

4 Intimate Relations, Subjective Well-Being, and Health Behavior

Part II

Interpersonal Influences

4

Intimate Relations, Subjective Well-Being, and Health Behavior

Insights From a Dyadic Perspective

Chloe O. Huelsnitz, Alexander J. Rothman, and Jeffrey A. Simpson

How Do Individuals Influence Their Partner's Health Behavior? Insights From a Dyadic Perspective

Imagine a couple, Adam and Maggie, who are involved in a highly satisfying, committed relationship. Although Adam and Maggie had different beliefs and behaviors regarding their own health at the start of their relationship, after several years together, many of their beliefs and behaviors have converged. Adam's and Maggie's overall health and well-being is now better than it was when they first met. According to a growing body of research (e.g., [Robles, Slatcher, Trombello, & McGinn, 2014](#)), Adam and Maggie's story is not atypical. However, despite the overarching finding that better relationships are associated with better well-being and health outcomes in partners across time, we still do not really understand *how* relationships promote better health and well-being. How do Maggie and Adam affect each other over time in ways that result in better outcomes for each of them?

Most theorists agree that interpersonal relationships can and do affect general well-being (e.g., [Diener & Chan, 2011](#); [Ryan & Deci, 2001](#)). General well-being, however, is affected by a wide array of different outcomes. Some researchers, for instance, have focused on subjective

4 Intimate Relations, Subjective Well-Being, and Health Behavior

well-being (SWB; also known as hedonic well-being; [Diener, 1984](#)), which is assessed by measures of general happiness, life satisfaction, the presence of positive affect, and/or the absence of negative affect ([Diener & Chan, 2011](#)). Other researchers have examined psychological well-being (PWB; [Ryff & Singer, 1998, 2000](#)), which is tapped by measures such as self-acceptance, positive relationships with others, autonomy, purpose, self-efficacy, and personal growth ([Ryff, 1989](#)). Many investigators assess both subjective and psychological well-being when trying to estimate an individual's general well-being (e.g., [Kamp Dush & Amato, 2003](#); [Frouls, Helms, & Buehler, 2007](#)).

Even though physical health is often not formally mentioned in definitions of psychological or subjective well-being, a growing number of researchers have also assessed general well-being using measures of physical health (e.g., [Karademas & Giannousi, 2013](#)). In fact, there is mounting evidence that health outcomes may be both a cause and a consequence of general well-being. [Boehm and Kubzansky \(2012\)](#), for example, have found that positive psychological well-being protects people from cardiovascular disease, independent of traditional risk factors such as high blood pressure or high inflammation. It is likely the case that there are bi-directional links between well-being and physical health, such that physical health status can also predict well-being. Given that sickness is often associated with discomfort or pain, having health problems may lead individuals to experience greater negative affect and lower self-efficacy ([Ryan & Deci, 2001](#)).

Over the past few decades, a sizable body of research has confirmed that individuals who have higher-quality relationships with their friends, family, and romantic partners typically report higher levels of well-being ([Horwitz, White, & Howell-White, 1996](#)); live longer ([Holt-Lunstad, Smith, & Layton, 2010](#)); have fewer health problems ([Burman & Margolin, 1992](#)); and

4 Intimate Relations, Subjective Well-Being, and Health Behavior

have better functioning immune systems (e.g., [Cohen, Doyle, Skoner, Rabin, & Gwaltney, 1997](#); [Lutendorf et al., 2008](#)). Among the different relationships that individuals have, romantic relationships are unique in terms of the potential impact they can exert on both dyad members spanning very long periods of time ([Kelley et al., 1983](#)). Consistent with this claim, married people report having higher well-being over time (e.g., [Gove, Hughes, & Style, 1983](#); [Kamp Dush & Amato, 2005](#); [Lee, Seccombe, & Shehan, 1991](#); Waite, 1995) and experience significantly lower mortality rates compared to unmarried men and women as a group ([Rendall, Weden, Favreault, & Waldron, 2011](#)).

The benefits of close relationships on health and well-being, however, are not attributable to marital status per se ([Holt-Lunstad, Birmingham, & Jones, 2008](#); [Kamp Dush & Amato, 2005](#)). Rather, it is the satisfaction, partner responsiveness, commitment, and support derived from involvement in high-quality romantic relationships that most strongly predict better well-being and health outcomes. Increases in marital quality across time are associated with both decreases in physical illness ([Wickrama, Lorenz, Conger, & Elder, 1997](#)) and increases in well-being ([Proulx et al., 2007](#)). Moreover, marital strain accelerates the decline in self-rated health that typically occurs as people age ([Umberson, Williams, Powers, Liu, & Needham, 2006](#)). In a recent meta-analysis of 126 studies involving 72,000 individuals, [Robles and colleagues \(2014\)](#) found that better marital quality also forecasts lower risk of mortality. Thus, merely being in a romantic relationship is not what drives better health and well-being outcomes; it is being in a *high-quality* romantic relationship that is most beneficial.

Given the reciprocal relation between well-being and health, close relationships—especially their quality—could play a key role in helping us better understand how to improve people’s overall well-being via better health outcomes. We already know that close relationships

Commented [AuQ1]: Reference missing from sources list; please provide complete reference information.

4 Intimate Relations, Subjective Well-Being, and Health Behavior

and the actions of each partner are associated with markers of general well-being, but we know less about how they affect health outcomes in particular. As several recent reviews have confirmed (e.g., [Martire, Schulz, Helgeson, Small, & Saghafi, 2010](#); [Pietromonaco, Uchino, & Schetter, 2013](#)), most prior research examining romantic relationships and health has measured the beliefs, behaviors, and outcomes of just one person in a relationship. Fortunately, researchers are beginning to adopt a dyadic approach (e.g., [Howland et al., 2016](#)), taking into account the characteristics of both dyad members to isolate the effects that partners might have on an individual's (i.e., an actor's) health-relevant beliefs, behaviors, and outcomes.

The aims of the current chapter, therefore, are threefold: (1) to review prior *dyadic research* that has examined the processes through which romantic partners and relationships affect physical health outcomes; (2) to more carefully delineate how individuals in a romantic relationship affect each other's health behavior, which in turn may affect their health outcomes; and (3) to examine the personal, relational, and situational factors that might affect the way in which relationship partners affect each other's health-relevant behavior.

Dyadic Models of Romantic Relationships and Health

In order to capture the effect of dyadic processes on an individual's health outcomes, research must be designed and analyzed in a way that incorporates the characteristics of both the individual (i.e., the actor) and his/her partner (i.e., the partner) on the actor's health outcomes. Early research on romantic relationships and health examined associations from only the actor's perspective (i.e., "What does Adam think of Maggie and his relationship with her?"). Recently, some investigators have developed dyadic models of health, which consider not only the actor's perspective, but the partner's perspective as well (e.g., [Lewis, Gladstone, Schmal, & Darbes,](#)

Commented [w2]: AU: The reference list has "Pietromonaco, 2014" not "2013" as cited here. Please indicate correct year for consistency throughout, or provide complete source information for "Pietromonaco, 2013".

4 Intimate Relations, Subjective Well-Being, and Health Behavior

2006; Pietromonaco et al., 2013). Unlike in studies that assess differences between and within individuals, general dyadic models, such as the Actor-Partner Interdependence Model (APIM; Kenny, Kashy, & Cook, 2006), assess differences between and within couples while accounting for the nonindependence in actor and partner responses. Dyadic models allow researchers to test when an individual's behavior is guided by his or her *own* beliefs and when an individual's behavior is affected by his or her *partner's* beliefs. Figure 4.1 depicts a general dyadic model indicating how characteristics of the actor (e.g., Adam) and his partner (e.g., Maggie) might affect each other's health-relevant outcomes. *Health* is defined as morbidity (the incidence and frequency of illness and disease) and mortality (the length of lifespan and cause of death). In addition, characteristics of the relationship in which the actor and partner are involved, such as its length or level of satisfaction, may affect each person's health-relevant outcomes.

[Insert Figure 4.1 Here]

Figure 4.1 Dyadic Model Depicting the Mutual Influence Between the Actor, Relationship, and Partner on the Actor's and Partner's Health

Why is it important to model the unique effect of the partner (or the relationship) in dyadic models of health? If only the characteristics of the actor are considered in the link leading to the actor's health, such associations may contain variance that actually is associated with the partner or the relationship. For example, if only Adam's perceptions are measured and he perceives that Maggie has no effect on his health (even if she does), it may appear as though Adam's beliefs about his health are the sole predictors of his health outcomes. A dyadic approach enables researchers to address this issue and examine the extent to which Maggie affects Adam's health, statistically controlling for Adam's own effect on his health.

Commented [w3]: AU: The reference list has "Pietromonaco, 2014" not "2013" as cited here. Please indicate correct year for consistency throughout, or provide complete source information for "Pietromonaco, 2013".

Commented [AuQ4]: Please note that the publisher would like captions to match headings in terms of how they are capitalized, ok?

4 Intimate Relations, Subjective Well-Being, and Health Behavior

Some research has examined associations between the actor, partner, and relationship on the actor and partner's health dyadically, usually without testing for or assuming the processes underlying these associations. In other words, although some research has documented that partners do affect an actor's health, research has not identified the processes through which this occurs. The dyadic effects shown in [Figure 4.1](#) suggest the potential impact of the relationship and the partner on the actor's health. Note that each person in the dyad is both an actor and a partner; "actor" denotes the individual whose outcomes are being examined, whereas "partner" denotes the individual whose effect is being examined. Thus, when examining the effect of Maggie on Adam's health, Maggie is the partner and Adam is the actor. Alternatively, when examining the effect of Adam on Maggie's health, Maggie is the actor and Adam is the partner. In the following sections, we review research on the effect of the partner on the actor's health and the effect of the relationship on the actor's health.

Partner Characteristics → Actor Health

To date, research testing the pathways shown in [Figure 4.1](#) has focused on whether psychological characteristics of the partner (e.g., his/her personality traits) predict the actor's physical health (e.g., reports of health problems). The majority of these studies involve couples in which one person has been diagnosed with a chronic illness or health condition and the other person is a caregiver or potential source of support. For example, among women undergoing treatment for breast cancer, their romantic partner's level of anxiety predicts women's degree of physical fatigue ([Segrin, Badger, Dorros, Meek, & Lopez, 2007](#)). Research conducted with other diagnosed partner/undiagnosed partner dyads has found that aspects of well-being, such as the partner's depression ([Chung, Moser, Lennie, & Rayens, 2009](#); [Dorros, Card, Segrin, & Badger](#)

Commented [w5]: AU: This author name has been edited to match the reference list. Please confirm spelling is correct.

4 Intimate Relations, Subjective Well-Being, and Health Behavior

2010); psychological distress (Kim et al., 2008); and perceived stigma of the health condition (Liu, Xu, Lin, Shi, & Chen, 2013) predict poorer reports of physical quality of life in the actor.

In contrast, actors report better physical health if they have a partner who is confident s/he can help the actor manage the health condition (Vellone et al., 2013), or is higher in spirituality (Kim et al., 2011), conscientiousness (Roberts, Smith, Jackson, & Edmonds, 2009), or optimism (Kim, Chopik, & Smith, 2014). Although these studies provide evidence that the partner affects the actor's health outcomes, they do not examine actor-level processes that explicate *how* the partner affects the actor's health, which we address in more detail below.

Relationship → Actor Health

To what extent do features of the relationship predict an actor's health outcomes? In dyadic models, relationship predictors incorporate both the actor's and the partner's responses on relationship-relevant variables, which can be objective or subjective. For example, marital status and relationship length are objective relationship-relevant variables because their values are the same, regardless of whether the actor or partner does the reporting. Since these constructs are objective aspects of the relationship, the observed associations between them and health outcomes (e.g., the association between marital status and health; Rendall et al., 2011) ought to be the same in both dyadic and non-dyadic research.

However, dyadic models should provide unique insights into the effects of subjective, emergent relationship variables, derived from perceptions of the actor and/or the partner. For example, Barr and Simons (2014) assessed the actor's perception of the partner's hostility and the partner's perception of his/her own hostility and found that their averaged hostility score predicted poorer self-rated health for both individuals. They also measured the actor's

Commented [w6]: AU: The reference list has "Vellone et al., 2014" not "2013" as cited here. Please indicate correct year for consistency throughout, or provide complete source information for "Vellone et al., 2013".

Commented [w7]: AU: The reference list has "Kim et al., 2008" and "Kim et al., 2014" not "2011" as cited here. Please indicate correct year for consistency throughout, or provide complete source information for "Kim et al., 2011".

4 Intimate Relations, Subjective Well-Being, and Health Behavior

relationship satisfaction and the partner's relationship satisfaction and found that the averaged score predicted better physical health.

Researchers have also used the extent of agreement or disagreement between the actor's and partner's responses to determine whether differences between actor and partner perceptions predict health outcomes. For example, dissimilarity in psychological stress between cancer survivors and their spouses predicts the spouses' (but not the cancer survivor's) quality of physical health (Kim et al., 2008). Merz and colleagues (2011) found that differences between actor and partner perceptions of how much the actor was affected by his/her symptoms of prostate cancer predicted lower physical quality of life in actors (i.e., the cancer patients).

Processes Underlying the Effects of Romantic Relationships on Health

In light of the fact that many romantic relationships last for long periods of time and romantic partners frequently live together, romantic partners have the capacity to exert considerable impact on one another's health outcomes. Consistent with this logic, married couples show concordance across a variety of biological, psychological, and behavioral outcomes, including blood pressure (Al-Kandari, Crews, & Poirier, 2002); cholesterol (Barrett-Connor, Suarez, & Criqui, 1982); depression (e.g., Siegel, Bradley, Gallo, & Kasl, 2004); eating patterns (Bove, Sobal, & Rauschenbach, 2003); alcohol consumption (Graham & Braun, 1999; Stimpson, Masel, Rudkin, & Peek, 2006); and smoking behavior (Stimpson et al., 2006). This concordance is not completely explained by the initial similarities that attract individuals to one another (i.e., assortative mating), nor by shared environments (see Meyler, Stimpson, & Peek, 2007, for a

4 Intimate Relations, Subjective Well-Being, and Health Behavior

review of health concordance within couples). This evidence suggests that some form of influence must be occurring between relationship partners.

Health researchers have proposed three distinct routes through which partners can affect an actor's health outcomes: (1) biological processes (e.g., inducing changes in the actor's hormonal profile); (2) psychological processes (e.g., inducing changes in the actor's attitudes, beliefs, and/or feelings); and (3) behavioral processes (e.g., inducing changes in the actor's health behaviors) (Kiecolt-Glaser & Newton, 2001; Pietromonaco, Uchino, & Schetter, 2014; Slatcher & Selçuk, 2017). Figure 4.2 illustrates how the actor, relationship, and partner might affect the actor's health outcomes via the actor's biological, psychological, and behavioral processes. To date, research has focused predominantly on how characteristics of the actor lead to biological, psychological, and behavioral processes within the actor, which in turn affect the actor's health (Umberson & Montez, 2010). However, there is a growing literature on how characteristics of the relationship and the partner may also affect each of these processes enroute to predicting the actor's health outcomes.

Biological processes, which include physiological variables, are known to predict immediate and/or long-term health outcomes, such as those implicated in allostatic and restorative processes (see Robles et al., 2014, for a detailed review of biological processes linking relationships and health). *Psychological processes* include affective processes, social-cognitive processes (e.g., appraisal), and attitudes/beliefs. *Behavioral processes* involve behavioral choices and habits that may affect health outcomes. Such behaviors can be health promoting, such as eating a balanced diet or engaging in physical activity, or health-compromising, such as smoking.

Commented [w8]: AU: Second author name has been edited to match the reference list. Please confirm spelling is correct.

Commented [w9]: AU: The reference list has "Slatcher & Selçuk, 2016" not "2017" as cited here. Please indicate correct year for consistency throughout, or provide complete source information for "Slatcher & Selçuk, 2017".

4 Intimate Relations, Subjective Well-Being, and Health Behavior

In [Figure 4.2](#), the double-sided arrows represent mutual effects between the actor, partner, and relationship, as well as between actor biological, psychological, and behavioral processes. Although the partner's health does not appear in the model, it is assumed that the partner, relationship, and actor also affect the partner's health via the same mechanisms.

In the next two sections, we briefly review research showing that characteristics of the partner and/or relationship can affect the actor's biological and psychological processes. However, because behavioral processes are an understudied pathway in the link between relationships and health ([Robles et al., 2014](#)), our primary focus will be to delineate how characteristics of the partner and relationship can affect the actor's behavioral processes. In doing so, we not only review the empirical literature regarding this pathway, but also identify opportunities for additional empirical and theoretical work.

[Insert Figure 4.2 Here]

Figure 4.2 A Model Showing How the Actor, Relationship, and Partner Affect the Actor's Health Through Biological, Psychological, and Behavioral Processes

Actor Biological Processes

Of the three processes featured in [Figure 4.2](#), biological processes have received the most empirical attention to date (see [Robles & Kiecolt-Glaser, 2003](#); [Robles et al., 2014](#); [Kiecolt-Glaser, Gouin, & Hantsoo, 2010](#)). Within this domain, research has focused on: (1) allostatic processes, which are "acute changes in stress-related hormones and immune measures" ([Robles et al., 2014](#), p. 4) that are activated by environmental challenges, and (2) restorative processes, which return the individual back to his/her original state before facing further environmental

4 Intimate Relations, Subjective Well-Being, and Health Behavior

challenges (Robles & Carroll, 2011). Over time, the repeated activation of allostatic processes, such as cardiovascular reactivity, can erode multiple biological systems (Robles & Carroll, 2011) that trigger long-term health problems (Robles & Kiecolt-Glaser, 2003). Restorative processes, such as sleep and wound healing, return the individual to homeostasis once environmental challenges have ceased and, thus, are complementary to allostatic processes (Robles & Carroll, 2011).

Features of romantic relationships can affect both allostatic and restorative processes. For example, marital quality is associated with lower cardiovascular reactivity during relationship conflict, lower cortisol reactivity during couple interactions, and better immune system functioning, all of which are allostatic processes associated with the long-term quality of physical health (see Robles et al., 2014). Moreover, couples that display greater hostility during their interactions experience slower wound healing and higher inflammation (Kiecolt-Glaser et al., 2005). Slower wound healing prolongs the allostatic processes that combat infection and impedes an individual's return to homeostasis (Robles & Carroll, 2011; Singer & Clark, 1999), and greater inflammation predicts earlier death in older adults (Ershler & Keller, 2000; Kiecolt-Glaser et al., 2010).

Some research indicates that certain characteristics of the partner are also related to allostatic and restorative processes in the actor. For example, individuals who have insecurely attached romantic partners show increased HPA reactivity (an allostatic process) in response to relationship conflict compared to those who have securely attached partners (Powers, Pietromonaco, Gunlicks, & Sayer, 2006). Moreover, individuals' perceptions of their partners, such as how responsive they perceive their partners to be, predict restorative processes, such as the quality of sleep (e.g., Selcuk, Stanton, Slatcher, & Ong, 2016).

Commented [AuQ10]: Will readers be familiar with this acronym, or could we spell it out here? If the latter, what does it stand for?

Commented [w11]: AU: The reference list has "Selcuk, Stanton, Slatcher, & Ong, 2017" not "2016" as cited here. Please indicate correct year for consistency throughout, or provide complete source information for "Selcuk, Stanton, Slatcher, & Ong, 2016".

4 Intimate Relations, Subjective Well-Being, and Health Behavior

In sum, although research has not tested all of the biological processes linking actor, partner, and relationship characteristics to actor health outcomes, the strong connections between actor/partner/relationship characteristics and allostatic and restorative processes and between these processes and health indicate that this may be a central route through which relationship partners affect each other's health outcomes.

Actor Psychological Processes

Psychological processes have also been hypothesized to mediate the effects of romantic relationships on health. Such processes encompass a wide array of variables, such as social-cognitive processes, affective processes, and indicators of psychopathology and mental health (Pietromonaco et al., 2014; Robles et al., 2014; Uchino, 2006). Most prior research has focused on mental health (Robles et al., 2014). Given that depression and other mental health problems predict various diseases (Prince et al., 2007), these psychological characteristics most likely serve as key intervening processes that connect the effects of partners and relationships with actor health outcomes. For example, individuals whose partners are hostile or disagreeable are more likely to report depressive symptoms (cf. Marshall, Simpson, & Rholes, 2015), which may lead them to engage in unhealthy behaviors and have poorer health outcomes over time. In addition, psychological processes are related to biological processes, such as immune functioning (Kiecolt-Glaser, McGuire, Robles, & Glaser, 2002). The bi-directional arrows between psychological processes and behavioral processes and between psychological processes and biological processes shown in Figure 4.2 denote these interrelationships.

Research has revealed that, among couples in which the actor is undergoing cardiac rehabilitation, having a partner who engages in more health-related supportive behaviors (e.g.,

4 Intimate Relations, Subjective Well-Being, and Health Behavior

listening to the spouse's concerns about protecting his/her health, encouraging the spouse to make healthy choices) predicts improvements in the actor's mental health (Franks et al., 2006). Conversely, having a partner who engages in more controlling behaviors (e.g., reminding the spouse to take care of his/her health) predicts decreases in the actor's mental health. For dyads in which the actor is diagnosed with a health condition, the partner's perceptions of the controllability of the actor's health condition predicts increases in the actor's depressive symptoms (Karademas & Giannousi, 2015). For dyads in which the actor is a caregiver for a sick partner, the frequency of the partner's illness symptoms (Ayotte, Yang, & Jones, 2010) and deteriorations in the partner's health (Pruchno, Wilson-Genderson, & Cartwright, 2009) both predict increases in the actor's depressive symptoms.

Another way in which the partner and relationship may affect the actor's health is through affective and attributional processes. Beyond depression and other mental health symptoms, affective and attributional processes mediate the association between relationship variables and health (Robles et al., 2014). For example, Laurent and Powers (2006) found that individuals who blame their partners for their negative behaviors during a stressful interaction have higher cortisol levels (for men) and slower rates of cortisol recovery (for women). In addition, couples that are more distressed exhibit more negative affect during interactions with each other (Heyman, 2001). Negative affect, in turn, is related to biological processes such as greater cardiovascular reactivity, which has deleterious consequences for long-term health (Robles & Kiecolt-Glaser, 2003).

The partner and relationship may also impact the actor's health through changes in the actor's thoughts and feelings regarding certain health-relevant behaviors. Traditional models of health behavior have identified a broad array of psychological states that inform and guide

Commented [AuQ12]: Reference missing from sources list; please provide complete reference information.

4 Intimate Relations, Subjective Well-Being, and Health Behavior

people's behavioral decisions (see [Conner & Norman, 2015](#); [Rothman & Salovey, 2007](#); [Sheeran, Klein, & Rothman, 2017](#)). For example, the Theory of Planned Behavior (TPB; [Ajzen, 1988](#)) posits that the actor's attitudes (i.e., his/her positivity about a behavior), subjective norms (i.e., perceived social pressures regarding a behavior), and perceived behavioral control (i.e., one's perceived ability to successfully engage in a behavior) predict the actor's intentions, which subsequently predict his/her behavior. Health research examining the effect of attitude, norms, and self-efficacy constructs has found that these psychological characteristics reliably predict an array of health behaviors, although some constructs are stronger predictors than others ([McEachan et al., 2016](#); [Sheeran et al., 2016](#)).

When conceptualized within an interpersonal, dyadic approach, the psychological states identified in models such as the TPB may affect not only one's own intentions and behavior, but also the intentions and behavior of one's partner. For example, a partner's attitudes, subjective norms, and perceived behavioral control regarding his/her *own* eating might predict the actor's behavioral intentions and/or behavior. Testing this premise, [Howland and colleagues \(2016\)](#) examined the relative influence of both actor and partner beliefs on intentions to exercise.

Above and beyond the actor's attitudes, norms, and perceived behavioral control, they found that the *partner's* perceived behavioral control of his/her own exercise predicted the actor's exercise intentions. This finding illustrates the potential value of including the partner's beliefs when modeling the actor's beliefs and behaviors. However, the precise manner in which the partner's beliefs affect the actor remains unclear. It could be that the partner's beliefs influence the actor through the partner's own exercise behaviors or through the partner's statements or expressions about exercise. We return to this broader issue below.

Commented [w13]: AU: The reference list has "Conner & Norman, 2005" not "2015" as cited here. Please indicate correct year for consistency throughout, or provide complete source information for "Conner & Norman, 2015".

Commented [w14]: AU: The reference list has "Sheeran et al., 2017" not "2016" as cited here. Please indicate correct year for consistency throughout, or provide complete source information for "Sheeran et al., 2016".

Actor Behavioral Processes

Behavioral processes have received less attention than psychological or biological processes in research on relationships and health outcomes (Robles et al., 2014). Nevertheless, the behavioral choices that individuals make on a daily basis should have a substantial effect on their quality of life, general well-being, and long-term health prospects. Indeed, in the United States, chronic diseases are the main cause of death and health behaviors such as tobacco use, poor diet, and physical inactivity represent the most prominent risk factors for chronic diseases (Bauer, Briss, Goodman, & Bowman, 2014). Why and *how* do romantic partners affect each other's health behaviors?

There are several reasons to believe that partners should affect actors' health behavior. One reason is that romantic partners typically share living spaces and social environments that afford the opportunity to engage in healthy or unhealthy behaviors. Romantic partners are likely to share decisions about eating, substance use, sexual practices, and exercise. When they move in together, partners also have the opportunity to form routines regarding sleeping, oral hygiene, cooking, and other joint activities. Following cultural shifts during the past few decades, cohabitation is no longer restricted to marital relationships. According to the National Center for Health Statistics, 48% of women interviewed between 2006 and 2010 reported pre-marital cohabitation with a partner (Copen, Daniels, & Mosher, 2012).

Another reason to anticipate that partners affect actors' health behaviors is romantic partners often are invested in each other's good long-term outcomes. As interdependence increases and "me" becomes "we", partners have a vested interest in the actor's health behaviors because the actor's health outcomes may ultimately affect the partner. In the short term, the

Commented [AuQ15]: Global: For consistency, I revised the text so that the term "well-being" is always hyphenated, and when capitalized both "well" and "being" are capitalized (i.e., "Well-Being" not "Well-being," ok?

Commented [AuQ16]: For consistency, I moved the final or surrounding punctuation mark to fall after the closing quotation mark throughout this chapter, ok?

4 Intimate Relations, Subjective Well-Being, and Health Behavior

actor's unhealthy behaviors could make it more difficult for the partner to pursue his/her own health goals. In the long term, the actor's unhealthy behaviors could result in health problems, meaning that the partner might need to become a caregiver. Romantic partners also care deeply about one another in most cases and often want what is best for each other. Thus, the partner not only has an opportunity to affect the actor via their shared environment, but also the motivation to promote the actor's health and overall well-being by influencing the actor's behaviors.

Even though partners should affect actors' health behaviors, research has not delineated the specific ways in which partners can and do affect or change such behaviors. For example, it is unclear whether partners intentionally try to change the actor's health behavior using specific strategies or tactics, or whether the partner unintentionally affects the actor's health behavior by modeling certain practices through her or his own health behavior. It is also unclear whether the process through which partners affect the actor's behavior rely on initial changes in the actor's beliefs. Given that the health behaviors that individuals in relationships engage in on a daily basis might exert a substantial effect on their long-term health, it is important to understand *how* partners affect actor's behavioral processes.

Dyadic Model of Partner Influence

In order to conceptualize the different ways in which a romantic partner can affect the actor's health behavior, we have developed a dyadic model of partner influence that depicts several distinct pathways (see [Figure 4.3](#)). The model illustrates how the partner's health beliefs with respect to both him/herself and his/her partner (i.e., the actor) might affect measures of the actor's psychological and behavioral processes, which in turn may affect the actor's health

4 Intimate Relations, Subjective Well-Being, and Health Behavior

outcomes. In what follows, we discuss what is currently known about these different pathways. First, we delineate how the partner might influence the actor's psychological processes (i.e., beliefs about his/her health) through enacting influence strategies and/or through the partner's own engagement in certain health behaviors. *Influence strategies* are behaviors enacted by the partner with the intended goal of changing the actor's behavior to be consistent with the partner's beliefs regarding the actor or regarding what the actor should do. Second, we delineate how the partner might influence the actor's behavioral processes (i.e., his/her health behaviors) through enacting influence strategies and/or through the partner's own enactment of certain health behaviors.

[Insert Figure 4.3 Here]

Figure 4.3 A Dyadic Model of Partner Influence Illustrating Distinct Pathways Through Which a Partner's Beliefs Can Influence an Actor's Health Behavior

Partner Influence Through Actor's Psychological Processes

How does the partner affect the actor's psychological processes, such as the actor's beliefs about his/her own health behavior? Returning to Maggie and Adam, Maggie's beliefs about her behavior may predict her own health behavior, which, in turn, might elicit changes in Adam's beliefs about his own behavior (partner beliefs → partner behavior → actor beliefs). Maggie's beliefs about Adam's health could also lead her to engage in strategies designed explicitly to change Adam's beliefs (partner beliefs → partner influence strategies → actor beliefs). In both pathways, Adam's beliefs should then predict his health-relevant behavior.

Partner Beliefs → Partner Behavior → Actor Beliefs

The first route from the partner's health beliefs to the actor's beliefs may occur through the partner's own health behavior. This route has two sub-paths: (1) how partner health beliefs predict the partner's health behavior and (2) how the partner's health behavior predicts the actor's health beliefs.

Partner Beliefs → Partner Behavior

This initial step in the partner influence process is predicated on core assumptions that have guided intrapersonally focused research on health behavior (Conner & Norman, 2015), so we touch on it just briefly. There is abundant evidence that people's health beliefs shape their own health behavior (e.g., McEachan et al., 2016; Sheeran et al., 2016). In a recent meta-analysis of studies examining associations between individuals' beliefs and health intentions and behaviors, McEachan and colleagues (2016) found medium-sized correlations between attitudes and intentions and health behavior and small- to medium-sized correlations between norms and autonomy (a facet of perceived behavioral control) predicting health behavior. Similarly, in another recent meta-analysis of studies that experimentally changed partner beliefs, Sheeran and colleagues (2016) found that experimentally manipulated changes in attitudes, norms, and self-efficacy led to medium-sized changes in intention and small- to medium-sized changes in behavior.

Partner Behavior → Actor Beliefs

There are several ways in which a partner could affect an actor's beliefs about a given health issue. Imagine that Maggie has specific beliefs about her own healthy eating (e.g., "It is

Commented [AuQ17]: For consistency, I've removed the hyphen from phrases involving an adverb ending in -ly, ok?

Commented [w18]: AU: The reference list has "Conner & Norman, 2005" not "2015" as cited here. Please indicate correct year for consistency throughout, or provide complete source information for "Conner & Norman, 2015".

Commented [w19]: AU: The reference list has "Sheeran et al., 2017" not "2016" as cited here. Please indicate correct year for consistency throughout, or provide complete source information for "Sheeran et al., 2016".

Commented [w20]: AU: The reference list has "Sheeran et al., 2017" not "2016" as cited here. Please indicate correct year for consistency throughout, or provide complete source information for "Sheeran et al., 2016".

4 Intimate Relations, Subjective Well-Being, and Health Behavior

important for me to eat healthy foods, and I want to eat healthier”) as well as beliefs about Adam’s healthy eating (e.g., “It is important for Adam to eat healthy foods, and I want Adam to eat healthier”). Maggie’s beliefs about her own healthy eating could motivate her to enact behaviors consistent with those beliefs, such as eating more vegetables at dinnertime and commenting on how delicious they are. Adam may then observe Maggie enjoying vegetables every evening and begin to think more positively about healthy foods.

At least one dyadic study has investigated the role of partner communication with respect to this particular pathway. Manne, Kashy, Weinberg, Boscarino, and Bowen (2012) recruited couples in which both members were non-adherent with certain cancer screening guidelines and assessed their self-perceived risk of colorectal cancer, the perceived benefits and barriers to screening, their screening intentions, and the frequency with which they talked about screening. The partner’s perceived cancer risk predicted him/her discussing cancer screening with the actor more frequently, which in turn predicted increases in the actor’s screening intention. Interestingly, partners who thought more about the implications of their screening behavior for the relationship were also more likely to discuss screening with their spouse. One limitation of this study is that the investigators did not assess the extent to which the partner discussed screening because of his/her beliefs about the spouse. In other words, it is unclear whether the partner discussed screening because of beliefs about his or her own health or because of the partner’s beliefs about his/her *spouse*’s health.

Commented [AuQ21]: Reference missing from sources list; please provide complete reference information.

Partner Beliefs → Partner Influence Strategies → Actor Beliefs

4 Intimate Relations, Subjective Well-Being, and Health Behavior

A second route from the partner's health beliefs to the actor's beliefs may occur through the partner's use of influence strategies. This route is broken down into two sub-paths: (1) how partner health beliefs predict the partner's use of influence strategies and (2) how the partner's influence strategies affect the actor's health beliefs.

Partner Beliefs → Partner Influence Strategies

Maggie's beliefs about Adam's eating could also motivate her to use specific influence strategies designed to change Adam's beliefs about healthy eating. Research has identified several dimensions and categories that reflect the different influence strategies relationship partners can use to influence each other's health behaviors.

To date, most dyadic research has examined social influence at the level of social control and social support (e.g., [Burkert, Knoll, Luszczynska, & Gralla, 2012](#); [Franks et al., 2006](#); [Franks, Wendorf, Gonzalez, & Ketterer, 2008](#); [Hong et al., 2005](#)). *Social control* typically is conceptualized as interpersonal interactions characterized by constraint, regulation, and influence ([Franks et al., 2004](#); [Lewis & Butterfield, 2007](#)). For example, reminding the actor to protect his/her health or trying to influence the actor's healthy choices fall under the umbrella of social control. *Social support*, on the other hand, is conceptualized as the emotional and instrumental assistance that relationship partners give to each other ([Lewis & Rook, 1999](#)). An example is listening to the actor's concerns about his/her health, encouraging the actor to make healthier choices, or taking action to protect the actor's health ([Franks et al., 2004](#)). In general, both social control and social support from relationship partners tends to be beneficial for health outcomes, although these effects are often moderated by the specific influence strategies that partners enact

4 Intimate Relations, Subjective Well-Being, and Health Behavior

to control or support the individual (Craddock, vanDellen, Novak, & Ranby, 2015; Uchino, 2004).

Several influence strategies that involve social control or social support have been studied in romantic relationships. Informed by previous social influence research, Lewis, Butterfield, Darbes, and Johnston-Brooks (2004) identified three dimensions on which these strategies differ: positive—negative, bilateral—unilateral, and direct—indirect (see also Lewis & Butterfield, 2007). *Positive strategies* involve the use of rational logic, modeling, and positive reinforcement (e.g., complimenting the partner). *Negative strategies* involve attempts at inducing negative emotions in the actor by expressing negative emotions (e.g., making the actor feel guilty). *Bilateral strategies* reflect reciprocal actions of “give-and-take” between partners (e.g., bargaining with the actor). *Unilateral strategies* involve one-sided attempts to get the actor to change (e.g., stating how important the behavior change is). *Direct strategies* center on addressing the health behavior straightforwardly (e.g., asking the actor to change the behavior). Finally, *indirect strategies* reflect roundabout attempts to get the actor to change his/her behavior (e.g., hinting about positive behavior change). One example of an indirect strategy is *invisible influence*, which entails support intentionally provided by the partner that is not perceived by the actor (e.g., Bolger, Zuckerman, & Kessler, 2000; Girme, Overall, & Simpson, 2013; Howland & Simpson, 2014). The positive—negative and direct—indirect dimensions are consistent with distinctions made in research on communication in relationships (e.g., Overall, Fletcher, Simpson, & Sibley, 2009), whereas the distinction between bilateral—unilateral strategies is consistent with research on power and relationship satisfaction (Aida & Falbo, 1991).

Partner beliefs do predict the partner’s enactment of specific influence strategies.

Butterfield and Lewis (2002), for instance, found that, when partners are motivated to influence

Commented [AuQ22]: Does this text appear correctly as is, or should these em-dashes (—) be made into hyphens (-)?

4 Intimate Relations, Subjective Well-Being, and Health Behavior

the actor and feel capable of influencing the actor, they are more likely to try to influence the actor using various influence strategies. Specifically, the partner's desire for the actor to change positively predicts greater use of positive, negative, direct, indirect, and unilateral strategies. The partner's perception that change will be difficult positively predicts the use of more negative and indirect strategies. In addition, the more helpless the partner feels when trying to induce change in the actor predicts less frequent use of bilateral strategies and more frequent use of negative ones (Butterfield & Lewis, 2002).

In a study investigating influence in same-sex relationships, Lewis et al. (2006) interviewed each member of the couple about the kinds of health behaviors they try to change in their partner, the influence strategies they use to change their partner's behaviors, and their motivations for enacting certain strategies. The most frequently cited reasons (motives) for enacting influence strategies included family history, age/maturity, being HIV-positive, and relationship quality (e.g., wanting to spend more time together). Although Lewis and colleagues (2006) did not assess whether different motivations predicted the use of *specific* influence strategies, couples in their study were more likely to use positive social control strategies than negative social ones.

Partner Influence Strategies → Actor Beliefs

To date, research has not determined whether the partner's enactment of certain influence strategies predicts changes in the actor's beliefs as investigators have focused on whether influence strategies predict changes in the actor's behavior. However, the partner's use of influence strategies should be a central route through which the partner's health beliefs impact the actor's health beliefs. Research in other relationship domains has confirmed that some

4 Intimate Relations, Subjective Well-Being, and Health Behavior

influence strategies are more effective than others in changing the actor's beliefs (e.g., Overall et al., 2009). For example, direct influence strategies may be more effective than indirect ones because direct strategies involve straightforwardly communicating about the belief. Positive direct influence strategies may be especially effective because, when the partner expresses positive emotions and frames an influence strategy in a positive way, the actor should be less resistant to persuasion (Overall et al., 2009). When a health issue is particularly severe, negative direct influence strategies are more effective over time, although uncomfortable in the short term (Overall et al., 2009). The reason for this delayed benefit is that negative direct strategies often provide information that partners may not enjoy hearing, but need to know in order to eventually change their behavior or view their health differently.

By invoking the relationship, bilateral strategies can also be an effective way to change the actor's health beliefs. Individuals in close romantic relationships experience cognitive interdependence as they include their partner in their own sense of self (Aron, Aron, Tudor, & Nelson, 1991) and perceive themselves less as individuals and more as a unit (Agnew, Van Lange, Rusbuut, & Langston, 1998). When individuals consider the effects of their health behavior on their romantic partners, they may re-evaluate their health beliefs. This process, known as *transformation of motivation*, leads individuals to behave in ways that are best for their partner and their relationship instead of themselves (Agnew et al., 1998). One promising avenue for future research is to determine whether individuals who experience more interdependence are more likely to use bilateral influence strategies and whether bilateral influence strategies are more effective in changing actor beliefs than other kinds of influence strategies.

Partner Influence on Actor's Behavior

4 Intimate Relations, Subjective Well-Being, and Health Behavior

How does the partner affect the actor's behavior? Returning to Maggie and Adam, Maggie's beliefs should predict her own health behavior, which then might evoke changes in Adam's health behavior (partner beliefs → partner behavior → actor behavior). Maggie's beliefs about Adam's health could also motivate her to engage in strategies intended to change Adam's behaviors (partner beliefs → partner influence strategies → actor behaviors). In both pathways, partner health beliefs might affect actor health behavior without necessarily altering actor beliefs.

Partner Beliefs → Partner Behavior → Actor Behavior

The first route from the partner's health beliefs to the actor's behavior is through the partner's behavior. This route contains two sub-paths: (1) how partner health beliefs predict the partner's own health behaviors and (2) how the partner's health behaviors predict the actor's health behaviors. Since we have already discussed how partner health beliefs predict the partner's own health behavior, we focus on the second sub-path.

Partner Behavior → Actor Behavior

There are two ways in which the partner's own health behaviors could affect the actor's health behaviors: (1) modeling the desired health behavior and (2) changing the local environment. To the extent that Maggie's beliefs about healthy eating lead her to engage in healthier eating, her modeling of healthy eating behavior could yield changes in Adam's behavior, regardless of whether that was Maggie's original intent. In a review of research on how modeling affects eating behavior, [Cruwys, Bevelander, and Hermans \(2015\)](#) found that people not only use others' eating as a guide for their own eating, but this behavioral response is motivated partially by

4 Intimate Relations, Subjective Well-Being, and Health Behavior

affiliation goals. Thus, romantic partners may model one another's behavior just because they want to affiliate, without necessarily altering their beliefs about the importance of healthy eating.

Maggie's desire to behave in line with her beliefs about healthy eating could also motivate her to change her immediate environment in ways that support healthier eating. For example, Maggie might keep junk food out of the house, choose restaurants that have healthier options when she and Adam eat out, and pack healthy snacks when the two are traveling together. Adam may thus be more inclined to eat healthier simply because his environment affords the opportunity, not because he has changed his beliefs. All of these behaviors are based on Maggie's beliefs about the importance of her own healthy eating, yet they result in Adam eating more healthfully.

Despite clear evidence that romantic partners are concordant on many health behaviors (Meyler et al., 2007), only a few studies have tested whether concordance is due to the fact that people form relationships with similar others (i.e., assortative mating) or whether partners influence the actor's health beliefs and behaviors via modeling, environmental affordances, or the enactment of influence strategies. Although there is evidence for initial similarities in health behaviors due to assortative mating (e.g., Bove et al., 2003; Jackson, Steptoe, & Wardle, 2015), there is also evidence of behavior change due to the effect of partners. In one longitudinal study, when the partner changed to a healthier behavior, the actor was also more likely to make a positive health behavior change than if the partner did not make a healthy behavior change (Jackson et al., 2015). However, the reasons for the actor's health behavior changes were not assessed in these studies. Additional research needs to determine the extent to which the partner's behavioral modeling versus the use of influence strategies affect concordance rates across different health behaviors enacted by romantic partners.

Partner Beliefs → Influence Strategies → Actor Behavior

The second route from the partner's health beliefs to the actor's health behavior is through the partner's use of influence strategies. This route has two sub-paths: (1) how partner health beliefs predict the partner's use of influence strategies and (2) how the partner's influence strategies predict the actor's health behavior. Since we have already discussed how partner health beliefs predict the partner's use of influence strategies, we will focus on the second sub-path.

Influence Strategies → Actor Behavior

Several studies have tested the impact that partner influence strategies have on the actor's behavior. Prior studies have focused primarily on the effectiveness of different influence strategies in changing actor behavior, and little if any research has examined whether influence strategies also elicit changes in actor's beliefs.

[Franks and colleagues \(2006\)](#) investigated whether the partner's provision of health-related social support and social control predicted health behavior among patients undergoing cardiac rehabilitation. Partner's reports of the amount of social support they gave during or soon after cardiac rehabilitation predicted more health-promoting behaviors by actors **6 months** later. In contrast, partner's reports of their amount of social control predicted decreases in health-promoting behaviors in actors over time.

Social support that is specific to a given health behavior may be especially effective in influencing actors' behavior. To test this premise, [Burkert et al. \(2012\)](#) assessed the role of the partner in predicting pelvic-floor exercises in prostate-cancer patients following radical

Commented [AuQ23]: The publisher prefers that we use numerals for units of measure, including time and ages, so I followed this general rule throughout, ok?

4 Intimate Relations, Subjective Well-Being, and Health Behavior

prostatectomy. They found that partner reports of providing more pelvic-floor exercise-specific support predicted more frequent pelvic-floor exercises by actors. Not surprisingly, partner reports of engaging in more social control negatively predicted actors' pelvic-floor exercise. In addition, [Darbes and Lewis \(2005\)](#) found that partners who received higher levels of HIV-specific social support from each other engaged in less HIV risk behavior, both at baseline and 6 months later.

[Lewis and Butterfield \(2007\)](#) also investigated the effect of social control strategies on health-promoting behaviors. In this study, each spouse identified the health behaviors that she/he was attempting to influence the actor (their mate) to change. Each spouse was then interviewed about the social control situations, his/her own attempts to influence the spouse's behavior, and his/her behavioral reactions to the partner's influence attempts. The partner's use of more frequent positive, direct, and bilateral social control strategies predicted more health-promoting behavioral reactions in the actor (i.e., how much the actor changed his/her behavior in the direction the partner wanted). When partners used these strategies more frequently, actors were more likely to respond to the influence attempt by doing what their spouses wanted or changing their behavior to align it with what their spouses wanted.

Future Research Directions and Considerations

In this chapter, we have enumerated several different ways in which partner beliefs can affect the actor's psychological and behavioral processes linked to the actor's long-term health outcomes, which is one important component contributing to general well-being. Although several sub-paths of the dyadic model of partner influence shown in [Figure 4.3](#) have been investigated, all of

4 Intimate Relations, Subjective Well-Being, and Health Behavior

the pathways need to be tested together to more fully understand how partner beliefs affect actor health outcomes.

To properly test the pathways in the model, investigators need to design studies that: (1) are longitudinal; (2) assess partner and actor reasons for engaging in certain health behaviors and influence strategies; and (3) consider potential moderators within the model, such as features of the actor, the relationship, and the health behavior in question. Partners have many opportunities to affect each other's health beliefs and behavior starting early in the relationship, so sometimes influence effects may have occurred *before* they are measured in studies. For example, Maggie might have affected Adam's eating behavior when they first started living and grocery shopping together. In such cases, one may not detect partner effects because the partner has already changed the actor. Changes in actor's beliefs may also have occurred *after* behavior change. For example, Adam might be engaging in healthier eating without believing that it is important, but, over time, his beliefs might eventually shift following his behavior change (e.g., "I must like healthy foods because I eat them all the time"). Study designs need to differentiate between these two types of effects.

As reviewed in this chapter, several studies have examined sub-paths within the different routes from partner beliefs to actor behavior in the model. However, future research needs to assess the beliefs and behavior of *both* the partner and the actor to fully examine these paths and understand exactly how partners affect actors. For example, Manne and colleagues (2012) found that the partner's perceived cancer risk predicted the degree to which he discussed cancer screening with the actor (his wife). However, because Manne and colleagues did not measure the motivations for discussing cancer screening, we do not know whether men did so because of their beliefs about their own cancer risk, because of their beliefs about the actor's possible cancer

Commented [AuQ24]: Reference missing from sources list; please provide complete reference information.

4 Intimate Relations, Subjective Well-Being, and Health Behavior

risk, or both. To understand whether the partner is actively trying to influence the actor or whether the partner is merely engaging in a specific behavior because of his/her own beliefs, it is essential to understand the motivations and reasons underlying the behavior.

With regard to the specific behavior, it is also important to determine whether and the extent to which the current romantic partner is the sole source of social “influence” on the actor. Are there other social partners that also affect the actor’s health behaviors? The actor’s friends may be especially important to consider for behaviors such as eating (Howland, Hunger, & Mann, 2012). Individuals are more likely to model the eating behavior of people who are similar to them and/or with whom they are trying to affiliate (Cruwys et al., 2015). If so, friends may be more likely to affect an individual’s eating behavior than other social partners do, perhaps including the current romantic partner. Finally, it is also important to emphasize the recursive nature of the associations in the model. For example, the actor’s health ought to influence the partner’s relationship satisfaction (e.g., Zhou et al., 2011), which is likely to feed back into the model as a moderator on the effectiveness of the partner’s influence strategies, and so on. In addition, given the reciprocal associations between partners over time, it also is important to factor in time with respect to the behavior and relationship (e.g., when did the behavior start, when did partner influence begin, when did changes in relationship satisfaction occur over time).

Implications of the Dyadic Model of Partner Influence for Well-Being

In addition to properly testing the paths of the model, it is also important for future research to consider consequences of partner influence for other aspects of well-being, such as self-efficacy and positive affect. For example, research on invisible influence shows that whereas providing

4 Intimate Relations, Subjective Well-Being, and Health Behavior

direct, visible support to the partner can reduce their autonomy and self-efficacy, providing indirect, invisible support can boost self-efficacy (Howland & Simpson, 2010). Thus, some types of influence strategies may be more likely to benefit aspects of well-being beyond physical health. Influence strategies that are able to boost aspects of subjective and psychological well-being may be more effective in promoting lasting change in an individual's health behavior.

Another factor implicated in most paths of the dyadic model of partner influence is motivation. In order for influence to occur, partners must be motivated to either try to influence the actor (partner beliefs → partner influence strategies) or to engage in health behaviors for their own sake (partner beliefs → partner behavior). In addition, actors must be motivated to change their own health behavior in order for the changes to stick. Motivation on both the part of the actor and partner could be intrinsic or extrinsic in nature (Ryan & Deci, 2000). Research shows that intrinsic motivation (engaging in a behavior because of the positive feelings resulting from the behavior itself; Ryan & Deci, 2000) is linked to both well-being and long-term positive health outcomes (Kasser & Ryan, 1996; Ng et al., 2012). Extrinsic rewards generally decrease intrinsic motivation (Deci, Koestner, & Ryan, 1999).

If Maggie is motivated to influence Adam because of the positive feelings she derives from trying to support Adam (i.e., intrinsic motivation); Maggie may be more likely to use influence strategies that are positive (rather than negative); and Maggie also may be more willing to continue trying to support Adam over time. With regard to the actor, if Adam is motivated to engage in the behavior in order to receive praise from Maggie or to avoid criticism from Maggie (i.e., extrinsic motivation), he may be less likely to maintain the health behavior change over time. Ultimately, it is important to consider the effects of dyadic influence on well-being, as different effects of the partner's influence on the actor's self-efficacy or motivation could

Commented [AuQ25]: Reference missing from sources list; please provide complete reference information.

4 Intimate Relations, Subjective Well-Being, and Health Behavior

determine whether the change in health behavior will be fleeting or permanent. This example also illustrates the value of adopting a dyadic perspective, as the motivation of both the partner and actor are important determinants of long-term behavioral change.

Conclusion

Research has established that romantic relationships predict important long-term health and well-being outcomes (Holt-Lunstad et al., 2010; Kiecolt-Glaser & Newton, 2001; Rendall et al., 2011). Building on this foundation, researchers have started to investigate how features of the actor, the partner, and their relationship affect the health of actors via biological, psychological, and behavioral processes (Kiecolt-Glaser et al., 2010; Robles et al., 2014; Uchino, 2006; Uchino, Cacioppo, & Kiecolt-Glaser, 1996). Although research has shown that partners do affect each other's health outcomes, we still need to better understand the *processes* through which partner influence occurs within relationships in order to inform future research on how the partner may be “harnessed” to improve individuals' health and well-being outcomes.

Note

References

- Agnew, C. R., Van Lange, P. A., Rusbult, C. E., & Langston, C. A. (1998). Cognitive interdependence: Commitment and the mental representation of close relationships. *Journal of Personality and Social Psychology, 74*, 939–954.

4 Intimate Relations, Subjective Well-Being, and Health Behavior

- Aida, Y., & Falbo, T. (1991). Relationships between marital satisfaction, resources, and power strategies. *Sex Roles, 24*, 43–56.
- Ajzen, I. (1985). From intentions to actions: A theory of planned behavior. In J. Kuhl & J. Beckmann (Eds.), *Action-control: From cognition to behavior* (pp. 11–39). Heidelberg, Germany: Springer. http://dx.doi.org/10.1007/978-3-642-69746-3_2
- Al-Kandari, Y., Crews, D. E., & Poirier, F. E. (2002). Length of marriage and its effect on spousal concordance in Kuwait. *American Journal of Human Biology, 14*, 1–8. doi: 10.1002/ajhb.1137
- Aron, A., Aron, E. N., Tudor, M., & Nelson, G. (1991). Close relationships as including other in the self. *Journal of Personality and Social Psychology, 60*, 241–253. <http://dx.doi.org/10.1037/0022-3514.60.2.241>
- Ayotte, B. J., Yang, F. M., & Jones, R. N. (2010). Physical health and depression: A dyadic study of chronic health conditions and depressive symptomatology in older adult couples. *Journal of Gerontology: Psychological Sciences, 65B*, 438–448. doi: 10.1093/geronb/gbq033.
- Barr, A. B., & Simons, R. L. (2014). A dyadic analysis of relationships and health: Does couple-level context condition partner effects? *Journal of Family Psychology, 28*, 448–59. <https://doi.org/10.1037/a0037310>
- Barrett-Connor, E., Suarez, L., & Criqui, M. H. (1982). Spouse concordance of plasma cholesterol and triglyceride. *Journal of Chronic Diseases, 35*, 333–340.
- Bauer, U. E., Briss, P. A., Goodman, R. A., & Bowman, B. A. (2014). Prevention of chronic disease in the 21st century: Elimination of the leading preventable causes of premature death and disability in the USA. *The Lancet, 384*, 45–52.

4 Intimate Relations, Subjective Well-Being, and Health Behavior

- Boehm, J. K., & Kubzansky, L. D. (2012). The heart's content: The association between positive psychological well-being and cardiovascular health. *Psychological Bulletin, 138*, 655–691. doi: 10.1037/a0027448
- Bolger, N., Zuckerman, A., & Kessler, R. C. (2000). Invisible support and adjustment to stress. *Journal of Personality and Social Psychology, 79*, 953–961.
- Bove, C. F., Sobal, J., & Rauschenbach, B. S. (2003). Food choices among newly married couples: Convergence, conflict, individualism, and projects. *Appetite, 40*, 25–41.
- Burkert, S., Knoll, N., Luszczynska, A., & Gralla, O. (2012). The interplay of dyadic and individual planning of pelvic-floor exercise in prostate-cancer patients following radical prostatectomy. *Journal of Behavioral Medicine, 35*, 305–317.
<https://doi.org/10.1007/s10865-012-9416-2>
- Burman, B., & Margolin, G. (1992). Analysis of the association between marital relationships and health problems: An interactional perspective. *Psychological Bulletin, 112*, 39–63.
<https://doi.org/10.1037/0033-2909.112.1.39>
- Butterfield, R. M., & Lewis, M. A. (2002). Health-related social influence: A social ecological perspective on tactic use. *Journal of Social and Personal Relationships, 19*, 505–526.
- Chung, M. L., Moser, D. K., Lennie, T. A., & Rayens, M. K. (2009). The effects of depressive symptoms and anxiety on quality of life in patients with heart failure and their spouses: Testing dyadic dynamics using Actor-Partner Interdependence Model. *Journal of Psychosomatic Research, 67*, 39–35. doi: 10.1016/j.jpsychores.2009.01.009
- Cohen, S., Doyle, W. J., Skoner, D. P., Rabin, B. S., & Gwaltney, J. M. (1997). Social ties and susceptibility to the common cold. *Journal of the American Medical Association, 277*, 1940–1944.

4 Intimate Relations, Subjective Well-Being, and Health Behavior

- [Conner, M., & Norman, P. \(2005\). *Predicting and changing health behavior: Research and practice with social cognition models* \(3rd ed.\). Berkshire, England: McGraw-Hill.](#)
- Copen, C. E., Daniels, K., & Mosher, W. D. (2012). First marriages in the United States: Data from the 2006–2010 national survey of family growth. *National Health Statistics Reports, 64*, 1–22.
- Craddock, E., van Dellen, M. R., Novak, S. A., & Ranby, K. W. (2015). Influence in relationships: A meta-analysis on health-related social control. *Basic and Applied Social Psychology, 37*, 118–130. doi: 10.1080/01973533.2015.1011271
- Cruwys, T., Bevelander, K. E., & Hermans, R. C. J. (2015). Social modeling of eating: A review of when and why social influence affects food intake and choice. *Appetite, 86*, 3–18. <http://dx.doi.org/10.1016/j.appet.2014.08.035>
- Darbes, L. A., & Lewis, M. A. (2005). HIV-specific social support predicts less sexual risk behavior in male couples. *Health Psychology, 24*, 617–622. doi: 10.1037/0278-6133.24.6.617
- Deci, E. L., Koestner, R., & Ryan, R. M. (1999). A meta-analytic review of experiments examining the effects of extrinsic rewards on intrinsic motivation. *Psychological Bulletin, 125*, 627–668.
- Diener, E. (1984). Subjective well-being. *Psychological Bulletin, 95*, 542–575.
- Diener, E., & Chan, M. Y. (2011). Happy people live longer: Subjective well-being contributes to health and longevity. *Applied Psychology, 3*, 1–43.
- Dorros, S. M., Card, N. A., Segrin, C., & Badger, T. A. (2010). Interdependence in women with breast cancer and their partners: An inter-individual model of distress. *Journal of Consulting Clinical Psychology, 78*, 121–125. doi: 10.1037/a0017724

4 Intimate Relations, Subjective Well-Being, and Health Behavior

- Ershler, W., & Keller, E. (2000). Age-associated increased interleukin-6 gene expression, late-life diseases, and frailty. *Annual Review of Medicine*, *51*, 245–270.
- Franks, M. M., Stephens, M. A. P., Rook, K. S., Franklin, B. A., Keteyian, S. J., & Artinian, N. T. (2006). Spouses' provision of health-related support and control to patients participating in cardiac rehabilitation. *Journal of Family Psychology*, *20*, 311–318. <https://doi.org/10.1037/0893-3200.20.2.311>
- Franks, M. M., Wendorf, C. A., Gonzalez, R., & Ketterer, M. (2004). Aid and influence: Health-promoting exchanges of older married partners. *Journal of Social and Personal Relationships*, *21*, 431–445. <https://doi.org/10.1177/0265407504044839>
- Girme, Y. U., Overall, N. C., & Simpson, J. A. (2013). When visibility matters. *Personality and Social Psychology Bulletin*, *39*, 1441–1454. <https://doi.org/10.1177/0146167213497802>
- Gove, W. R., Hughes, M., & Style, C. B. (1983). Does marriage have positive effects on the psychological well-being of the individual? *Journal of Health and Social Behavior*, *24*, 122–131.
- Graham, K., & Braun, K. (1999). Concordance of use of alcohol and other substances among older adult couples. *Addictive Behaviors*, *24*, 839–856.
- Holt-Lunstad, J., Birmingham, W., & Jones, B. Q. (2008). Is there something unique about marriage? The relative impact of marital status, relationship quality, and network social support on ambulatory blood pressure and mental health. *Annals of Behavioral Medicine*, *35*, 239–244. <https://doi.org/10.1007/s12160-008-9018-y>
- Holt-Lunstad, J., Smith, T. B., & Layton, J. B. (2010). Social relationships and mortality risk: A meta-analytic review. *PLoS Medicine*, *7*, e1000316. <https://doi.org/10.1371/journal.pmed.1000316>

4 Intimate Relations, Subjective Well-Being, and Health Behavior

- Hong, T., Franks, M., Gonzalez, R., Keteyian, S., Franklin, B., & Artinian, N. (2005). A dyadic investigation of exercise support between cardiac patients and their spouses. *Health Psychology, 24*, 430–434. <https://doi.org/10.1037/0278-6133.24.4.430>
- Horwitz, A. V., White, H. R., & Howell-White, S. (1996). Becoming married and mental health: A longitudinal study of a cohort of young adults. *Journal of Marriage and Family, 58*, 895–907.
- Howland, M., Farrell, A. K., Simpson, J. A., Rothman, A. J., Burns, R. J., Fillo, J., & Wlaschin, J. (2016). Relational effects on physical activity: A dyadic approach to the theory of planned behavior. *Health Psychology, 35*, 733–741. <https://doi.org/10.1037/hea0000334>
- Howland, M., Hunger, J. M., & Mann, T. (2012). Friends don't let friends eat cookies: Effects of restrictive eating norms on consumption among friends. *Appetite, 59*, 505–509.
- Howland, M., & Simpson, J. A. (2010). Getting in under the radar: A dyadic view of invisible support. *Psychological Science, 21*, 1878–1885. <https://doi.org/10.1177/0956797610388817>
- Jackson, S. E., Steptoe, A., & Wardle, J. (2015). The influence of partner's behavior on health behavior change: The English longitudinal study of ageing. *JAMA Internal Medicine, 175*, 385–392.
- Kamp Dush, C. M., & Amato, P. R. (2005). Consequences of relationship status and quality for subjective well-being. *Journal of Social and Personal Relationships, 22*, 607–627.
- Karademas, E. C., & Giannousi, Z. (2013). Representations of control and psychological symptoms in couples dealing with cancer: A dyadic-regulation approach. *Psychology and Health, 28*, 67–83. doi: 10.1080/08870446.2012.713954

4 Intimate Relations, Subjective Well-Being, and Health Behavior

- Kelley, H. H., Berscheid, E., Christensen, A., Harvey, J. H., Huston, T. L., Levinger, G., . . . Peterson, D. R. (1983). Analyzing close relationships. In H. H. Kelley, E. Berscheid, A. Christensen, J. H. Harvey, T. L. Huston, G. Levinger, . . . D. R. Peterson (Eds.), *Close relationships* (pp. 67–92). New York, NY: Freeman.
- Kenny, D. A., Kashy, D. A., & Cook, W. L. (2006). *Dyadic data analysis*. New York, NY: Guilford Press.
- Kiecolt-Glaser, J. K., Gouin, J., & Hantsoo, L. (2010). Close relationships, inflammation, and health. *Neuroscience Biobehavior Review*, *35*, 33–38. doi: 10.1016/j.neubiorev.2009.09.003
- Kiecolt-Glaser, J. K., Loving, T. J., Stowell, J. R., Malarkey, W. B., Lemeshow, S., Dickinson, S. L., & Glaser, R. (2005). Hostile marital interactions, proinflammatory cytokine production, and wound healing. *Archives of General Psychiatry*, *62*, 1377–1384.
- Kiecolt-Glaser, J. K., McGuire, L., Robles, T. F., & Glaser, R. (2002). Psychoneuroimmunology: Psychological influences on immune function and health. *Journal of Consulting and Clinical Psychology*, *70*, 537–547. doi: 10.1037//0022-006X.70.3.537
- Kiecolt-Glaser, J. K., & Newton, T. L. (2001). Marriage and health: His and hers. *Psychological Bulletin*, *127*, 472–503. doi: 10.1037//0033-2909.127.4.472
- Kim, E. S., Chopik, W. J., & Smith, J. (2014). Are people healthier if their partners are more optimistic? The dyadic effect of optimism on health among older adults. *Journal of Psychosomatic Research*, *76*, 447–453. doi: 10.1016/j.jpsychores.2014.03.104.
- Kim, Y., Kashy, D. A., Wellisch, D. K., Spillers, R. L., Kaw, C. K., & Smith, T. G. (2008). Quality of life of couples dealing with cancer: Dyadic and individual adjustment among

4 Intimate Relations, Subjective Well-Being, and Health Behavior

breast and prostate cancer survivors and their spousal caregivers. *Annals of Behavioral Medicine*, 35, 230–238. doi: 10.1007/s12160-008-9026-y

Laurent, H. K., & Powers, S. I. (2006). Social-cognitive predictors of hypothalamic-pituitary-adrenal reactivity to interpersonal conflict in emerging adult couples. *Journal of Social and Personal Relationships*, 23, 703–720. doi: 10.1177/0265407506065991

Lee, G. R., Secombe, K., & Shehan, C. L. (1991). Marital status and personal happiness: An analysis of trend data. *Journal of Marriage and Family*, 53, 839–844.

Lewis, M. A., & Butterfield, R. M. (2007). Social control in marital relationships: Effect of one's partner on health behaviors. *Journal of Applied Social Psychology*, 37, 298–319. <https://doi.org/10.1111/j.0021-9029.2007.00161.x>

Lewis, M. A., Butterfield, R. M., Darbes, L. A., & Johnston-Brooks, C. (2004). The conceptualization and assessment of health-related social control. *Journal of Social and Personal Relationships*, 21, 669–687. <https://doi.org/10.1177/0265407504045893>

Lewis, M. A., Gladstone, E., Schmal, S., & Darbes, L. A. (2006). Health-related social control and relationship interdependence among gay couples. *Health Education Research*, 21, 488–500.

Lewis, M. A., McBride, C. M., Pollak, K. I., Puleo, E., Butterfield, R. M., & Emmons, K. M. (2006). Understanding health behavior change among couples: An interdependence and communal coping approach. *Social Science and Medicine*, 62, 1369–1380. <https://doi.org/10.1016/j.socscimed.2005.08.006>

Lewis, M. A., & Rook, K. S. (1999). Social control in personal relationships: Impact on health behaviors and psychological distress. *Health Psychology*, 18, 63–71. <https://doi.org/10.1037/0278-6133.18.1.63>

4 Intimate Relations, Subjective Well-Being, and Health Behavior

- Liu, H., Xu, Y., Lin, X., Shi, J., & Chen, S. (2013). Associations between perceived HIV stigma and quality of life at the dyadic level: The Actor-Partner Interdependence Model. *PLoS One*, 8, e55680. doi: 10.1371/journal.pone.0055680
- Lutendorf, S. K., Sood, A. K., Anderson, B., McGinn, S., Maiseri, H., Dao, M., . . . Lubaroff, D. M. (2005). Social support, psychological distress, and natural killer cell activity in ovarian cancer. *Journal of Clinical Oncology*, 23, 7105–7113.
- Marshall, E., Simpson, J. A., & Rholes, W. S. (2015). Personality, communication, and depressive symptoms across the transition to parenthood: A dyadic longitudinal investigation. *European Journal of Personality*, 29, 216–234. doi: 10.1002/per.1980
- Martire, L. M., Schulz, R., Helgeson, V. S., Small, B. J., & Saghafi, E. M. (2010). Review and meta-analysis of couple-oriented interventions for chronic illness. *Annals of Behavioral Medicine*, 40, 325–342. <https://doi.org/10.1007/s12160-010-9216-2>
- McEachan, R., Taylor, N., Harrison, R., Lawton, R., Gardner, P., & Conner, M. (2016). Meta-analysis of the reasoned action approach (RAA) to understanding health behaviors. *Annals of Behavioral Medicine*, 50, 592–612. doi: 10.1007/s12160-016-9798-4
- Merz, E. Malcarne, V., Ko, C. M., Sadler, M., Kwack, L., Varni, J. W., & Sadler, G. R. (2011). Dyadic concordance among prostate cancer patients and their partners and health-related quality of life: Does it matter? *Psychological Health*, 26, 651–666. doi: 10.1080/08870441003721251
- Meyler, D., Stimpson, J. P., & Peek, M. K. (2007). Health concordance within couples: A systematic review. *Social Science and Medicine*, 64, 2297–2310. <https://doi.org/10.1016/j.socscimed.2007.02.007>

4 Intimate Relations, Subjective Well-Being, and Health Behavior

- Ng, J., Ntoumanis, N., Thøgersen-Ntoumani, E. C., Deci, E. L., Ryan, R. M., Duda, J. L., & Williams, G. C. (2012). Self-determination theory applied to health contexts: A meta-analysis. *Perspectives on Psychological Science, 7*, 325–340.
- Overall, N. C., Fletcher, G. J., Simpson, J. A., & Sibley, C. G. (2009). Regulating partners in intimate relationships: The costs and benefits of different communication strategies. *Journal of Personality and Social Psychology, 96*, 620–639.
- Pietromonaco, P. R., Uchino, B., & Schetter, C. D. (2014). Attachment theory for health and disease. *Health Psychology, 32*, 499–513. <https://doi.org/10.1037/a0029349>
- Powers, S. I., Pietromonaco, P. R., Gunlicks, M., & Sayer, A. (2006). Dating couples' attachment styles and patterns of cortisol reactivity and recovery in response to a relationship conflict. *Journal of Personality and Social Psychology, 90*, 613–628. <https://doi.org/10.1037/0022-3514.90.4.613>
- Prince, M., Patel, V., Saxena, S., Maj, M., Maselko, J., Phillips, M. R., & Rahman, A. (2007). No health without mental health. *The Lancet, 370*, 859–877.
- Proulx, C. M., Helms, H. M., & Buehler, C. (2007). Marital quality and personal well-being: A meta-analysis. *Journal of Marriage and Family, 69*, 576–593.
- Pruchno, R., Wilson-Genderson, M., & Cartwright, F. (2009). Self-rated health and depressive symptoms in patients with end-stage renal disease and their spouses: A longitudinal dyadic analysis of late-life marriages. *The Journals of Gerontology Series B: Psychological Sciences and Social Sciences, 64B*, 212–221. <https://doi.org/10.1093/geronb/gbp006>

4 Intimate Relations, Subjective Well-Being, and Health Behavior

- Rendall, M. S., Weden, M. M., Favreault, M. M., & Waldron, H. (2011). The protective effect of marriage for survival: A review and update. *Demography*, *48*, 481–506.
<https://doi.org/10.1007/s13524-011-0032-5>
- Roberts, B. W., Smith, J., Jackson, J. J., & Edmonds, G. (2009). Compensatory conscientiousness and health in older couples. *Psychological Science*, *20*, 553–559.
<https://doi.org/10.1111/j.1467-9280.2009.02339.x>
- Robles, T. F., & Carroll, J. E. (2011). Restorative biological processes and health. *Social and Personality Psychology Compass*, *5*, 518–537.
- Robles, T. F., & Kiecolt-Glaser, J. K. (2003). The physiology of marriage: Pathways to health. *Physiology and Behavior*, *79*, 409–416.
- Robles, T. F., Slatcher, R. B., Trombello, J. M., & McGinn, M. M. (2014). Marital quality and health: A meta-analytic review. *Psychological Bulletin*, *140*, 140–187.
- Rothman, A. J., & Salovey, P. (2007). The reciprocal relation between principles and practice: Social psychology and health behavior. In A. W. Kruglanski & E. T. Higgins (Eds.), *Social psychology: Handbook of basic principles* (2nd ed., pp. 826–849). New York, NY: Guilford Press.
- Ryan, R. M., & Deci, E. L. (2000). Self-determination theory and the facilitation of intrinsic motivation, social development, and well-being. *American Psychologist*, *55*, 68–78.
- Ryan, R. M., & Deci, E. L. (2001). On happiness and human potentials: A review of research on hedonic and eudaimonic well-being. *Annual Review of Psychology*, *52*, 141–166.
- Ryff, C. D. (1989). Happiness is everything, or is it? Explorations on the meaning of psychological well-being. *Journal of Personality and Social Psychology*, *57*, 1069–1081.

4 Intimate Relations, Subjective Well-Being, and Health Behavior

Ryff, C. D., & Singer, B. (1998). The contours of positive human health. *Psychological Inquiry*, 9, 1–28.

Ryff, C. D., & Singer, B. (2000). Interpersonal flourishing: A positive health agenda for the new millennium. *Personality and Social Psychology Review*, 4, 30–44.

Segrin, C., Badger, T., Dorros, S. M., Meek, P., & Lopez, A. M. (2007). Interdependent anxiety and psychological distress in women with breast cancer and their partners. *Psychooncology*, 16, 634–643. doi: 10.1002/pon.1111

[Selçuk](#), E., Stanton, S. C., Slatcher, R. B., & Ong, A. D. (2017). Perceived partner responsiveness predicts better sleep quality through lower anxiety. *Social Psychological and Personality Science*, 8, 83–92.

Sheeran, P., Klein, W. M., & Rothman, A. J. (2017). Health behavior change: Moving from observation to intervention. *Annual Review of Psychology*, 68, 573–600.

Siegel, M. J., Bradley, E. H., Gallo, W. T., & Kasl, S. V. (2004). The effect of spousal mental and physical health on husbands' and wives' depressive symptoms among older adults: Longitudinal evidence from the health and retirement survey. *Journal of Aging and Health*, 16, 398–425.

Singer, A. J., & Clark, R. A. F. (1999). Cutaneous wound healing. *New England Journal of Medicine*, 341, 738–746.

[Slatcher](#), R., & Selçuk, E. (2016). A social psychological perspective on the links between close relationships and health. *Current Directions in Psychological Science*, 26, 16–21.
<https://doi.org/10.1177/0963721416667444>

Stimpson, J. P., Masel, M. C., Rudkin, L., & Peek, M. K. (2006). Shared health behaviors among older, Mexican American spouses. *American Journal of Health Behavior*, 30, 495–502.

4 Intimate Relations, Subjective Well-Being, and Health Behavior

Uchino, B. N. (2006). Social support and health: A review of physiological processes potentially underlying links to disease outcomes. *Journal of Behavioral Medicine, 29*, 377–387.

<https://doi.org/10.1007/s10865-006-9056-5>

Uchino, B. N., Cacioppo, J. T., & Kiecolt-Glaser, J. K. (1996). The relationship between social support and physiological processes: A review with emphasis on underlying mechanisms and implications for health. *Psychological Bulletin, 119*, 488–531.

<https://doi.org/10.1037/0033-2909.119.3.488>

Umberson, D., & Montez, J. K. J. (2010). Social relationships and health: A flashpoint for health policy. *Journal of Health and Social Behavior, 51*, 1–16.

<https://doi.org/10.1177/0022146510383501.Social>

Umberson, D., Williams, K., Powers, D. A., Liu, H., & Needham, B. (2006). You make me sick: Marital quality and health over the life course. *Journal of Health and Social Behavior, 47*, 1–6.

Vellone, E., Chung, M. L., Cocchieri, A., Rocco, G., Alvaro, R., & Riegel, B. (2014). Effects of self-care on quality of life in adults with heart failure and their spousal caregivers: Testing dyadic dynamics using the Actor-Partner Interdependence Model. *Journal of Family Nursing, 20*, 120–141. <https://doi.org/10.1177/1074840713510205>

Wickrama, K. A. S., Lorenz, F. O., Conger, R. D., & Elder, G. H. (1997). Marital quality and physical illness: A latent growth curve analysis. *Journal of Marriage and Family, 59*, 143–55.

Zhou, E. S., Kim, Y., Rasheed, M., Benedict, C., Bustillo, N. E., Soloway, M., . . . Penedo, F. J. (2011). Marital satisfaction of advanced prostate cancer survivors and their spousal

4 Intimate Relations, Subjective Well-Being, and Health Behavior

caregivers: The dyadic effects of physical and mental health. *Psychooncology*, 20, 1352–1357. doi: 10.1002/pon.1855.

1 Given that most research reviewed in this chapter measures physical quality of life subjectively, “physical quality of life” refers to subjective measures of physical quality of life unless otherwise noted.