or may even be perceived as intrusive and threatening to autonomy by the patient (Stephens et al., 2009). However, in the context of shared illness appraisal, the patient is more likely to interpret the reminder to take medication as working together toward a common goal.

Another reason that shared illness appraisals may lead to the optimization of support outcomes is that shared appraisals may lead to invisible support, support that avoids feelings of inferiority or indebtedness because it "de-emphasizes the roles of support recipient and provider" and is more "equal and conversation-like" (Howland & Simpson, 2010, p. 1881). In the context of shared appraisals, partners perceive that they are actively involved in disease management and the distinct roles of patient and partner become blurred. Some research shows that support provision that is not recognized by persons or is conveyed in a subtler or indirect way is more beneficial than recognized or more overt support efforts (Bolger, Zuckerman, & Kessler, 2000; Shrout, Herman, & Bolger, 2006). Studies have shown that subtler or indirect forms of care have predicted better outcomes in the contexts of couples' discussion of goals (Girme, Overall, & Simpson, 2013) and students' participation in a laboratory stressor (Bolger & Amarel, 2007). Patients with shared illness appraisals may not consider, notice, or interpret spouse assistance as support provision and can therefore avoid the costs of receiving support. Considering the previous example of meal preparation, if patients and partners perceive diabetes to be a joint problem and have developed a collaborative plan to address the problem which entails the spouse cooking healthy meals, the patient may not acknowledge this situation as assistance or support received and the spouse may not perceive the situation as support provision because it is part of joint coping efforts.

Although there is no direct evidence that support is viewed as collaboration in the context of shared illness appraisal,[1] there is some evidence that shared illness appraisal optimizes the outcomes of support interactions. Stephens et al. (2013) showed that a shared illness appraisal moderated the relation of support to outcomes in their study of couples in which one person had type 2 diabetes. That is, diet-related support was related to decreases in diabetes-related distress when illness responsibility was appraised as shared but was unrelated to diabetes-related distress when illness responsibility was not shared. Similarly, in our study of adult couples in which one person had type 1 diabetes, illness appraisal moderated the relation of support to a number of outcomes (Helgeson et al., 2017). For example, spouse emotional support was more strongly related to good patient self-care behavior in the context of the patient's shared rather than individual illness appraisal.

There is also research that shows collaboration is more beneficial in the context of shared illness appraisal. In a study of adolescents with type 1 diabetes, collaboration between parent and child was related to more effective teen coping for those who held a shared illness appraisal (viewed diabetes as shared between teen and parent) but less effective coping for those who held an individual appraisal (viewed diabetes as belonging only to teen; Berg et al., 2009).

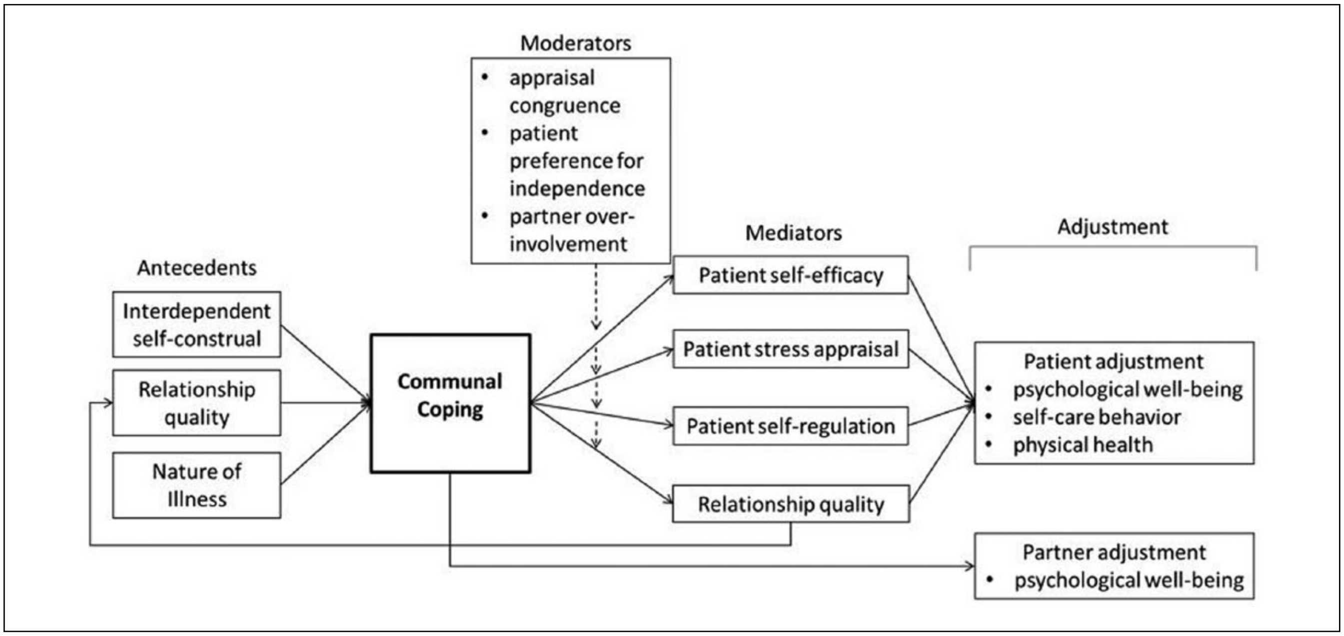

Figure 2. Model of the process by which communal coping leads to optimal adjustment to chronic illness.

Based on this past research and available data, the current model shown in Figure 1 includes path "b" from shared illness appraisal to support because we believe that a shared illness appraisal is likely to lead to supportive interactions. However, the model also shows path "c" from shared appraisal to the path from support to collaboration to depict the idea that support is more beneficial in the context of shared appraisals because it is interpreted as collaborative.

In sum, we have described the process by which communal coping may unfold, how the two components of communal coping—shared illness appraisal and collaboration—are related, and the relevance of social support to this process. As noted earlier in this section, collaboration is most likely to occur to the extent that both patients and partners hold greater shared illness appraisals. In the next section, we provide a model of how communal coping might be linked to optimal illness adjustment, which is then followed by an evaluation of the empirical literature.

Model of Communal Coping and Adjustment to Chronic Illness

Now that we have outlined the communal coping process, we present a conceptual model in Figure 2 that identifies potential antecedents to communal coping and potential mechanisms (mediators) that may account for the relation of communal coping to optimal adjustment to chronic illness. This theoretical model is partly speculative in our attempt to enhance research in this area but also grounded in existing research as demonstrated in the next section on model evidence. The communal coping box in Figure 2 represents the process described in Figure 1. As discussed previously (and as depicted in Figure 1), we view communal coping as lying on a continuum. Thus, all pathways in Figure 2 represent a matter of degree. That is, to the extent that couple members cope communally, specified outcomes should result.

Figure 2 shows that communal coping is associated with enhanced patient psychological well-being (e.g., enhanced life satisfaction, less depressive symptoms, reduced anxiety), increased patient self-care behavior (sometimes referred to as adherence in the chronic illness literature), and improved patient physical health. We place all three domains of adjustment in the same box, but note that they are likely to be interrelated as psychological well-being is likely to influence self-care behavior, self-care behavior is likely to influence psychological well-being, and both are likely to affect physical health. We also show in Figure 2 that communal coping is linked to enhanced partner psychological well-being. Although communal coping is primarily focused on patient outcomes, past research has demonstrated psychological health benefits for partners as well. Thus, we hypothesize that communal coping will lead to positive adjustment in patients and partners.

Antecedents

We identify three potential antecedents to communal coping. We refer to them as "potential" because little research has examined this issue. These antecedents are interdependent self-construals, relationship quality, and nature of illness.

One might expect that people who respond to a stressor such as a chronic illness by interpreting the stressor as shared and engaging in collaboration are likely to be people who have more *interdependent self-construals*. Someone with an interdependent self-construal defines the self in terms of his or her relationships with others (Cross & Madson, 1997). People who have a more interdependent or communal personality orientation may more easily include others in all aspects of their lives and therefore may engage in communal coping to a greater degree in the context of adversity. However, there are reasons to suggest that this may not be the case from the perspective of the patient. Because people with interdependent orientations might be more sensitive to their partners' needs, patients with an interdependent orientation could have concerns about burdening their partner that might prevent them from engaging in communal coping. Thus, we suggest that there is potential for greater overlap between interdependence as a personality trait and communal coping among partners than patients.

A second antecedent variable to communal coping is likely to be *relationship quality*. One would expect that couples who are closer would be more likely to construe a partner's stressor as his or her own and to work collaboratively with that partner to manage the stressor. Couples who are more satisfied with their relationship may also enjoy taking on challenges together and working as a team when it comes to illness management and problem-solving. Such couples may feel that this is one way in which they can grow closer together and demonstrate caring and love for each other.

Third, we suggest that the *nature of the illness* will influence the degree of communal coping. Research has not compared communal coping across chronic diseases, but we suggest that greater communal coping will occur in the context of a chronic illness in which management strategies are more amenable to partner involvement. For example, the illness management strategies of type 2 diabetes focus on changes in diet, exercise, and medication adherence, whereas the illness management strategies for low back pain focus on medication and avoidance of movements that trigger low back pain. It would be easier for partners to become involved in the former situation (i.e., diet and general exercise) than the latter situation (i.e., exercises that target low back). Greater communal coping also may be observed when both patients and partners can benefit from the illness management strategies, which is more likely to be the case with type 2 diabetes than low back pain.

Mediators/Mechanisms

We propose that communal coping will have four complementary effects, as shown by the mediators in Figure 2, which will then positively affect patient adjustment.

First, patients will feel an *enhanced sense of control or self-efficacy* to handle the demands of the chronic illness because of shared illness appraisal and collaboration. Whereas support can undermine self-efficacy when patients infer that support-receipt communicates a perceived lack of competence (e.g., Bolger et al., 2000), partner support in a communal coping context should not undermine self-efficacy. In the context of communal coping, support is perceived as mutual collaboration or joint effort toward a joint goal. The support also may be less likely to undermine self-efficacy because it is less direct and possibly even invisible (i.e., not interpreted as support but as collaboration). In addition, partner support attempts may be more responsive to patients' needs because a shared illness appraisal leads patients to communicate their needs to their partners. In other words, we argue that support and collaboration should not threaten self-efficacy because of shared illness appraisals. Indeed, shared illness appraisal and collaboration should lead to an enhanced sense of self-efficacy by making it easier for patients to manage their illness, which likely includes lifestyle changes. In addition, when couples view the illness as a joint problem, patients will have fewer obstacles from the partner to implement these new lifestyle changes.

Second, patients will *appraise the illness as less stressful* because they have more resources to address the stressor; that is, the partner is a coping resource. An event is appraised as stressful when one's resources do not meet the demands of the environment (Lazarus & Folkman, 1984). Communal coping should serve to reduce the negativity of stressor appraisals that result from the illness, both through the primary and secondary appraisals outlined by Lazarus and Folkman (1984; Lakey & Cohen, 2000). The joint appraisal of the illness as shared may reduce how threatening stressors appear (primary appraisal), and collaboration should provide the individual with enough resources to meet the demands of the stressor (secondary appraisal).

Third, communal coping may enhance adjustment outcomes by *enhancing self-regulatory resources*. According to self-regulation theory, the capacity to regulate the self is a limited resource that can be depleted (Baumeister & Heatherton, 1996; Muraven & Baumeister, 2000). Shared illness appraisal and collaboration can increase self-regulation by enhancing resources and preventing depletion. These expanded resources should enhance problem-solving efforts (Lyons et al., 1998), and, in fact, communal coping has been linked to greater progress in resolving diabetes-related problems (Van Vleet & Helgeson, 2016). Depletion of resources has been linked to a number of problems; in the context of health, it has been linked to overeating among those on a diet (Vohs & Heatherton, 2000). Thus, it is likely that in the context of individually coping with a stressor such as a chronic illness, self-regulatory resources will be taxed and self-regulatory failures in terms of poor self-care behavior will occur. By increasing self-regulatory resources, communal coping should facilitate psychological, behavioral, and physical health.

Fourth, shared illness appraisal and collaboration should lead to *enhanced relationship quality*. Communal coping should enhance relationship closeness and improve relationship quality broadly (e.g., satisfaction, commitment), as it demonstrates responsiveness, indicates investment in the relationship, and helps to maintain the relationship (Mickelson, Lyons, Sullivan, Coyne, & Sarason, 2001; Reis, Clark, & Holmes, 2004). Couples who engage in communal coping realize that the current stressor is one of many stressors that they may face in the future, and that each of these stressors can be shared. Successfully handling illness-related issues together should also make the couple feel like they work well as a team and bring partners closer together. Thus, communal coping should enhance patient and partner adjustment outcomes by enhancing relationship quality.

We recognize that these four mechanisms are not independent of one another. For example, enhanced self-efficacy is likely to reduce stress appraisals, a reduced stress appraisal is likely to enhance self-efficacy as well as increase self-regulation, so these mechanisms may perpetuate one another. We also recognize that there may be other mechanisms that explain the relation of communal coping to adjustment, but these four are ones for which we can make strong conceptual claims and ones that are the subject of much research in social and health psychology.

As depicted in the right side of Figure 2, we expect that all four of these pathways—enhanced self-efficacy, reduced stress appraisal, increased self-regulatory resources, and improved relationship quality—are likely to lead to patient psychological well-being, to promote positive patient health behaviors relevant to chronic disease, and subsequently enhance patient physical health. Therefore, they may explain why communal coping is linked to optimal adjustment for patients with chronic disease, as described above. Evidence for these proposed mediators is described in the next section.

We also note that relationship quality can be considered to be both a mechanism linking communal coping to good adjustment and an antecedent to communal coping. Thus, we show the feedback loop between relationship quality as an outcome and relationship quality as an antecedent variable.

Although not depicted in Figure 2, we also speculate that a similar set of mechanisms is likely to account for the link of communal coping to improved partner psychological health. Partners who perceive the stressor as shared and are involved in managing the stressor are likely to experience their own enhanced sense of self-efficacy as they feel capable and productive as a key contributor to patient outcomes. Partners are likely to experience a reduction in stress appraisal from the knowledge that joint efforts are being exerted to manage the illness which should enhance the likelihood that good patient adjustment outcomes are achieved. Finally, partners should experience an increase in relationship satisfaction from having the experience of working together to manage the illness. Because partners have not been the subject of investigations in the area of chronic illness, we view this as exploratory and suggest that these mechanisms are a subject for future research.

Empirical Evidence for Communal Coping and Adjustment to Chronic Illness

Here, we review the evidence for the model that we present in Figure 2. We begin by describing relationship quality as an antecedent to communal coping because it is the only antecedent variable that has been investigated. Next, we review the evidence that communal coping is related to optimal illness adjustment. The empirical literature has either combined the two components of communal coping into a single measure or has examined markers of one of the elements of communal coping. Finally, we examine the evidence for four potential mechanisms to explain the link of communal coping to adjustment.

Relationship Quality as an Antecedent to Communal Coping

The research evidence on whether relationship quality is an antecedent of communal coping is somewhat equivocal. For example, two studies of couples in which one person has a chronic health problem have shown that we-language is related to higher levels of relationship quality (Robbins, Mehl, Smith, & Weihs, 2013; Rohrbaugh et al., 2008), whereas two did not (Rentscher, Rohrbaugh, Shoham, & Mehl, 2013; Simmons, Gordon, & Chambless, 2005). These four studies, like the majority of the research in this area, are cross-sectional, however, making it difficult to disentangle cause and effect. In fact, as shown in Figure 2, we not only expect relationship quality to be an antecedent to communal coping but also to be an outcome of communal coping. As will be shown later in the article, there is longitudinal evidence for communal coping to be linked to changes in relationship quality over time. However, few studies have investigated the reverse causal association—whether relationship quality predicts the tendency to engage in communal coping. This would require a measure of relationship quality prior to the onset of the chronic illness, which would be methodologically difficult to achieve.

The best data on this issue come from studies of we-language, which is reflective of the shared appraisal element of communal coping. Some studies have measured relationship quality prior to an intervention and the language subsequently used during the intervention. One study found that baseline relationship distress was not associated with subsequent we-language used in an intervention (Hallgren & McCrady, 2016), whereas another study showed that baseline marital quality was related to the subsequent use of patient we-talk during the intervention (Rohrbaugh et al., 2012). From a conceptual standpoint, it would make sense that relationship quality is an antecedent to communal coping, but there have not been methodologically strong tests of this relation.

It is clear, however, that communal coping is not redundant with relationship quality. For example, in a couples-focused intervention to address one person's alcohol problems, Hallgren and McCrady (2016) showed that we-language during the treatment sessions predicted abstinence above and beyond baseline marital quality. Similar results were found by Rohrbaugh et al. (2008) in the context of couples in which one person had heart failure: Spouse we-talk in the context of coping with the patient's health problems was related to improvements in health outcomes over 6 months controlling for baseline levels of marital quality. We also found that a self-reported measure of communal coping predicted health outcomes among couples in which one person had type 2 diabetes when general relationship quality was statistically controlled (Helgeson, Jakubiak, Seltman, Hausmann, & Korytkowski, 2016).

Communal Coping and Illness Adjustment

In this section, we discuss research that has connected communal coping to positive illness adjustment outcomes, the ultimate outcomes depicted in Figure 2. Recall that the goal of communal coping is to enhance patient adjustment; accordingly, the vast majority of this research (and the vast majority of this review) focuses on positive adjustment in terms of the patient. We note, however, when research has linked communal coping to partner outcomes.

First, we present the few studies that have examined communal coping, as we have conceptualized it, which largely emphasizes our own research. Second, we present research that has relevance to the shared appraisal component of communal coping. Finally, we present research that has examined constructs relevant to the collaboration component of communal coping. Although shared appraisals or collaboration alone are not communal coping, we cite these areas of research to show that the two components of communal coping are related to illness adjustment; we speculate that shared appraisal and collaboration, in concert, would produce more robust effects on adjustment.

Communal coping. In a qualitative study of couples in which one person had type 2 diabetes, focus groups revealed that patients were most likely to exercise when patients and spouses adopted a team approach to diabetes, there was a shared sense of responsibility, and the couple had the sense that they were "in this together" (Beverly & Wray, 2010). These focus group members were addressing the two facets of communal coping: shared illness appraisal and collaboration. Similarly, an interview study of women with breast cancer revealed that a resilient group of people were those who reflected a "we attitude" and an approach to coping that meant "we're in this together" and "we can lick it through teamwork" (Skerrett, 1998).

We have measured communal coping in a variety of ways, each of which is intended to capture both shared illness appraisal and collaboration. Here we discuss each of these measures and how they are linked to adjustment outcomes.

First, we have used a self-report measure of communal coping that consists of shared illness appraisal items (e.g., "When you think about problems related to your diabetes, to what extent do you view this as 'our problem' [shared by you and your spouse equally] or mainly your own problem?") and collaboration items (e.g., When a problem related to your diabetes arises, how much do you and your spouse work together to solve it?). In a study of persons with type 2 diabetes, this measure was linked to enhanced diabetes self-care behavior (Zajdel et al., 2016).

Second, we have used a self-report measure of communal coping within the context of an ecological momentary assessment design. Couples in which one person had type 2 diabetes completed daily diaries for 14 consecutive days in which they provided ratings at the end of each day of shared illness appraisal (i.e., whether they perceived diabetes as a joint problem or mainly the patient's problem) and collaboration (i.e., how much they worked together to take care of diabetes that day). The two items were combined into an index of communal coping. When communal coping measures were aggregated across the 14 days for patients, the aggregate index was associated with better patient self-care behavior (Zajdel et al., 2016). We also examined the impact of communal coping on a given day and observed that daily patient communal coping was related to better same-day patient mood and self-care behavior, and daily partner communal coping was related to better same-day partner mood (Zajdel & Helgeson, under review). In addition, lagged analyses showed that patient communal coping was related to improved mood and enhanced self-care today compared with yesterday. Partner communal coping also was related to improved partner mood today compared with the previous day.

Third, we have employed a self-report measure of communal coping that we adapted from the Inclusion of Other in Self scale (IOS; Aron, Aron, & Smollan, 1992). The original IOS reflects an individual's perception of relationship closeness using a set of pictorial representations of the self and the other. An individual chooses the pair of circles that best describes his or her relationship from seven choices that vary in the degree of overlap, ranging from two mutually exclusive circles to two nearly overlapping circles. To measure communal coping in the context of coping with chronic illness, we modified the IOS instructions by asking couples to choose the pair of circles that best represented how they were coping with a new diagnosis of type 2 diabetes (as opposed to asking which sets of circles best describes the relationship). Thus, by modifying these instructions, we thought we might be adding the collaboration component of communal coping to the appraisal element that is already embedded in this measure. Indeed, this turned out to be the case, as we asked a subgroup of patients and partners to describe what they thought this measure assessed at the end of the study. The most common responses (which were not mutually exclusive as some respondents provided more than one definition) were as follows: (a) partner involvement in diabetes care (61%), (b) taking a teamwork approach to dealing with diabetes (44%), and (c) identifying whose responsibility diabetes was (35%). The first response reflects collaboration, the second response reflects both collaboration and shared appraisal, and the third response reflects shared appraisal. The adapted IOS as reported by both patients and partners was linked to reduced partner distress (Helgeson, Jakubiak et al., 2016) even when the general IOS was statistically controlled.

Finally, we have examined a behavioral measure of communal coping that reflects both shared illness appraisal and collaboration in the context of asking couples in which one person was recently diagnosed with type 2 diabetes to talk about a diabetes-related problem for 8 min. Two independent raters evaluated communal coping in the patient, and two different independent raters evaluated communal coping in the spouse by reviewing videotapes of these interactions. Communal coping was defined as the extent to which diabetes is viewed as a joint problem by the target person (patient or partner). It is a single code that captures the entire interaction and is based on a careful review of the entire interaction, using the procedures of Feeney and colleagues (Collins & Feeney, 2000; Feeney, 2004, 2007). Strong evidence for communal coping comes from appraisal statements that diabetes is shared (e.g., "your problem is my problem, we're in this together") as opposed to statements that diabetes is one person's problem (e.g., "not we, you, you need to exercise because I don't have a problem"). Other evidence for communal coping comes in the context of "we-language" that is tied to content that indicates couple members are working together to manage diabetes (e.g., "we watch what we eat" as opposed to "we keep getting off track in this discussion"). Thus, the behavioral measure of communal coping captures both the shared appraisal and the collaboration elements of the communal coping process, which are often closely linked in conversation. Findings reveal that both patient and partner observed communal coping are related to reduced patient distress, better patient self-care behavior, and enhanced patient medication adherence (Zajdel et al., 2016). Partner observed communal coping also is related to patient reports of having made more progress in resolving diabetes problems during the discussion (Van Vleet & Helgeson, 2016).

Thus, taken collectively, the varied measures of communal coping have each been linked to reduced patient distress, enhanced patient self-care, and improved patient physical health. Although less often studied, relations of communal coping to partner psychological well-being have been consistently positive.

Shared illness appraisals. There is a substantial body of research that has examined the shared appraisal aspect of communal coping with "we-language." We-language typically reflects the use of first person plural pronouns in the context of illness discussions. Individuals who use greater we-language when discussing how they cope with their chronic illness or their partner's chronic illness are presumed to have a greater shared illness appraisal. We-language could reflect communal coping to the extent that the appraisal is linked to collaboration. However, this is not necessarily the case. For example, "we exercise together" includes not only a shared appraisal but also collaboration, whereas "we have been together a long time" does not reflect collaboration. It appears to us that we-language is a better marker of shared illness appraisal than collaboration, which is why we discuss this body of research here.

Research has shown that we-language is linked to good behavioral and health outcomes in the context of chronic illness—especially when the language is displayed by the partner. In a study of persons with heart failure, couples discussed how they coped with the patient's heart failure problems, and responses were coded for pronoun usage (Rohrbaugh et al., 2008). Spouse we-talk, but not patient we-talk, predicted positive changes in patients' physical symptoms and general health over 6 months, independent of relationship quality. When families of women with breast cancer were interviewed about how they coped with and adjusted to cancer, partner we-talk during this interview was related to reduced patient depression, whereas patient we-talk and children we-talk were not associated with outcomes (Robbins et al., 2013).

We-language also has been related to positive treatment outcomes. In a smoking cessation intervention aimed at couples in which one person had heart or lung disease, spouse we-talk in the context of a discussion about health-related disagreements prior to the intervention predicted greater 12-month abstinence following the intervention (Rohrbaugh et al., 2012). The intervention aimed to enhance communal coping by having couples recollect past successful joint coping efforts and framing the therapy as beneficial for the couple. Increases in we-talk over the course of the intervention by both patients and spouses predicted cessation, controlling for baseline levels of we-talk during the discussion prior to the intervention. Similar findings appeared in a study aimed at couples in which one person abused alcohol (Rentscher et al., 2017). Not only did spouse we-talk during the intervention predict successful treatment outcomes, but patient and spouse I-talk (i.e., independent appraisal) predicted unsuccessful treatment outcomes. In another study of couple-based treatment for alcohol use disorder, greater patient and partner we-talk during the therapy session was related to greater abstinence during treatment (Hallgren & McCrady, 2016). In addition, greater partner we-talk, but not patient we-talk, predicted abstinence 6 months later.

In our work, we examined pronoun usage among persons with type 2 diabetes and their partners when each was asked how they were coping with diabetes (Helgeson, Jakubiak, et al., 2016). Partner we-language was related to reduced patient distress and to better patient self-care behavior. These relations held when overall relationship quality was statistically controlled. By contrast, patient we-language was not related to any of these outcomes. Thus, there seems to be a substantial body of work linking we-language in the context of illness discussions to patient health, especially when we-language is used by partners.

Shared appraisal was examined more directly in the previously described laboratory study of dating couples in which one person had to give a speech task (Helgeson, Hochstedler,

& Essien, 2016). Although the study did not focus on chronic illness, it did manipulate shared versus individual appraisal of the stressor. Recall that the shared appraisal condition, compared with the individual appraisal condition, not only led to greater collaboration but also was associated with less physiological reactivity to the stressor and greater recovery following the stressor.

With the exception of the laboratory study, this body of research examines we-language in the context of illness-related discussions. None of the published studies on chronic illness has examined the link between we-language in the context of health-related discussions to individuals' propensity to use "we" in their general language or in the context of their relationships.[2] However, two intervention studies showed that there was only modest—and sometimes no—correspondence between we-talk in the context of talking about a health problem prior to the intervention and we-talk during the intervention, suggesting that the language used in the context of illness is unlikely to reflect stable individual difference variables (Rentscher et al., 2017; Rohrbaugh et al., 2012).

In sum, there is a substantial body of work that has linked we-language in the context of illness-related discussions to positive behavioral outcomes and better psychological and physical health among patients with chronic disease, although the specific context in which the we-language occurs is not certain. The benefits of we-language seem to be more consistent when stemming from partners, suggesting that it is especially critical that partners appraise the illness as shared. As stated earlier, consistent with Lyons et al. (1998), we argue that communal coping can be beneficial as long as one person holds a shared illness appraisal. Between patients and partners, it makes sense that partner shared illness appraisal will have the stronger effect because partners will not become involved in managing the disease without their own shared appraisal. We return to the issue of patient and partner appraisal congruence at the end of this article.

Collaboration. Some studies have focused specifically on constructs related to the first conceptualization of the collaboration component of communal coping shown in Figure 1 (#1 collaboration). Collaboration is a prominent feature of Berg and Upchurch's (2007) model of dyadic coping in the face of chronic illness. They suggested that when one person faces a chronic illness, the resources of both patient and partner are activated. They conceptualize dyadic coping as lying on a continuum ranging from partner uninvolvement to partner overinvolvement.

In their review of the different forms of dyadic coping, they conclude that positive outcomes result when dyadic coping involves support or collaboration and negative outcomes result when dyadic coping involves control strategies (e.g., overprotective behavior) or uninvolvement (see Table 1). They demonstrated the importance of collaboration in a 14-day daily diary study of men with prostate cancer in which patients and spouses were asked how daily stressors were handled each day, using the four categories shown in Table 1 (Berg, Wiebe, et al., 2008). They found that daily collaboration in contrast to the other daily responses was related to more positive emotions in both husbands and wives. They conceptualized collaboration in the same way that we do (i.e., couple works together), but they did not take into consideration the shared appraisal aspect of communal coping. However, Berg and Upchurch (2007) did suggest that collaboration may be more adaptive in the presence of shared illness appraisals.

Other researchers have investigated a limited version of collaboration. In a study that employed focus groups with people diagnosed with type 1 diabetes who were using continuous blood glucose monitoring, couples noted that the device worked best when couples collaborated on overall diabetes management (Ritholz et al., 2013). Conflict seemed to erupt when patients were completely responsible for diabetes management, and spouses did not understand how the device worked.

Collaboration is also central to one of the dyadic coping strategies that Bodenmann includes in his theory of dyadic coping. Bodenmann (1995, 1997) outlines a number of positive and negative dyadic coping strategies, one of which is common dyadic coping. Common dyadic coping is defined as joint problem-solving, joint information-seeking, sharing of feelings, mutual commitment, and relaxing together (see Table 1 for scale items). Patient common dyadic coping has been linked to fewer depressive symptoms 5 months later among women with breast cancer (Rottman et al., 2015) and better patient diet and exercise adherence among persons with type 2 diabetes (Johnson et al., 2013). Thus, the common dyadic coping scale approximates the collaboration component of communal coping, and is the subscale that shows the strongest links to good health outcomes. However, the common dyadic coping subscale lacks shared illness appraisal which is central to our theory of communal coping and includes other positive ways of relating to one another besides collaboration (e.g., relaxation; see Table 1) which might explain its strong connection to relationship satisfaction.

In summary, we have measured communal coping in a variety of ways, each of which measures both shared illness appraisal and collaboration, and found consistent links to health outcomes. Other researchers have measured constructs that overlap with either shared illness appraisal or collaboration (often with methodological limitations), but not both, and also found evidence for health benefits. Because shared illness appraisal optimizes the links of collaboration to health outcomes (as we argued earlier), we suggest that communal coping will show stronger and more robust associations with health outcomes than shared appraisal or collaboration alone.

Evidence for Mechanisms Linking Communal Coping to Adjustment to Chronic Illness

Below, we provide supportive evidence from relevant research and theory for four mechanisms linking communal coping to positive illness adjustment. Within each section, we first draw connections between communal coping and the hypothesized mechanism, and then briefly review the evidence linking the mechanism to adjustment outcomes.

Self-efficacy. We have found in our own work that both self-reported communal coping on the part of patients and observed communal coping on the part of patients and partners is related to higher patient self-efficacy (Zajdel et al., 2016), defined as the belief that one can successfully execute a behavior. Language indicative of shared illness appraisals also is related to self-efficacy (Hochstedler et al., 2016).

A related body of research provides indirect support for a link between communal coping and self-efficacy. In their work, Greenaway and colleague (2015) showed that incorporation of the group into one's self-identity (which they describe as the shift to "we" from "me") leads to enhanced perceptions of control because the person perceives that they have available the resources, self-esteem, and social support of the larger group instead of relying on their own individual resources. We see the concept of shared group identity as similar to our construct of communal coping in that it redefines individual goals into joint goals and involves a pooling of resources. Consistent with our theory, Greenaway and colleagues (2015) assert that the key mechanism in this process is perceived personal control (defined as feeling more capable of achieving desired outcomes), which is conceptually indistinguishable from self-efficacy.

Self-efficacy is then likely to be related to reduced psychological distress, to lead to greater efforts to make positive health behavior changes, and to improved subsequent physical health. Self-efficacy has been linked to better diabetes management and better glycemic control among older adolescents with type 1 diabetes (Iannotti et al., 2006). In a study of women with breast cancer, self-efficacy mediated the relation of physical activity to enhanced quality of life (Phillips & McAuley, 2014). Self-efficacy also was related to reduced depression and enhanced treatment adherence in a study of persons with heart failure (Maeda, Shen, Schwarz, Farrell, & Mallon, 2013). In that same study, self-efficacy partly accounted for the relations of social support to treatment adherence and fully accounted for the relation of depression to treatment adherence. In addition, a daily diary study of men with prostate cancer and their wives showed that perceived coping effectiveness—a construct similar to self-efficacy—mediated the link between daily collaboration and positive mood (Berg, Wiebe, et al., 2008). Indeed, there is a great deal of research that has linked self-efficacy and personal-control constructs to health (see Ross & Mirowsky, 2013, for a review).

Stress appraisal. Consistent with our theoretical model (Figure 2), empirical evidence has linked communal coping to lower stress appraisal. In a study of adults with type 2 diabetes, our previously described self-report and observed measures of communal coping were linked to lower levels of perceived stress (Zajdel et al., 2016).

Although no other work has directly linked communal coping to reduced stress appraisal, work incorporating a social baseline theory perspective (Coan, 2008) provides indirect support that communal coping should reduce stress appraisals. According to this theory, individuals expect to be included in supportive social networks and experience less threat when others (especially close others) are proximal. For example, one study showed that individuals who were accompanied by a friend perceived a hill to be less steep than individuals who were alone (Schnall, Harber, Stefanucci, & Proffitt, 2008). Social baseline theory suggests that one explanation for this finding is perceived load sharing, which we would argue reflects collaboration. In the context of communally coping with a chronic illness, when individuals have a shared illness appraisal, they should perceive more available resources to manage the illness and expect to collaborate in dealing with illness-related issues. Thus, communal coping should lead to reduced stress appraisals.

Stress appraisal is an important mechanism linking communal coping to illness adjustment outcomes because perceived stress has been linked to poor psychological and physical health. There is substantial evidence that stress appraisal is linked to health outcomes in the area of chronic illness. Research has linked stress appraisal to increased psychological distress, noncompliance with physician instructions, and physiological effects that directly affect disease (see Dougall & Baum, 2012, for a review). For example, a study of persons with cancer showed that a high degree of perceived stress after diagnosis predicted long-term maladjustment 6 years later (Grassi & Rosti, 1996). In terms of health behaviors, perceived stress has been linked to fewer good health behaviors (e.g., eating a low fat diet, regular exercise) and more health-damaging behaviors (e.g., smoking, alcohol use; Ng & Jeffery, 2003). Given these linkages of stress appraisal to psychological, behavioral, and physiological deficits, it is not a surprise that stress management interventions have been shown to improve adjustment to disease (see Faul & Jacobsen, 2012, and Schneiderman & Orth-Gomer, 2012, for reviews).

Self-regulation. Although research has not directly tested whether communal coping promotes self-regulation, there is evidence that sharing responsibility for managing a disease is beneficial to health outcomes. Specifically, studies of children with type 1 diabetes show that children's management is best when parents and children share the responsibility for diabetes self-care—even in later adolescence (Helgeson, Reynolds, Siminerio, Escobar, & Becker, 2008). Sharing responsibility may be beneficial, in part, because executing complex disease management regimens requires a great deal of self-regulation, and this burden can be shared and reduced when two people work together. This is an important yet unexplored avenue for future research.

There is research that, on its surface, might suggest that communal coping will reduce rather than enhance self-regulatory resources. In their theory of "self-regulatory outsourcing," Fitzsimons and Finkel (2011) argue that individuals exert less effort to achieve a goal after thinking about how others might help them achieve the goal. That is, effort is outsourced to partners. In a series of studies, they show that outsourcing (i.e., reduced individual effort toward a goal when thinking about how the partner helps with the goal) is most likely to occur when self-regulatory resources are low (i.e., depleted), and that outsourcing enhances relationship commitment. However, an alternative explanation for these findings is that lower levels of effort may actually be needed to achieve the goal if the burden is shared. If the partner is contributing effort, outcomes may be more achievable with a lower level of personal effort. Thus, we argue that partner involvement in disease management may help patients to self-regulate when necessary and may allow them to rely on their partners to regulate as well. In a theoretical article that examines interpersonal influences on self-regulation, Fitzsimons and Finkel (2010) similarly argue that relationship partners can help to regulate goal pursuit, which ultimately has the effect of increasing the likelihood that goals are achieved.

There are many theories of self-regulation (e.g., Carver & Scheier, 2001; Leventhal, Leventhal, & Contrada, 1998), and large bodies of work that connect self-regulation with psychological well-being, health behavior, and good physical health (Bandura, 2005; Maes & Karoly, 2005; Scheier et al., 1989, 1999). In fact, successful interventions aimed at disease management often have enhanced self-regulation as an underlying principle behind the treatment without necessarily articulating it (see Maes & Karoly, 2005, for a review).

Relationship quality. In our own work, we have found links of self-reported and behavioral measures of communal coping to better patient relationship quality (Helgeson, Jakubiak, et al., 2016; Zajdel et al., 2016). In a study of persons with heart failure, a two-item measure of communal coping, one of which captured the appraisal component and one of which captured the collaboration component, was related to greater marital quality (Rohrbaugh et al., 2008). In related work, collaboration has been linked to greater marital satisfaction for both husbands and wives (Berg et al., 2008), and the common dyadic coping subscale from the Bodenmann instrument was related to increases in relationship quality over 5 months, controlling for baseline levels (Rottman et al., 2015). A meta-analytic review of the literature on Bodenmann's dyadic coping scales (Falconier, Jackson, Hilpert, & Bodenmann, 2015) found the strongest links to relationship satisfaction for the common dyadic coping scale ($d = +.53$). Although this measure assesses more than our specific definition of communal coping (i.e., also includes relaxation and affection), this finding suggests that collaboration may contribute to enhanced relationship quality.

Communal language in the context of health-related discussions (which we argue reflects the shared appraisal element of our communal coping definition) also has been related to relationship outcomes among couples coping with health problems. In a study of couples in which one person with heart or lung disease had abused alcohol or smoked cigarettes, a higher ratio of we-talk to I-talk during a discussion of a health-related disagreement was related to more adaptive communication (i.e., less demand-withdraw pattern; Rentscher et al., 2013). In an intervention study with couples with heart disease or lung disease, we-talk was associated with higher marital quality for patients but not spouses (Rohrbaugh et al., 2012).

Relationship quality may then mediate the link between communal coping and illness adjustment. Indeed, a large body of evidence has linked indicators of relationship quality to health (see Thoits, 2011; Uchino, 2009; Wills & Ainette, 2012, for reviews). Relationships are a central aspect of people's quality of life, and relational distress reduces psychological well-being (Proulx, 2007; St. John & Montgomery, 2009) and is linked to markers of inflammation (Donoho, Crimmins, & Seeman, 2013). Longitudinal research has linked changes in marital quality over 5 years to changes in cardiovascular risk factors, such as the development of hypertension, increased levels of C-reactive protein, and the occurrence of cardiovascular events (Liu & Waite, 2014). In a study of persons undergoing coronary artery bypass surgery, those who reported higher marital satisfaction were more likely to be alive 15 years later (King & Reis, 2012). A meta-analytic review of the literature over the past 50 years showed a significant link of marital quality to good physical health (Robles, Slatcher, Trombello, & McGinn, 2014).

Researchers have proposed that relationship satisfaction is related to health in part because it leads to the adoption of positive health behaviors (Cohen, 2004). Specifically, being part of a social network and having close relationships is a source of social pressure to enact good health behavior and leads one to be more motivated to take care of the self (Cohen, 2004). Indeed, existing work has linked indicators of relationship quality to better health behavior. In one study, youths' relationship quality with parents during early adolescence predicted reduced risk behavior among emerging adults 7 years later (Helgeson et al., 2014). In an ecological momentary assessment study of youth with type 1 diabetes, aggregate indices of enjoyable interactions with friends were associated with better self-care behavior (Helgeson, Lopez, & Kamarck, 2009).

Potential Moderators of the Relation of Communal Coping to Relationships/ Health

We recognize that the process that we propose linking communal coping to positive illness adjustment may be qualified by several moderator variables. Here we discuss what we consider to be three of the most important potential moderator variables, which are shown at the top of Figure 2: (a) the extent to which dyad members are congruent on illness appraisals, (b) patient preference for independence, and (c) partner overinvolvement. These three variables are ones that easily come to mind when thinking about how beneficial communal coping would be to an individual person in part because they all have implications for how the communal coping process unfolds.

Appraisal Congruence

Communal coping is most likely to be related to optimal illness adjustment outcomes when both patients and partners hold shared illness appraisals and subsequently engage in collaborative effort to manage the illness. Although there is little empirical work on this issue, Badr (2004) found that congruence on Coyne et al.'s relationship-focused coping strategy of active coping was related to greater marital adjustment. Researchers, however, have not examined congruence in shared illness appraisals. As Figure 1 shows, shared illness appraisals lead to distinct behaviors on the part of patients and partners. Patient shared illness appraisal leads them to request support and be responsive to support. Partner shared illness appraisal leads them to provide support that is responsive to patient needs. Thus, both patient and partner illness appraisals are important to take into consideration.

Couples vary in the degree to which they hold a shared illness appraisal. In our work with couples in which one person has type 1 diabetes, 26% of patient said the illness was *completely* shared compared with 71% of partners. Similarly, in our work with couples in which one person is recently diagnosed with type 2 diabetes, 33% of patients compared with 73% of partners said the illness was *completely* shared. However, there also is variability in the degree to which an illness is appraised as shared, as some couple members may view the illness as partly shared. That is, shared illness appraisal is not an "all-or-none" phenomenon, as shown in Figure 1.

Although there are likely to be some discrepancies in the degree to which patients and partners appraise the illness as a shared problem, we agree with Lyons et al. (1998) in their original conceptualization of communal coping that some benefits will occur as long as one person holds the shared illness perspective. However, we expect that the maximum benefits of communal coping will occur if both couple members appraise the illness as shared. If couples are in disagreement in regard to how much the illness is shared, there is greater potential for patient–spouse illness interactions to be interpreted as less supportive and less potential for health benefits to be realized.

If the discrepancy in appraisal is large, such that the patient adopts a completely shared illness appraisal and the partner perceives the illness to be solely the responsibility of the patient alone, the partner may resent being involved in the illness, be unwilling to provide support, and be more likely to provide unresponsive support. The patient will also be unhappy with the situation as his or her expectations for partner involvement and collaboration are not being met. Relationship problems are likely to erupt due to disagreement in perceptions, and health is likely to suffer due to the failure to pool resources.

Incongruence also could occur when there is a large discrepancy in the direction of the patient holding an individual illness perspective and the spouse holding a greater shared illness perspective. This discrepancy may stem from personality variables that lead the patient to have an independent appraisal (see next moderator "preference for independence") or could stem from the patient's concerns about burdening the partner. When young adults with type 1 diabetes were asked how their partners made it more difficult for them to take care of their diabetes, the most frequent comment was "partner distress" (Helgeson, in press). That is, patients were concerned about their partners becoming distressed about their diabetes. To the extent this holds true, patients may be reluctant to perceive the illness as shared either because they do not want to be a source of stress for their partner or they have a partner who is easily distressed. This may be one reason that patients are less likely than partners to state that the illness is a completely shared stressor.

Regardless of the source of this type of incongruence, this pattern of incongruence is likely to undermine patient outcomes. Patients who hold a more individual illness appraisal are unlikely to communicate about the illness with partners and are unlikely to seek needed support. In addition, patients with independent illness appraisals may be unreceptive to partner support overtures and may view spouse behavior as controlling and intrusive rather than helpful, as they are not interpreting the support received as collaboration. Partners may be unhappy and feel underappreciated because support attempts are not accepted. These patients will not be able to take advantage of the potential for shared resources to address the health threat.

We view the former incongruence as more detrimental than the latter incongruence because the former implies that partners are not involved and the latter implies that partners are overly involved from the patient's perspective. In our work with young couples in which one person has type 1 diabetes, partner underinvolvement was consistently problematic in terms of relationships and health, whereas partner overinvolvement had mixed effects (Helgeson, in press). If partner shared appraisal is more critical than patient shared appraisal, this may explain why research on we-language has more consistently linked partner we-language than patient we-language to good patient adjustment outcomes.

Patient Preference for Independence

There are many personality traits of patients that are likely to influence the effectiveness of communal coping. One likely candidate is the patient's general desire or preference for independence—a preference that may extend beyond health domains. Although we believe that communal coping will generally lead to beneficial outcomes for patients with chronic illness, we recognize that some people are fiercely independent and resent involvement by others in the challenges they confront. Patients who prefer independence are not only less likely to endorse a shared illness appraisal, but are less likely to benefit from partner collaboration efforts and support. As shown in Figure 1, partner support is most adaptive in the presence of shared illness appraisal. Some have argued that spouse uninvolvement will be most adaptive when patients appraise the illness as an individual problem (Berg & Upchurch, 2007). However, Lyons et al. (1998) caution against assuming that interpersonal issues are not involved when an individual appraises a stressor as an individual problem. Individuals who perceive a stressor to be their own problem rather than a joint problem may be denying the effects of the stressor on their partner.

Two studies of persons with osteoarthritis examined an individual difference variable reflective of a preference for independence—the extent to which independence was central to their self-concept (Martire, Stephens, Druley, & Wojno, 2002; Martire, Stephens, & Schulz, 2011). Although the investigators did not measure communal coping, they did find that instrumental support was related to good adjustment outcomes among people for whom independence was *not* central to their self-concepts but poor adjustment outcomes among people for whom independence was central to their self-concepts. Partner support may not have been as beneficial for those for whom independence was central to their self-concept, in part because it was not viewed as collaborative.

One likely indicator of preferences for independence is avoidant attachment style. Avoidant attachment is an individual difference variable characterized by a discomfort with closeness and intimacy and a strong desire to be self-reliant (e.g., Hazan & Shaver, 1987). Avoidant individuals may be less comfortable with support as they are less inclined to seek it when distressed (Beck, Pietromonaco, DeBuse, Powers, & Sayer, 2013; Carnelley, Pietromonaco, & Jaffe, 1996; Collins & Feeney, 2000, 2004; Florian, Mikulincer, & Bucholtz, 1995; Simpson, Winterheld, Rholes, & Orina, 2007), more likely to seek support in less effective ways than their secure counterparts (Collins & Feeney, 2000), and more likely to interpret partners' ambiguous support attempts in a more negative light than secure individuals (Collins & Feeney, 2004).

Patients who are high in avoidant attachment may be less likely to experience the benefits of communal coping for several reasons. First, avoidant individuals have a strong desire for self-reliance, so they may perceive their partners' attempts to cope communally as intrusive or controlling. Second, avoidant individuals may be less likely to acknowledge and disclose illness problems to their partner and instead handle problems on their own, which may limit the ability of both members of the couple to appraise the illness as a shared issue and to engage in collaboration. To date, no published work has examined whether attachment style moderates the links of communal coping to adjustment.[3]

Partner Overinvolvement

Just as patient preference for independence may make communal coping less effective, partner tendencies to become overinvolved in patient's illness management also may make communal coping less effective. One personality trait linked to overinvolvement is unmitigated communion.

Unmitigated communion reflects a focus on others to the exclusion of the self. It is associated with a set of interpersonal difficulties that reflect overinvolvement with others, such as being intrusive, overly nurturant, overprotective, and establishing relationships by putting others' needs before one's own (Fritz & Helgeson, 1998; Helgeson & Fritz, 1998). There are reasons to believe that involvement in disease management by a partner with high levels of unmitigated communion might not benefit patient's health. When unmitigated communion individuals help others, their overtures may be perceived as intrusive or excessive. In addition, their communal coping efforts may not be perceived as responsive to patient needs. Those characterized by unmitigated communion are eager to help others, but their helping is motivated more by egoistic rather than altruistic concerns (Helgeson & Fritz, 1998). That is, their help is motivated by a need to enhance one's own esteem in the eyes of others rather than to meet others' needs.

In our study of adult couples in which one person was recently diagnosed with type 2 diabetes, we found that partner unmitigated communion moderated the relation of partner communal coping to patient outcomes (Helgeson, Seltman, Korytkowski, & Hausmann, in press). That is, partner communal coping was related to lower patient distress, higher patient self-efficacy, and higher patient medication adherence only when partners scored lower on unmitigated communion. There were no benefits of communal coping when partners scored high on unmitigated communion and some evidence of negative effects. Patient perceptions that high unmitigated communion partners were unresponsive to their needs and were overprotective partly explained these relations.

Other Moderators

We acknowledge that there may be other classes of moderator variables that influence the effectiveness of communal coping. Here we briefly refer to two classes of moderator variables as avenues for investigation by future research.

First, there may be demographic moderators such that certain groups of individuals are most likely to benefit from communal coping. Patient sex may be one of these, as women seem to be more responsive to the quality of their relationships than men (Donoho et al., 2013; Kiecolt-Glaser & Newton, 2001). Race, ethnicity, and culture also may influence the effectiveness of communal coping, as interdependence is more central to the identities of some groups of people than others and, thus, may lead to greater expectations for communal coping.

Second, there may be aspects of the illness experience that influence the effectiveness of communal coping. Anthropologists distinguish between the disease, which is the clinician's diagnosis of the problem, from the illness, which is the patient's perception of the experience (Kleinman, 1987). In fact, they caution that the same disease may manifest itself in different ways, or as different illnesses, and it is the illness experience that is more predictive of distress and disability. One theoretical model that takes into consideration individual's conceptualizations of their illness is the common sense model of self-regulation (Leventhal, Brissette, & Leventhal, 2003). According to the common sense model, there are dimensions of illness representations that influence how people cope. Of these dimensions, several may affect the benefits of communal coping. For example, illness symptoms (i.e., experiencing more symptoms of an illness), illness chronicity, illness consequences (i.e., illness severity), emotional representations (i.e., emotional impact)—may all reflect a context that is more taxing of resources and, thus, would most benefit from communal coping.

Limitations or Boundary Conditions on Communal Coping

There are likely to be limitations on the benefits of communal coping. Some suggest that communal coping may paint an "unrealistic picture of the durability of social cohesion and of social responsibility in the face of stress" (Mickelson et al., 2001, p. 197). Relationships are not only characterized by support and collaboration but often face conflicts, suffer from a lack of communication, and involve competing needs. In some couples, communal coping may not be possible because the partner is unhelpful or would be overwhelmed by sharing the problem, causing the patient even more distress. In that case, the patient may have another network member with whom he or she can cope communally. Here we address some of the potential boundary conditions of communal coping.

Enmeshment

One concern raised in regard to communal coping is that in the extreme the relationship could come to be defined by the illness. Couples need to establish boundaries as to when they will and will not focus on the illness, so that the illness does not overcome them. According to Rolland (1994), couples have to learn to relinquish aspects of their lives before the illness and learn how to incorporate the illness into their relationship. However, if the relationship comes to be defined by the illness, couples could become enmeshed. Communal coping is not the same as enmeshment. Enmeshment is the lack of differentiation of the self from another and manifests itself as intrusive, controlling, and constraining behavior that inhibits the development of autonomy (Barber & Buehler, 1996; Green & Werner, 1996). Enmeshment has been distinguished empirically from relationship closeness. Enmeshment is not a supportive process, is related to a reduction in self-efficacy, and is associated with poor relationship functioning (Green & Werner, 1996; Petrican, Burris, Bielak, Schimmack, & Moscovitch, 2011). We assert that communal coping will not be beneficial when a couple's relationship is characterized by enmeshment.

Other work has examined enmeshment in terms of an individual's connection with the illness rather than the couple's connection with the illness. It has been theorized that incorporating the physical limitations and cognitive constructions of the illness into one's sense of self will be beneficial to adjustment to chronic illness, whereas defining oneself by the illness will not (Charmaz, 1995). According to Charmaz (1995), successful adjustment means "living with the illness without living solely for it." Individual illness enmeshment, or defining oneself in terms of the illness, has been linked to greater illness distress and lower levels of well-being across a variety of illnesses (Buchi et al., 2002; Klis, Vingerhoets, de Wit, Zandbelt, & Snoek, 2008). Illness enmeshment has been linked to a loss of autonomy and control (Buchi et al., 2002), and may play a role in the maintenance of depression among those with chronic disease (Pincus & Morley, 2001). Thus, communal coping is unlikely to have positive effects when individuals exhibit illness enmeshment.

Maladaptive Collaboration

One might raise the concern that communal coping is maladaptive when it involves joint collaboration in maladaptive behavior. If couples jointly engage in unhealthy behaviors, we-talk may reflect a joint endeavor to adopt risk-taking behaviors. That is, couples could decide that they both are going to ignore physician instructions and engage in unhealthy behaviors. One study supported this idea by examining the association between a dysfunctional eating behavior—eating to regulate emotions (ERE)—and body mass index (Skoyen, Randall, Mehl, & Butler, 2014). The authors suggested that we-talk in the context of couples in which both partners scored high on ERE might be maladaptive and that I-talk could be adaptive because it would reflect an individual's ability to maintain autonomy from a spouse who is engaging in maladaptive behavior. Indeed, the investigators found that we-talk coded from couple's conversations about their lifestyle was associated with a higher body mass index (BMI) among couples who had a higher average ERE. I-talk was related to reduced BMI, especially among high ERE couples.

Although these instances are characterized by maladaptive collaboration, it is not clear that the couples are engaging in communal coping because there is no evidence of shared illness appraisal. If a couple defines a problem as shared, it is unlikely that they would jointly respond to that problem by engaging in behavior that would exacerbate rather than alleviate the problem. In addition, we have defined collaboration as joint effort to manage the illness. We question whether joint effort to ignore a physician's instructions is managing the illness.

Costs to Partner

One concern with communal coping is that there might be costs to the partner in terms of illness involvement. Partners may feel burdened by their involvement in the illness and may become distressed by either the increased knowledge surrounding the health problem and/or exposure to the patient's distress. The extent to which these costs exist is not clear, although the previously reported links to partner psychological health suggest that costs may not be the norm. Our work with couples in which one person has type 2 diabetes shows that both patient and partner self-reports of communal coping are related to lower levels of distress among partners (Helgeson, Jakubiak, et al., 2016). Analyses using the actor–partner interdependence model showed that observed communal coping (from videotaped diabetes problem discussions) are related to higher relationship quality in both patients and partners (Van Vleet, Helgeson, Seltman, Korytkowski, & Hausmann, 2016). Because of these findings, we argue that the costs of communal coping are outweighed by the benefits for both patients and partners. Partners who are not involved in the illness may feel excluded from the problem, which could have adverse effects on the relationship. Uninvolved partners also may be distressed either because they do not know how to be helpful or because they offer unresponsive support that is not helpful and rejected by the patient.

Future Research Directions

We discuss five directions for future research: (a) further study of measurement issues in communal coping, (b) expansion of communal coping to network members other than romantic partners, (c) determination of whether communal coping with chronic illness generalizes to non health-related stressors, (d) examination of the communal coping process as it unfolds over time to determine how outcomes subsequently affect communal coping efforts, and (e) development of communal coping-based interventions. We expand on each of these possible directions below.

Measurement Issues in Communal Coping

We conceptualize communal coping as shared illness appraisal and collaboration to manage the illness. Although illness appraisal and collaboration can be distinguished conceptually, we believe that measures of communal coping should capture both elements. Other researchers who have studied collaboration and collaboration-related constructs have not measured illness appraisals, but similarly acknowledge that collaboration would benefit from the inclusion of shared appraisal (e.g., Berg & Upchurch, 2007; Berg et al., 2009).

As research on communal coping is still in its infancy, we have attempted to measure the construct in a variety of ways (as described in the first section of "Communal Coping and Illness Adjustment"). These measures are unique from previous measures that approximate either shared illness appraisal or collaboration alone (see Table 1), and they provide an improvement over past measures because they each capture both components of communal coping. Our self-report measures show correlations of .38 to .57 between appraisal and collaboration items, which demonstrates that they are distinct but related constructs. This is consistent with our model of the process of communal coping, which suggests that shared appraisal leads to collaboration.

Compared with self-report measures, the measure of communal coping that is most predictive of psychological and behavioral outcomes in our work is the observational measure recorded from videotaped interactions (Zajdel et al., 2016). In our study of adult couples in which one person has type 2 diabetes, the observational measure of communal coping that assesses the extent to which diabetes is viewed as a joint problem and couple members work together to manage the disease is most strongly linked with psychological well-being outcomes and self-care behavior. This measure includes reports of shared illness appraisals ("this is something that we both have to deal with") and "we-language" but allows coders to isolate specific instances of we-language that indicates couple members are working together.

Although we argue that both shared appraisal and collaboration are essential elements to the measure of communal coping, it is up to future researchers to decide whether they want these components to be measured separately, which could be accomplished by self-report, or simultaneously, which is reflected in observational measures. Whether the components are measured separately or simultaneously depends on the investigator's goal. If the goal is to study the communal coping process, it would be useful for researchers to separate the two components within a measure. To do so, our brief self-report measure of communal coping would need to have additional items that tap each component. If the goal is to examine illness adjustment, a separation of the components is not essential. As stated previously, research on communal coping as a united construct is still in its early stages; thus, our measures have room for improvement.

Expanding Communal Coping to Other Partners

Another important future direction is to expand the body of research on communal coping to dyads other than romantic partners. Communal coping is more likely to occur with network members to whom one is closest. Considering the convoy model of social networks, which is depicted as a set of three concentric circles surrounding the individual (Antonucci & Akiyama, 1987; Kahn & Antonucci, 1980), we would argue that one is most likely to observe communal coping with network members in the inner most circle. Individuals in the inner circle are the most important support providers and recipients. These network members are not only—or not always—a spouse or romantic partner. For example, the primary caregiver in LGBT (lesbian, gay, bisexual and transgender) persons with chronic illness is just as likely to be a friend as a romantic partner (e.g., Fredriksen-Goldsen, Kim, Muraco, & Mincer, 2009). It is also the case that marriage and two-parent families are more common among White people than ethnic minorities. Research has shown that extended family is more prevalent in the lives of Black individuals than White individuals (Taylor, Chatters, Woodward, & Brown, 2013) and that other network members aside from the spouse are more likely to be involved in the management of a chronic illness among Black than White people (August & Sorkin, 2011).

It also is possible that communal coping can extend beyond a dyad to include groups such as families. In their original statement of communal coping, Lyons et al. (1998) said that the size of the group coping communally can range from a dyad to a community. In a study of women with breast cancer, Robbins et al. (2013) examined we-language during family discussions that involved partners as well as children. However, it was only the partner's we-language that was related to patient outcomes. Children, especially those who are young, may not have the mental or physical resources to engage in collaboration. It is also not normative for parent–child relationships to be interdependent in the same way that adult relationships are. Thus, although communal coping can extend beyond dyads and beyond romantic partners, we believe that it is most relevant when examined in conjunction with network members who are closest to the partner, have opportunities for collaboration, and are capable of engaging in collaboration with the patient.

Generalization of Communal Coping Beyond the Health Context

Communal coping is an especially useful framework to study adjustment in the context of chronic illness because the health threat typically affects one person and the theory can show how shared appraisals and collaboration between partners can have a positive effect on the psychological, behavioral, and physical health of that target individual. Of all health threats, communal coping is particularly applicable to chronic illness because the health threat, by definition, persists. Thus, coping efforts need to be sustained, and communal coping might be more likely to ensure that this occurs. A third reason that communal coping is especially applicable to the context of health is that many of the coping management strategies are behavioral (e.g., changes in diet, exercise) which are amenable to partner involvement.

However, the model of communal coping that we present would seem to be equally applicable to other threats an individual faces that are not necessarily health-related but are chronic in nature, such as the loss of a job. In the case of unemployment, perceiving the threat as shared and collaborating to manage the threat by pooling efforts to locate potential jobs and seek other monetary sources ought to be similarly beneficial.

We do not believe that a communal coping framework is as useful to understand threats that are inherently shared, such as the death of a family member or relationship problems within the dyad. In these cases, it would be normative to appraise the stressor as shared and for couple members to collaborate to manage the stressor. In fact, the absence of communal coping might be especially problematic in this situation. This is not to say that a shared stressor appraisal and collaboration always occur in the context of shared stressors, but it would seem to be more obvious that such a strategy is beneficial when the threat is inherently shared by relationship partners. The question remains as to whether objectively shared stressors vary in the degree of shared appraisals to the extent that individual threats do. A direction for future research is to determine the extent to which the communal coping framework generalizes to shared threats among dyad members.

Communal Coping as a Dynamic Process

The vast majority of research on communal coping is cross-sectional. Even when studied longitudinally, communal coping is often examined at one point in time as a predictor of changes in outcomes over time. We know very little about whether communal coping is an initial response to chronic disease, takes time to develop, or wanes with time. Changes in communal coping over the course of chronic disease may depend on the nature of the disease. Disease-related events, such as disease onset, disease flare-ups, or disease progression could all spur changes in communal coping.

It is also not clear whether the outcomes of communal coping influence the communal coping process. Note that we do not depict a feedback loop from adjustment to communal coping. To the extent that communal coping outcomes are successful—that is, psychological, behavioral, and physical adjustment is improved—communal coping efforts should be reinforced but not necessarily enhanced. More importantly, poor outcomes in the absence of communal coping are not necessarily likely to influence levels of communal coping. That is, patients and partners who appraise the illness as an individual issue—even if poor outcomes result—would not necessarily respond to poor outcomes by engaging in more or less communal coping. They may choose to engage in alternative independent coping strategies, but these strategies would not necessarily supplant communal coping. Future longitudinal research should examine how communal coping evolves over the course of chronic illness, identify illness-related events that are linked to communal coping, and examine whether adjustment outcomes are linked to subsequent communal coping efforts.

Implications for Intervention

Intervention research for people with chronic illness or chronic conditions has already shown that dyadic-level interventions are superior to patient-based interventions (see Martire, Schulz, Helgeson, Small, & Saghafi, 2010, for a review). Some couple-level interventions target patient–spouse interactions. For example, a couple-oriented intervention for patients who had osteoarthritis was aimed at patient–spouse communication and found benefits in enhancing supportive interactions and reducing unsupportive interactions (Martire et al., 2008). Another intervention sought to increase joint coping in a cohort of women with early stage breast or gynecological cancer (Scott, Halford, & Ward, 2004). Couples were taught more effective forms of stress communication, such as empathic listening after disclosure, and practiced monitoring the impact of their support attempts to determine the optimal way to help their partner, with the ultimate goal of improving patient adjustment. Results showed intervention couples showed higher levels of supportive communication, reduced psychological distress, and lower coping efforts over time compared with either a medical information education or patient coping only conditions.

The Couples Coping Enhancement Training is an intervention based on Bodenmann's concept of dyadic coping and is designed to help couples offer more effective support to each other, consider joint actions to address the problem, and create a sense of solidarity in an attempt to increase the couples' dyadic coping abilities (Bodenmann & Shantinath, 2004; Widmer, Cina, Charvoz, Shantinath, & Bodenmann, 2005). This intervention has been shown to reduce marital distress and increase marital satisfaction (Bodenmann & Shantinath, 2004; Widmer et al., 2005), but has only been applied to the situation in which the stressor is shared (i.e., marital distress) and is not directed at couples in which one person has a chronic illness.

These couple-level interventions aimed at chronic illness would benefit from adopting a communal coping perspective. For example, an intervention directed at smoking cessation in couples aimed to enhance communal coping by having couples recollect past successful joint coping efforts and framing the therapy as beneficial for the couple (Rohrbaugh et al., 2012). Increases in we-talk over the course of the intervention by both patients and spouses predicted cessation. Future intervention research ought to consider manipulating shared illness appraisals by helping participants take mutual responsibility for managing a chronic illness and encouraging collaboration.

Conclusion

In sum, we have elaborated on a theory of communal coping first articulated nearly 20 years ago (Lyons et al., 1998). We retained the two major components of the definition of communal coping—shared illness appraisal and collaboration—and then articulated a process of how they are related. We suggest that shared illness appraisals lead to collaboration and a set of support interactions that can be construed as collaboration in the context of shared illness appraisals. We provided a testable model that describes both antecedents of communal coping as well as processes by which communal coping would be linked to psychological adjustment in patients and partners and behavioral and physical adjustment in patients. We provided evidence for the theory from our own work in the area as well as from researchers who have conducted work on constructs related to either shared illness appraisal or collaboration, arguing that optimal outcomes will result from the synergy between illness appraisal and collaboration. We provided descriptions of several ways in which we have measured communal coping that combines shared appraisal with collaboration, hoping to inspire future work in this area. We urge future researchers to refine and develop novel measures of communal coping, examine conditions under which communal coping is more and less beneficial (i.e., moderators), describe how communal coping changes over the course of chronic disease, and test mechanisms by which communal coping influences health that includes the development of psychosocial interventions. We offer this model of communal coping both as a synthesis of the existing empirical research and as a springboard for future research on couples coping with chronic illness.

Author's note

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Notes

1. To test the hypothesis that support might be reframed as collaboration in the context of shared illness appraisal, we examined whether shared illness appraisal moderated the link of support to collaboration in the context of 123 couples in which one person had type 2 diabetes. The support by appraisal interaction was significant ($B = -.17$, $p < .05$), and showed that support was more likely to be linked to collaboration in the context of a shared illness appraisal. Admittedly, we were a bit surprised to be able to obtain this interaction given the fact that appraisal and collaboration are moderately linked. We believe a better test of this argument would be to randomly assign people to view a problem as shared versus individual and then rate a series of supportive interactions (e.g., person prepares a meal, person provides advice) in terms of collaboration. We predict that in the context of a shared appraisal, supportive interactions would be viewed more collaboratively (i.e., dyad is working together on problem).
2. To address this issue, we conducted a study of 68 dating couples in which we examined we-language across three contexts: (a) open-ended question in which the person was asked to describe himself or herself, (b) open-ended question in which the person was asked to describe his or her relationship with the romantic partner, and (c) open-ended question in which the person was asked to describe how he or she coped with a recent stressor that did not involve the partner. We-language across the three contexts were not correlated. Future research in the context of chronic illness, however, should more fully address this issue.
3. Because we had measures of avoidant and anxious attachment available in our study of 70 couples in which one person was recently diagnosed with type 2 diabetes, we examined whether attachment style interacted with our observed measure of communal coping to predict patient outcomes. The interaction between observed communal coping and avoidant attachment was significant for relationship satisfaction (beta = $-.38$, $p < .01$) and psychological distress (beta = $.36$, $p < .01$) and was marginally significant for self-efficacy (beta = $-.25$, $p = .06$) and self-care behavior (beta = $-.23$, $p = .08$). In all cases, benefits of communal coping were only observed for individuals who were low on avoidant attachment. Anxious attachment did not interact with observed communal coping to predict outcomes.

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