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In Sickness and in Health: Interactions between Romantic Dyads, Power, and Health

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Interactions between Romantic Dyads, Power, and Health

By

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Abstract

The current study applied the Actor-Partner Interdependence Model (Cook & Kenny, 2005) to assess influence in romantic dyads regarding health attitudes and behaviors (exercise, eating), and the moderating effects of gendered power. Associations between dyad similarity scores on health attitudes, health behaviors, and gendered relationship quality was also explored. Forty-five heterosexual romantic couples who were exclusively dating (72% White/Caucasian; age $M = 22.3$ years; relationship length $M = 28.7$ months) completed several questionnaires including: the Relationship Power Inventory – Overall (Farrell et al., 2015), the Perceived Relationship Quality Components Inventory (Fletcher et al., 2000), a modified Exercise Identity Scale (Anderson & Cychosz, 1994), a modified Healthy-Eating Identity Scale (Strachan & Brawley, 2009), and a modified Health Practices Scale (Jackson, 2005). Results showed that female health attitudes predicted female ($p = .006$) and male health behaviors ($p = .043$). Male health attitudes only predicted male health behaviors ($p = .004$), not female health behaviors. Similar results held true for actor and partner pathways between exercise attitudes and behaviors (p's $< .05$). Regarding eating, all female actor and partner effects were nonsignificant, while male eating attitudes only predicted male eating behaviors ($p = .009$). Male power only moderated the female actor effect of health attitudes predicting health behaviors, such that female health attitudes were more predictive when males had lower versus higher power ($p = .008$). Female power only moderated the female partner effect of female exercise attitudes predicting male exercise behaviors, such that female exercise attitudes were more predictive when females had higher versus lower power ($p = .010$). Lastly, dyad similarity scores on health attitudes, health behaviors, and gendered relationship quality were unrelated. Consistent with gender role socialization and gendered power, females had more influence on male partners'

health behaviors. Continued data collection and assessment of key personality constructs is recommended.

Keywords: Romantic Dyads, Power, Health, Attitudes, Behaviors

In Sickness and in Health: Interactions between Romantic Dyads, Power, and Health

Who really wears the pants in the relationship? Psychologists have been concerned with how close relationships influence an individual as well as the various psychological processes involved. Close relationships have chiefly been examined through the lens of power balance and decision-making tactics. In recent literature, there has been a shift away from assessing one individual in a relationship, towards both individuals in the relationship and the relationship itself as key variables. This new approach reveals a dyadic interplay between power, influence strategies and outcomes. Since relationships are part of our daily lives, psychologists must understand the interactions between individuals and the social influences involved. The purpose of the current study was to explore the interplay of power, health attitudes, and health behaviors within romantic dyads. I begin by providing some background on power theories and the shift towards treating the dyad, rather than the individual, as the central unit of analysis. I also provide explanation of how power, gender, and relationship quality and satisfaction are interconnected. Following this, I introduce balance theory and discuss its theoretical framework in constructing relationships as well as the mutual influence on attitudes and behaviors. Next, the relations between health, gender, and relationship quality and satisfaction are expounded upon. Finally, the research questions and associated hypotheses are explained.

Power Theories and Dyads

There have been numerous theoretical approaches regarding power balance, such as social power theory (French & Raven, 1959), resource theory (Blood & Wolfe, 1960), interdependence theory (Thibaut & Kelley, 1959) and the dyadic power theory (Rollins & Bahr, 1976). Each of these theories outline different bases, expressions, and outcomes of power. The power within relationships theory (Huston, 1983), defines power as one partner's ability to

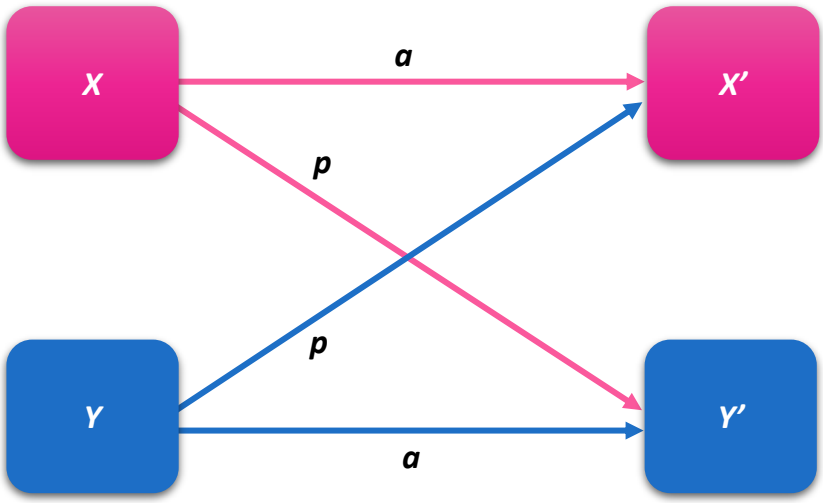
intentionally influence the other partner to facilitate, or at least not impede, his or her desired goals (Huston, 1983). Huston's theory, like many other power theories, acknowledges the dyadic nature of power within close relationships. His theory factors in relationship norms, personality traits, and the social and physical environment of each partner in determining each partner's degree of power. In turn, these aspects affect each partner's source of power, including reward, coercion, legitimacy, referent, expertise, and information. A partner may express his or her power through intentional influence tactics, which allows the more powerful partner to dictate outcomes for both partners.

Besides power theories adopting a dyadic perspective, many other researchers have pushed for a shift away from the individual, applying a dyadic perspective to other theories and analysis models (Cook & Kenny, 2005; Farrell et al., 2015; Karney et al., 2010). In accounting for measures from both romantic partners, a dyadic perspective paints a broader picture of the multidimensionality of close relationships. With two parts creating the whole, new theoretical and analytical models treat each partner's measurements as dependent rather than independent of one another. More specifically, the Actor-Partner Interdependence Model (APIM; Cook & Kenny, 2005) realizes this necessity in treating inherently non-independent observations as the central unit of analysis (see Figure 1). Consistent with interdependence theory (Thibaut & Kelley, 1959), the APIM aims to capture interdependence within the context of interpersonal relationships. Such interdependence occurs when an individual's cognitions, emotions or behaviors influence the cognitions, emotions, or behaviors of their romantic partner (Kelley et al., 2003). The APIM provides better accuracy by retaining the measures of each individual while treating them in the context of a nested dyad (Cook & Kenny, 2005). In examining the

individual and the dyad, the APIM assesses actor effects, or the influence an individual makes on him or herself, as well as partner effects, the influence an individual makes on his or her partner.

Figure 1

Path Diagram of the Actor-Partner Interdependence Model (APIM)



Note. Adapted from Cook & Kenny (2005). *X* = Female partner score on predictor variable; *Y* = Female partner score on outcome variable; *X'* = Male partner score on predictor variable; *Y'* = Male partner score on outcome variable; *a* = actor effects and *p* = partner effects. Single-headed arrows indicate causal/predictive pathways.

Power and Gender

In adapting power theory to incorporate a dyadic lens to examine power in close relationships, the role of gender has been explored. Past literature of partner dominance has examined power balance chiefly through decision-making and determination of division of labor

from the perspective of only one partner (Kulik, 2011; Luttrell et al., 2018). Generally, the partner that dominates decision-making and performs fewer household chores is considered to be more powerful (Kulik, 2011). Yet in other research, money, resources and time have served as a key power bases for the more dominant partner (Luttrell et al., 2018). More in line with dyadic theories of power, Luttrell and colleagues (2018) suggest that a "feminist framework" should be adopted to shift the focus to power breakdown based on gender. This dyadic, gender-based approach is suggested since past studies have found that factors such as money, decision-making and division of household labor do not affect power expression when gender remains constant (Luttrell et al., 2018). Furthering this**,** substantial changes in gender roles starting in the 1970s have altered how money, resources and division of household chores may be used as power sources in connection with gender (Kulik, 2011; Nomaguchi & Bianchi, 2004).

Given this shift in examining power through a dyadic lens, new research has focused on the breakdown of power between male and female romantic partners. However, despite this shift, previous research and measures have failed to truly capture the dyadic interplay of power use, behavior, and attitudinal outcomes, as well as influence strategies and strategy effectiveness in the context of close relationships. Additionally, power balance proves an elusive construct to measure as most individuals generally perceive their relationship power as equal (Luttrell et al., 2018). Further complicating the matter, many self-report measures of power are subject to distortion and retrospective bias (Rehman et al., 2009).

Recently, new measures like the Relationship Power Inventory (RPI; Farrell et al., 2015) and the Relationship Balance Assessment (RBA; Luttrell et al., 2018) have worked to fill this gap in psychometric tests of power. These measures provide assessments of equality in romantic relationships that are sensitive to the various aspects of gendered power. The RPI contains a

multitude of items that allow for the assessment of power outcomes and process powers of the individual as well as his or her partner. By structuring the RPI dyadically, researchers are able to analyze each partner's use of and resistance to influence strategies, a key aspect of power that previous scales have lacked. The RPI development led to 10 major decision-making domains in which dating partners use their power, including "Friends and Family, Finances, Future Plans, How to Spend Time Together, Parenting, Purchases, Relationship Issues, Religion, Vacations, and When/How Much Time Together" (Farrell et al., 2015). Similarly, the RBA outlines 12 subscales related to power: "Relational, Sexual, Emotional, Rational, Spending, Financial Needs, Time, Accommodation, Avoidance, Status, Social, and Children" (Luttrell et al., 2018). Thus, future research can use these new measures and their associated domains to examine the breakdown of power balance and outcomes for each partner involved in a given romantic relationship.

Power and Relationship Quality

In applying a dyadic gendered-approach, researchers can examine the outcomes of power on relationship satisfaction. When the relationship is highly satisfying, it fulfills the individual's need for security and self-worth (Bui et al., 1994). Further, such high-quality, important, self-defined relationships have the potential to be referenced as a source of power (Oriña et al., 2002). Additionally, in this context, individuals would employ power influence tactics that minimize the risk of damaging the fulfilling relationship (Bui et al., 1994). However, if the relationship is unsatisfying for the individual, more abrasive, potentially relationship-damaging power influence tactics may be employed since the relationship is not fulfilling nor self-defining (Howard et al., 1986; Bui et al., 1994). More in line with interdependence theory, the more powerful, dominant partner, theoretically, has better alternative partners, causing them to be less

fulfilled and committed to their current relationship (Thibaut & Kelley, 1959; Lennon et al., 2013; Waller & Hill, 1951). Previous literature has supported this relationship between power perception and relationship quality in that relationship quality serves as a strong mediator for a negative association between power desire and relationship commitment in both men and women (Handley et al., 2019; Traeder & Zeigler-Hill, 2019). Yet other research has found that male-partner quality mediated the relationship between female power and male commitment (Lennon et al., 2013). However, male's quality of alternatives also mediated the relationship between male power and female commitment (Lennon et al., 2013).

Other negative aspects of power dominance, such as fate and behavior control, have been associated with abusive, unhealthy relationships (Thibaut & Kelley, 1959). Further, power conflicts between partners are related to relationship dysfunction (Rehman et al., 2009). Such distressing relationships were more likely to display anarchic power and less likely to be egalitarian (Rehman et al., 2009). However, these consequences of unequal power within the relationship are compounded in that men and women perceive and desire power differently (Kulik, 2011). In a study regarding gender and power, researchers found a significant negative relationship between commitment and desire for power in men but not in women (Traeder & Zeigler-Hill, 2019). Additionally, men reported more desire for power regardless of their perceived power, whereas women desired power only when they had lower perceived power (Traeder & Zeigler-Hill, 2019). However, dyadic analysis revealed that relationship perception of both partners was heavily influenced by the female partner's desire for power in that women who desired more power were less committed and had male counterparts that were also less committed (Traeder & Zeigler-Hill, 2019). In this sense, women strive for more egalitarian

romantic relationships compared to men (Kulik, 2011; Handley et al., 2019; Traeder & Zeigler-Hill, 2019).

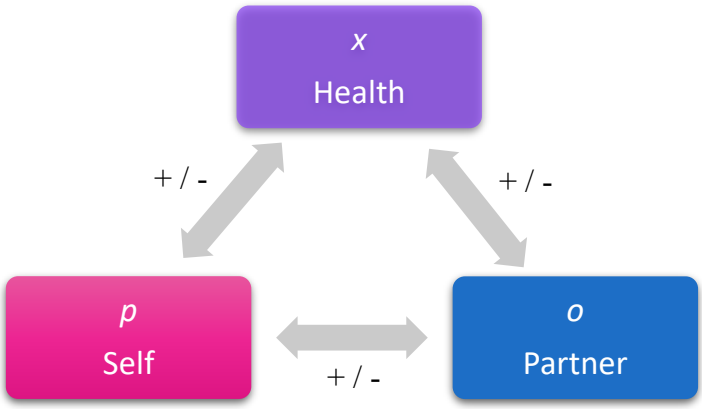
Balance Theory: Attitude and Behavior Similarity

According to Fritz Heider's balance theory (Heider, 1946; Heider, 1958), we form relations based on the desire for psychological stability in our relationships and cognitions. Thus, our relationships aim to balance our personal likes and dislikes, so as not to cause significant incongruence or imbalance (Situngkir & Khanafiah, 2004). In balance theory, a *pox* model may be applied to demonstrate the connection between the central constructs of the current study. In the *pox* model, *p* serves as the *focal* individual, *o* represents another person, and *x* represents any attitudinal object (e.g., attitudes regarding a particular issue, interest, behavior, group, etc.) (Alessio, 1990; Situngkir & Khanafiah, 2004). The sentiment relation between two variables is indicated as either positive or negative and balance is achieved when the resulting multiplication of all sentiment relation signs is positive (Alessio, 1990; Situngkir & Khanafiah, 2004). Previous research has supported Heider's claim that balanced relationships tend to remain balanced while imbalanced relationships also tend toward balance over time (Alessio, 1990; Heider, 1958; Deutsch & Solomon, 1959; Jones, 1966; Price et al., 1966). However, other research is contradictory regarding the extent to which imbalance becomes intolerable. Similar to interdependence theory, it is theorized that imbalance becomes intolerable in the relationship when alternatives can be realized, and immediate high costs are no longer tolerated merely for long-range expectations (Alessio, 1990). Figure 2 applies the *pox* model to the relation of romantic partners and health. The sentiment relation between self, *p*, and partner, *o*, is determined by an attitude of self and partner towards healthy lifestyle behaviors, *x*. Thus, the triadic relationship is considered balanced if all three of the sentiment relations are positive or

two of the sentiment relations are positive and one is negative. In line with balance theory, the individual or self, enters the relationship with the partner on the basis that they establish balance regarding health.

Figure 2

Heider's pox Model Applied to Romantic Partners and Health



Note. Adapted from Situngkir & Khanafiah (2004).

This balance may be represented through a multitude of combinations of sentiment relations including, a positive self-partner relation, positive self-health relation and positive partner-health relation, or a positive self-partner relation, negative self-health relation, and negative partner-health relation. The former sentiment relations represent mutual positive attitudes between romantic partners as well as positive attitudes between each romantic partner and his or her health. Contrasting this, the latter relations represent mutual positive attitudes between romantic partners but negative attitudes between each romantic partner and his or her health. Given the current study is focused on targeting health promotion through relationships

and power, the latter relation, although balanced, is problematic. The triadic structure demonstrates a cyclical nature in which the self and partner negative attitudes or dislike of health strengthens the positive sentiment relation between each romantic partner while exacerbating each romantic partner's dislike for health (Alessio, 1990; Jordan, 1953). Ideally, the desired balance sentiment relation is represented in the former relation in which all variables, self, partner, and health, hold positive sentiment relations, in which dyads hold similar views about the importance of a healthy lifestyle and what constitutes a healthy lifestyle.

In the case of imbalance between romantic partners and health, the imbalance is drive-inducing, releasing forces aimed at balance restoration (Price et al., 1966; Heider, 1958). Such forces may result from a multitude of mechanisms including self-disclosure, minding, and self-expansion (Aron et al., 1991; Harvey & Omarzu, 1997; Reis & Shaver, 1988). Mirroring Heider's (1958) concept of cognitive "unit relation," the closeness of romantic partners due to the context of the relationship promotes self-expansion. When facing imbalance, self-expansion drives the individual towards the attitudes and behaviors of the romantic partner (Aron et al., 1991). Thus, by altering their own self-concept to incorporate the incongruent aspects of their partner, the individual is able to restore relational balance and return to a state of stability. However, regardless of balance or imbalance, the closeness of romantic partners can create self-partner similarities due to the mutual influence they have on each other's self-schemata (Deutsch & Mackesy, 1985). In this sense, just as subjective closeness and relationship satisfaction are critical factors in the balance of power, they are also key determinants in the extent to which romantic partners amalgamate their views.

Dyad Similarity and Relationship Quality

While subjective closeness is linked to self-expansion tendencies, self-expansion is also complexly related to relationship satisfaction (Harvey & Omarzu, 1997; Muise et al., 2019). Such overlap of attitude and value similarities through self-expansion serve as important influential factors regarding relationship satisfaction and development of a high-quality relationship (Fuglestad, 2018; Gaunt, 2006; Luo & Klohnen, 2005). Additionally, research has shown that romantic relationships high in self-partner similarities were associated with higher ratings of relationship quality, although more so for personality-related domains than attitude-related domains (Gaunt, 2006; Luo & Klohnen, 2005). However, the attitudinal domains in question must be of high importance in order for balance to hold significance. Further, romantic partners more similar in attachment characteristics resulted in stronger prediction of relationship satisfaction (Luo & Klohnen, 2005). Alternatively, other research shows stronger self-partner similarities in demographics, personal interests, attitudes, and values rather than personality overlap (Klohnen & Luo, 2003; Luo, 2009; Watson et al., 2004). Regardless, general similarity is most crucial in long-term relationships, compared to short-term relationships and friendships (Treger & James, 2018). Of the potential similarity domains, travel desires, career goals, political attitudes, and food preferences were among the most important in long-term relationships (Treger & James, 2018).

Given the interdependence of romantic partners, personal goals translate into interdependent goals, which in turn impacts individual and relationship well-being. Personal goals, such as ones related to career, finances, fitness, and health, are important factors linked to relationship compatibility and conflict (Fitzsimons & Anderson, 2011). Since self-partner similarity matters, romantic couples pursuing dissimilar goals creates tension in the relationship,

impeding goal progression and relationship quality (Fitzsimons & Anderson, 2011). This can be detrimental in that relationship quality can serve as a protective factor against many health conditions due to the tendency of individuals to project personal motives for self-regulation of health behaviors onto their romantic partner (Holt-Lunstad et al., 2010; Howland et al., 2016; Robles et al., 2014; Rodriguez et al., 2014). Such effects of interpersonal regulation of health are evident in the ability of romantic partners to mutually enhance each other's physical health through stabilizing cardiovascular, immune, and endocrine function as well as reinforcing healthy lifestyle habits (Craddock et al., 2015; Robles et al., 2014). However, positive influences on health by the romantic partner and relationship quality are dependent upon the perceived motive of interpersonal regulation of health behaviors (Berzins et al., 2018). More specifically, if the motive is interpreted as positive, stemming from genuine concern, often the individual will adjust their health practices. However, if the motive is misperceived, it can create additional issues in relationship quality and individual health (Berzins et al., 2018). Thus, through self-expansion and interpersonal regulation, romantic partners have the potential to influence each other's health attitudes and behaviors, for better or worse.

Health and Gender

Besides influencing perceived power and attitudinal similarity, both relationship status as well as relationship quality possess the potential for widespread, positive and negative effects on health outcomes (Howland et al., 2016; Robles et al., 2014; Rodriguez et al., 2014). Past research regarding health behaviors has focused on intrapersonal factors, like self-control and attitudinal evaluations of health, as well as external factors, including nonsocial features of the environment and physical features of the social environment (Howland et al., 2016). However, applying a dyadic perspective to health, such as through the theory of planned behavior, reveals a social,

interpersonal component of health not previously examined (Howland et al., 2016). Through the process of self-expansion, individuals may alter their own self-concept, adopting their romantic partner's health habits (Aron et al., 1991). Thus, the health attitudes of each romantic partner may amalgamate, influencing each other's health attitudes and subsequent health behaviors. Additionally, the social context and gender roles of the relationship can impact men and women's eating and exercise habits (Howland et al., 2016; Kulik, 2011).

For example, gender norms influence role responsibilities and decision-making of each romantic partner, which are also influenced by each partner's perceived power within the relationship. As a whole, married adults with young children and long hours of employment spend considerably less time exercising compared to their counterparts (Nomaguchi & Bianchi, 2004). More specifically, women spend less leisure time on exercising than men. However, the negative association between role responsibility and time spent exercising is greater for men than women (Nomaguchi & Bianchi, 2004). Some differences between men and women and health are a resultant of change in men's family involvement role and women's economic roles. Further, the different societal pressures expected of each gender influence the interaction between gender and health. For example, although women live longer, are less sick, and seek out medical help more than men, there is little knowledge regarding the intertwined nature of these health habits between partners in romantic relationships (Harvard Health Publishing, 2019). Regarding food consumption, women displayed a higher tendency to eat in group settings, as well as stressful situations, compared to men (Grzymisławska et al., 2020). Further, men associate daily physical activity with healthy lifestyle, whereas women associated monitored nutrition and food intake with healthy lifestyle (Grzymisławska et al., 2020). Additionally, dietary behaviors have shifted to include decreased fruit and vegetable intake, and increased

calories, added sugars, saturated fats and sodium (U.S. Department of Health and Human Services and U.S. Department of Agriculture, 2015). More specifically, men consume more calories, sodium, refined grains, and protein, exhibiting an eating pattern reflective of pleasurable consumption (Rolls et al., 1991; U.S. Department of Health and Human Services and U.S. Department of Agriculture, 2015; Grzymisławska et al., 2020). Contrasting this, women consume more foods commonly associated with caloric restriction, exhibit more dieting and weight management strategies, as well as disordered eating patterns (Rolls et al., 1991). Increased reports of body image dissatisfaction and food-related conflict are indicative of the social pressures to be slim that women face, often starting in early adolescence (Grzymisławska et al., 2020; Rolls et al., 1991). Such emphasis on image and dieting is linked to success in attracting a romantic partner (Boyes et al., 2007)

Health and Relationship Quality

Similar to power, health exhibits a bidirectional association with relationship satisfaction. Often, when romantic partners are in a highly satisfied relationship, they are more likely to be in better health compared to those in dissatisfying relationships (Robles et al., 2014). Boyes and colleagues (2007) found that male partners who were depressed and had lower relationship satisfaction, had female partners who had lower body satisfaction and increased dieting. Contrasting this, when female partners reported higher self-esteem and fewer symptoms of depression, male partners dieted more (Boyes et al., 2007). Additionally, the health behaviors of coping by eating and physical activity have been identified as key mechanisms linking physical health and relationship quality (Roberson et al., 2018). Accounting for the interdependent nature of romantic couples, a dyadic study examining cancer patients and their spouses found that the actor effects of the patient's physical health predicted their own relationship satisfaction,

whereas the partner effects revealed that the physical health of the spouse and the patient influenced each other's relationship satisfaction (Ross et al., 2016). While previous research links physical health and relationship satisfaction, a majority of research considers mental health to be a predominate factor. However, since mental and physical health have a complex, bidirectional relationship (Ohrnberger et al., 2017; Rebar et al., 2015; White et al., 2014), it important to isolate the effects of physical health on relationship satisfaction and quality.

Current Study

Given prior research fails to incorporate interpersonal influences of health and power dynamics associated with romantic couples, the current research addresses two, overarching lines of inquiry, each consisting of several hypotheses. The first line of inquiry applied the APIM in that it targeted the dyadic relations among each partner's health-related attitudes and health behaviors. First, it was hypothesized that actor effects would reveal that an individual's attitudes regarding health will be predictive of the individual's subsequent health behaviors. For example, female health attitudes will be highly predictive of female health behaviors. Regarding dyadic influences, it was hypothesized that the health attitudes of both romantic partners would bidirectionally influence the health behaviors of both romantic partners. Thus, female health attitudes would predict male health behaviors, and male health attitudes would predict female health behaviors. Extending the APIM analysis of health attitudes predicting health behaviors, gendered power as a moderator of the dyadic effects was explored. It was hypothesized that personal power will moderate the actor and partner effects for both dyad members.

The second line of inquiry examined the influence and degree of similarities between romantic partners' health attitudes and behaviors, as well as relationship quality. Each romantic dyad received a similarity score for health attitudes and health behaviors, calculated by

correlating each partner's item scores on each health measure. It was hypothesized that romantic couples with greater similarity scores in health attitudes would be positively correlated with higher reports of relationship quality for both females and males. Likewise, greater similarity scores on health behaviors for romantic dyads was predicted to be positively correlated with higher reports of relationship quality for both females and males. Lastly, it was hypothesized that a higher dyad similarity score on health attitudes would be positively correlated with higher dyad similarity scores on health behaviors.

Method

Participants

Participants included 96 undergraduate students (i.e., 48 romantic couples) from a midsize public university in the southeastern region of the United States who received a $5 Amazon gift card ($n$ = 54) or research participation credit in exchange for their involvement (n = 42). Participation was limited to individuals involved in a heterosexual romantic relationship for at least six months and whose romantic partner was also willing to participate in the study. The sample was limited to individuals in heterosexual romantic relationships since previous research has focused mainly on power in the context of heterosexual relationships, and heterosexual couples allow for distinguishable dyads.

Based on an a priori dyadic power analysis, a sample size of approximately n = 25 romantic dyads, or 50 participants, is required to detect an average actor effect size of 0.4, in terms of partial correlation, with 80% power. However, the same power analysis requires a sample size of approximately n = 100 romantic dyads, or 200 participants, to detect an average partner effect size of 0.2, in terms of partial correlation, with 80% power. Thus, power was achieved for only the actor effects, not the partner effects.

Data were excluded for six participants (3 couples) due to identification as being in a non-heterosexual relationship. Further, data of participants under the age of 17 and their romantic partners' data were also excluded. Thus, the final sample consisted of 90 individuals (i.e., 45 romantic relationships). The average age of participants was $M = 22.29$ years ($SD = 6.47$), with an age range of 18 – 52 years. Additionally, the racial and ethnic composition of participants included White/Caucasian (72.2%), Black/African American (6.7%), Hispanic/Latino/Latina/Latinx (6.7%), Asian/Pacific Islander (3.3%), and Biracial/Multi-ethnic (11.1%). The mean relationship length was $M = 29.21$ months ($SD = 36.00$) and romantic relationship composition was dating multiple people ($n = 1$, 1.1%), dating exclusively ($n = 69$, 76.7%), engaged ($n = 3$, 3.3%), married, ($n = 7$, 7.8%), cohabitating ($n = 9$, 10.0%), and other ($n = 1$, 1.1%) (Table 1). Of the males included in the study, the mean age was 22.94 years ($SD = 7.46$) and a majority of male participants identified as White/Caucasian ($n = 34$, 77.3%). The mean age of female participants was 21.76 years ($SD = 5.57$) and a majority of female participants identified as White/Caucasian ($n = 31$, 75.6%).

Table 1

Summary of Participant Demographics

Variable	*n* (%)	*M* (*SD*)
Age (years)		22.29 (6.47)
Biological Sex		
Male	45 (50.0%)	
Female	45 (50.0%)	
Intersex	0 (0.0%)	
Prefer not to say	0 (0.0%)	
Gender		
Male	45 (50.0%)	
Female	43 (47.8%)	
Non-Binary/Third Gender	1 (1.1%)	
Prefer not to say	1 (1.1%)	
Race/Ethnicity		
White/Caucasian	65 (72.2%)	
Black/African American	6 (6.7%)	
Hispanic/Latino/Latina/Latinx	6 (6.7%)	
Asian/Pacific Islander	3 (3.3%)	
Biracial/Multi-Ethnic	11 (11.1%)	
Relationship Length (months)		28.72 (35.95)
Relationship Status		
Dating Multiple People	1 (1.1%)	
Dating exclusively	69 (76.7%)	
Cohabitating	9 (10.0%)	
Engaged	3 (3.3%)	
Married	7 (7.8%)	
Other	1 (2.2%)	

Note. Counts and percentage are provided for all categorical variables. Means and standard deviations are provided for all continuous variables.

Procedure

The study was approved by the University Internal Review Board committee prior to data collection. Following IRB approval, participants reviewed and agreed to an electronic informed consent form before they began the study. Participant treatment followed the APA Ethical Principles of Psychologists and Code of Conduct (American Psychological Association, 2017), which includes maximization of benefits and minimization of risks, as well as respect for people's rights to privacy, confidentiality, and self-determination. Additionally, given the online format of this study, participants safety regarding COVID-19 risk was minimized.

Upon confirming consent, participants, including both couple members, completed several self-report measures online at home. First, each participant completed a basic demographic survey. Following this, they completed self-report measures concerning their perceived power in their relationship, their relationship quality, as well as their attitudes and behaviors regarding healthy eating and exercise. Randomization of questionnaire block order was used to control for order effects and mask the purpose of the study from participants. Finally, participants were debriefed and thanked for their participation in the research study.

Initial participants were recruited through SONA, an online survey collection system. These participants received partial fulfillment of a research participation requirement in exchange for their involvement through SONA. When taking the survey, these participants were asked to provide their romantic partner's name and contact information, so their partner could be contacted via a separate recruitment email.

The romantic partners of participants recruited using SONA, were then sent a recruitment email providing information regarding the study and that their romantic partner provided their contact information. These participants completed the same series of questionnaires that the

SONA participants received. Participants who completed the survey via the recruitment email received a $5 Amazon e-gift card as compensation. Regardless of the number of participants who completed the survey, data collection concluded on February 24th, 2021.

Measures

Demographic Information

Participants were asked to report their demographic information including, their age, gender, assigned sex at birth, and race/ethnicity; their relationship status (i.e., exclusively dating, cohabitating, engaged, married, other); and the length of the current romantic relationship.

Power

The Relationship Power Inventory (RPI) Overall version was used to measure each individual's perceived power in their romantic relationship (Farrell et al., 2015). The Overall RPI is a 20-item questionnaire designed to assess the perceived power of each partner in their romantic relationship (E.g., "I have more say than my partner does when we make decisions in our relationship"). Participants rated each item based on a 7-point Likert scale, ranging from 1 (*never*) to 7 (*always*), with ratings reverse-scored for 10 items regarding the romantic partner (E.g., "My partner has more control over decision making than I do in our relationship," reverse-scored). Participant's responses were averaged across all items so that higher scores indicated higher levels of perceived power. This was calculated for each partner within each heterosexual dyad, thus creating a female power score and male power score (Table 2). Farrell and colleague (2015) have found that the Overall RPI possesses adequate psychometric properties, including good reliability and validity, in previous research. Additionally, the Overall RPI displayed adequate reliability in the current study (Overall $\alpha = .76$; Personal Power $\alpha = .91$; Partner's Power $\alpha = .89$) (Table 2).

Relationship Quality

Each participant's relationship quality was assessed using the Perceived Relationship Quality Components Inventory (PRQC; Fletcher et al., 2000). The PRQC is an 18-item questionnaire designed to measure six components of perceived relationship quality (satisfaction, commitment, intimacy, trust, passion, love). The total 18 items are divided into sets of 3-item scales for each of the six components: satisfaction, commitment, intimacy, trust, passion, and love (E.g., "How satisfied are you with your relationship"). Participants respond to each item based on a 7-point Likert scale, ranging from 1 (*not at all*) to 7 (*extremely*). The total relationship quality index was calculated by averaging all 18 items and used to represent an overall relationship quality score, with higher scores indicated a better-quality relationship. This was calculated for each partner within each heterosexual dyad, thus creating a female relationship quality score and male relationship quality score (Table 2). Fletcher and colleagues (2000) found the PRQC to have good validity, including high face validity, and good internal consistency. Additionally, the PRCQ exhibited adequate reliability in the current study as well ($\alpha = .94$) (Table 2).

Health Attitudes

Health attitude, or level of importance placed on health, was assessed using two measures, the Exercise Identity Scale (EIS; Anderson & Cychosz, 1994) and the Healthy-Eating Identity Scale (H-EIS; Strachan & Brawley, 2009). The EIS is a 9-item questionnaire designed to measure the extent to which exercise is a fundamental part of an individual's self-concept (E.g., "I consider myself an exerciser"). All original items from the EIS were retained. However, some additional items were added, including, "It is important for my health that I exercise regularly," and "I do not want to spend time exercising" (reverse-scored). Respondents score all 11 items

according to a 7-point Likert scale, ranging from 1 (*strongly disagree*) to 7 (*strongly agree*). Anderson and Cychosz (1994) found the EIS to have good reliability and validity, including strong test-retest reliability, convergent validity, and internal consistency.

The Healthy-Eating Identity Scale (H-EIS) is a modified version of the Exercise Identity Scale (EIS), developed to assess the extent that healthy eating is important to the individual (Strachan & Brawley, 2009). Strachan and Brawley (2009) altered original EIS items, such as "I consider myself to be an exerciser" to "I consider myself to be a healthy-eater" (Anderson & Cychosz, 1994; Strachan & Brawley, 2009). All original items from the H-EIS were retained with the addition of several items, including "It is important that my food is healthy" and "I do not want to spend the time learning how to eat healthy" (reverse-scored). Participants respond to the 12-item scale using a 7-point Likert scale, ranging from 1 (*strongly disagree*) to 7 (*strongly agree*). Tabachnick and Fidell (1996) found the H-EIS to have high reliability as well.

The EIS items represent an exercise subscale, with higher scores indicating more attitudinal importance regarding healthy exercise. Likewise, the H-EIS items represent an eating subscale, with higher scores representing more attitudinal importance placed on healthy eating. One item was reverse-scored in the EIS and two items were reverse-scored in the H-EIS. Since both the EIS and H-EIS mirror one another, participants' scores on each were summed to provide a total healthy attitude score, with a higher total healthy attitude score indicating a stronger health attitude, or more importance placed on healthy eating and exercise. This was calculated for each partner within each heterosexual dyad, thus creating a female health attitude score and male health attitude score (Table 2). Similar to the original scales, the general health attitudes scale ($\alpha = .79$), and two subscales (Exercise $\alpha = .70$; Eating $\alpha = .71$) displayed acceptable reliability (Table 2).

Health Behaviors

The Health Practices Scale (Jackson, 2006) was modified to only assess eating and exercise behaviors. The original Health Practices Scale consists of 58 items assessing health behaviors on 5 subscales: balanced diet, regular exercise, medical adherence, substance abuse, and adequate sleep. Only select items from the diet and exercising subscales were used, and some additional items were added to assess basic dietary habits such as frequency of eating breakfast, lunch, and dinner, as well as hours spent sedentary. The resulting questionnaire consists of 33 items for the two subscales of eating (19 items: e.g., "Eat a balanced diet," "Eat junk food," reverse-scored) and exercising (14 items: e.g. "Go for regular walks," "Avoid exercising," reverse-scored). Participants respond to each item using a 6-point Likert scale, ranging from 1 (*never*) to 6 (*always*), based on the frequency of the participant's average daily routine. Four items in the eating subscale were reverse-scored, while three items in the exercise subscale were reverse-scored. Item responses were summed to create a composite health behavior score, with a higher overall health behavior score indicative of increased frequency of regularly performing health behaviors. This was calculated for each partner within each heterosexual dyad, thus creating a female health behavior score and male health behavior score (Table 2). The original Health Practices Scale demonstrated excellent internal consistencies for each of its subscales (Jackson, 2006). Similarly, the general health behavior scale ($\alpha = .92$) as well as its subscales (Exercise $\alpha = .92$; Eating $\alpha = .86$), exhibited adequate reliability (Table 2).

Table 2

Summary of Descriptive Statistics

Measure	Total Sample				Females				Males			
	M (SD)	Skew	Kurtosis	α	M (SD)	Skew	Kurtosis	α	M (SD)	Skew	Kurtosis	α
Overall RPI	4.19 (0.64)	0.12	0.49	.76	4.33 (0.61)	-0.51	0.93	.77	4.05 (0.65)	0.74	1.48	.75
PRQC	6.46 (0.67)	-2.74	0.25	.94	6.39 (0.83)	-2.59	7.63	.96	6.54 (0.46)	-1.35	1.78	.87
Health Attitudes	63.52 (10.85)	0.23	0.26	.79	63.64 (12.35)	0.30	-0.38	.85	63.39 (9.20)	0.02	-0.37	.65
Exercise	29.35 (6.12)	0.01	0.26	.70	28.60 (6.81)	0.20	-0.15	.80	30.11 (5.29)	-0.12	-0.38	.48
Eating	34.17 (6.65)	0.00	0.26	.71	35.04 (7.30)	0.10	-0.93	.78	33.27 (5.87)	-0.48	0.42	.56
Health Behaviors	141.45 (27.90)	-0.04	0.26	.92	141.73 (25.66)	-0.23	0.33	.92	141.16 (30.32)	0.08	-0.79	.92
Exercise	57.44 (17.05)	0.01	0.26	.92	55.93 (15.65)	0.09	-0.13	.91	58.98 (18.43)	-0.11	-1.31	.93
Eating	84.01 (15.00)	-0.06	0.26	.86	85.80 (14.76)	-0.12	-0.47	.88	82.18 (15.19)	0.02	-0.51	.84

Analysis Plan

The following analyses were used to evaluate the first line of inquiry aimed at examining the dyadic associations among health attitudes and behaviors. In accord with the APIM, an analysis of dyadic patterns was tested using a series of regressions in SPSS. These analyses consisted of a series of correlations and regressions. First, an independent samples t-test was used to test for gender differences between males and females on all study variables. Then, a Pearson Product Moment Correlation was used to correlate the total sample's health attitudes and health behaviors. Additionally, correlations were used to examine associations between gendered health attitudes and gendered health behaviors. Next, a series of regressions were used to assess the actor and partner effects for female and male health behaviors (as depicted in Figure 1). For example, female health behaviors were regressed onto female attitudes (female actor effect) and male attitudes (male partner effect) and male health behaviors were regressed onto male attitudes (male actor effect) and female attitudes (female partner effect). To test the moderating effects of gendered power on the actor and partner effects between health attitudes and health behaviors, Model 1 (simple moderation model) of the Process Macro by Andrew Hayes was used.

The following analyses were used to evaluate the second line of inquiry aimed at examining the associations of romantic dyad health similarity scores with relationship quality. First, dyad similarity scores were created for each dyad by restructuring the data and correlating each partner's item scores on health attitudes and health behaviors. Then, a Pearson Product Moment Correlation was used to correlate dyad similarity scores on health attitudes and health behaviors with gendered relationship quality scores.

Results

Statistical Assumptions

Before conducting analyses, the appropriate statistical assumptions regarding each analysis were assessed in order to ensure accuracy of conclusions drawn. Additionally, by checking the statistical assumptions, we can lower the potential for both Type I and Type II errors, as well as obtain better estimates of effects, including actor and partner effect sizes.

Regarding the statistical assumptions corresponding to Pearson Product Moment Correlation, all variables are either interval or ratio scales of measurement. Additionally, all variables exhibited linear relationships between one another. Further, normality was assessed through identification of outliers and examination of skewness and kurtosis statistics. Outliers were identified using boxplots, which generate outliers that are above or below three standard deviation units of the mean for each scale and subscale. Upon analysis, the PRQC produced outliers, totaling six participants on the lower of the data range. Additionally, the Overall RPI Power score produced four total outliers, with two participants considered outliers on the lower end of the data range and two participants considered outliers on the upper end of the data range. No other scales or subscales produced outliers within the three standard deviation cutoff. Regarding skewness, only the PRQC displayed a large negative skew (skewness = -2.74), indicating potential ceiling effects. No other scales or subscales indicated issues with skewness. Lastly, all scales and subscales displayed kurtosis values representing mesokurtic distributions (kurtosis = 0.19 – 0.58; Table 2). Issues regarding the outliers and skewness of the PRQC are, however, consistent with prior research, reflecting that participants generally tend to hold positive evaluations towards their romantic partners and relationships (Fletcher et al., 2000).

Following this, the statistical assumptions of linear regressions and moderation analyses were assessed. For normal linear regression, all variables displayed a linear relationship with independent observations. Regarding the linear regressions relevant to APIM analyses, the assumption of independent observations was also upheld since the dyad is the unit of the analysis, not the person (Cook & Kenny, 2005). Additionally, the assumption that the residuals are normally distributed, and homoscedasticity of the residuals was assessed using residual plots. The assumption that the residuals are normally distributed and reflect homoscedasticity was upheld. Further, multicollinearity was assessed for each regression model and was not an issue.

Gender Differences Analysis

First, an independent samples t-test was used to assess the differences in scores on all variables between males and females. Scores regarding overall power by males (M = 4.05, SD = 0.65) were significantly lower than scores on overall power by females (M = 4.33, SD = 0.61), $t(88) = -2.09$, $SE = .13$, $p = .040$, $d = -.44$. However, males and females did not score significantly different from one another on all other study variables.

Correlational Analyses

Using SPSS, a Pearson's bivariate correlation was used to assess the relations between the core variables: overall power, relationship quality, health attitudes (general, exercise, eating), and health behaviors (general, exercise, eating). The results of the analysis are displayed in Table 3. Overall power only positively correlated with general health attitudes and the health attitudes eating subscale, it was unrelated to all other study variables. General health attitudes was positively correlated with general health behaviors and the health behaviors exercise and eating subscales. Further, the exercise health attitude subscale was positively correlated with the eating subscale of health attitudes and the exercise subscale of health behaviors. The eating health

attitudes subscale was positively correlated with general health behaviors, and both the exercise and eating health behaviors subscales. Lastly, the health behaviors subscale of exercise was positively correlated with the health behaviors eating subscale.

Table 3

Bivariate Correlations among Measures

	1.	2.	3.	4.	5.	6.	7.	8.
1. Overall RPI	-							
2. PRQC	-.20	-						
3. Health Attitudes	.12	.23*	-					
4. Health Attitudes - Exercise	.03	.30**	.84**	-				
5. Health Attitudes – Eating	.17	.10	.86**	.44**	-			
6. Health Behaviors	.09	.12	.44**	.38**	.36**	-		
7. Health Behaviors - Exercise	.00	.19	.44**	.45**	.30**	.89**	-	
8. Health Behaviors - Eating	.16	.02	.31**	.20	.33**	.85**	.51**	-

Note. *$p < .05$, **$p < .01$

Additionally, the associations among study variables were examined separately for females and males (see Table 4). Regarding female scores, overall power was not related to any study variables. For females, relationship quality was only moderately, positively correlated with the exercise subscale of health attitudes, all other correlations with study variables were nonsignificant. Female health attitude scores displayed strong, positive correlations with female exercise and eating attitudes, as well as moderate, positive correlations with female health

behaviors and exercise behaviors. However, female health attitudes and exercise attitudes were unrelated to female eating behavior. Further, female scores on exercise attitudes were strongly correlated with eating attitudes and exercise behaviors but was moderately correlated with general health behaviors. Interestingly, female eating attitude scores were unrelated to any other health scores, including health behaviors, exercise health behaviors, and eating health behaviors. Lastly, female exercise health behaviors were only moderately correlated with female eating health behaviors. Thus, women did not display significant attitude-behavior consistency regarding eating.

Similar to female power correlations, male scores on overall power were unrelated to all study variables. Likewise, male relationship quality was not correlated with all study variables. Male health attitudes exhibited a strong positive correlation with male exercise and eating attitudes. Dissimilar to female scores, male scores on health attitudes exhibited a moderate, positive correlation with male scores on health behaviors as well as the exercise and eating health behavior subscales. Male exercise health attitude scores were moderately correlated with male eating health attitudes, health behaviors, and only the exercise health behaviors subscale. Male eating attitude scores exhibited a moderate, positive correlation with male health behavior scores and its subscales, exercise and eating. Thus, contrary to females, males displayed significant attitude-behavior consistency regarding eating.

Table 4

Bivariate Correlations among Measures by Gender

	1.	2.	3.	4.	5.	6.	7.	8.
1. Overall RPI	-	-.04	.25	.19	.22	.19	.14	.20
2. PRQC	-.29	-	.13	.20	.02	-.01	.16	-.20
3. Health Attitudes	.02	.28	-	.80**	.84**	.49**	.49**	.38*
4. Health Attitudes - Exercise	-.04	.33*	.87**	-	.36*	.33*	.39**	.18
5. Health Attitudes – Eating	.08	.16	.88**	.53**	-	.47**	.42**	.43*
6. Health Behaviors	-.04	.22	.41**	.46**	.27	-	.92**	.88**
7. Health Behaviors - Exercise	-.13	.21	.43**	.52**	.24	.85**	-	.62**
8. Health Behaviors - Eating	.07	.16	.27	.25	.22	.83**	.42**	-

Note. Correlations are presented below the diagonal for females and above the diagonal for males. *$p < .05$, **$p < .01$

Actor-Partner Interdependence Model Analyses

The actor and partner effects of the Actor-Partner Interdependence Model were assessed in SPSS using a series of linear regressions. More specifically, actor effects for each gender were assessed by regressing gender health behavior and subscales onto the corresponding gender health attitudes and subscales. Partner effects for each gender were assessed by regressing gender health behavior and subscales onto the opposite gender's health attitudes and subscales. Each actor effect was conducted controlling for the partner effect, and vice versa.

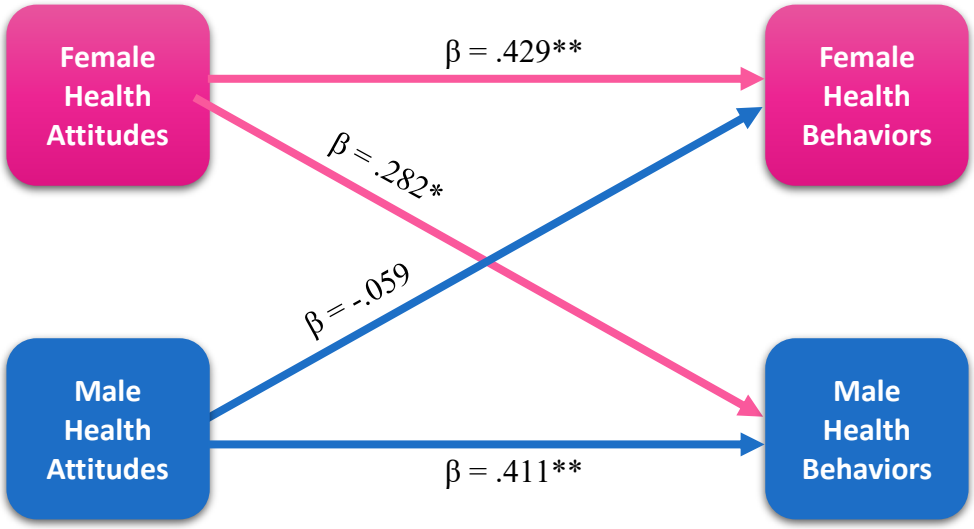
Predicting Health Behaviors

A multiple regression was conducted to test the actor and partner effects in predicting female health behaviors. The overall model was significant, $F(2,41) = 4.31$, $p = .020$, $R^2 = .174$. However, only the actor effect was significant. Thus, only female health attitudes, not male health attitudes, predicted female health behaviors (Figure 3).

Additionally, a similar multiple regression was conducted to examine the actor and partner effects in predicting male health behaviors. Again, the overall model was significant, $F(2,41) = 9.28$, $p < .001$, $R^2 = .312$. Contrary to female effects, both the actor effect and partner effect were significant. Thus, both male and female health attitudes predicted male health behaviors (Figure 3).

Figure 3

Gendered Actor and Partner Effects of Health Attitudes on Health Behaviors



Note. Single-headed arrows indicate causal/predictive pathways. β = standardized coefficients. *$p < .05$, **$p < .01$.

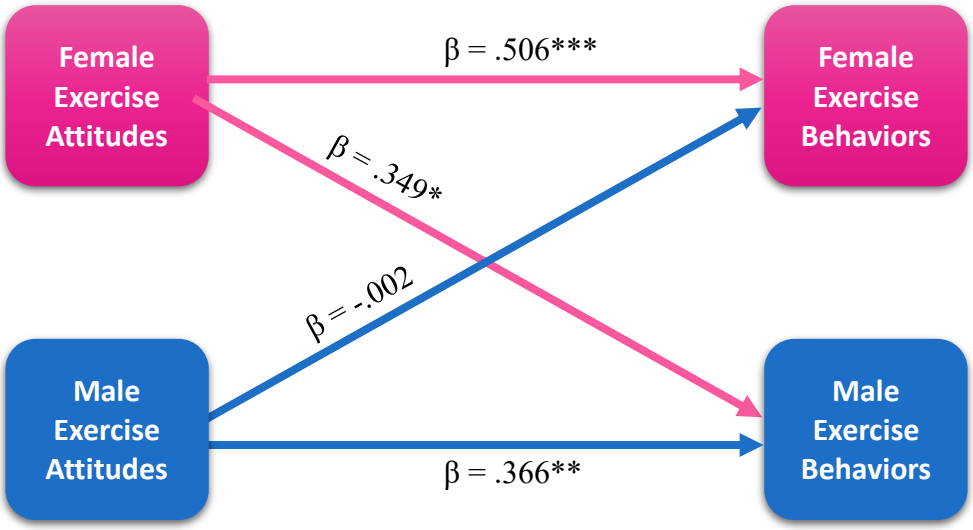
Predicting Health Behaviors – Exercise

A similar multiple regression was conducted, analyzing the actor and partner effects of health exercise attitudes predicting health exercise behaviors for each gender. The first overall model, which predicted female exercise behaviors, was significant, $F(2,41) = 7.03$, $p = .002$, $R^2 = .255$. However, only the actor effect was significant. Thus, only female exercise attitudes, not male exercise attitudes, predicted female exercise behaviors (Figure 4).

The next multiple regression model assessed the actor and partner effects in predicting male exercise behaviors. Again, the overall model was significant, $F(2,41) = 7.64$, $p = .002$, $R^2 = .272$. Contrary to female effects, both the actor effect and partner effect were significant. Thus, both male and female health attitudes predicted male exercise behaviors (Figure 4).

Figure 4

Gendered Actor and Partner Effects of Exercise Attitudes on Exercise Behaviors



Note. β = standardized coefficients. *$p < .05$, **$p < .01$, ***$p < .001$.

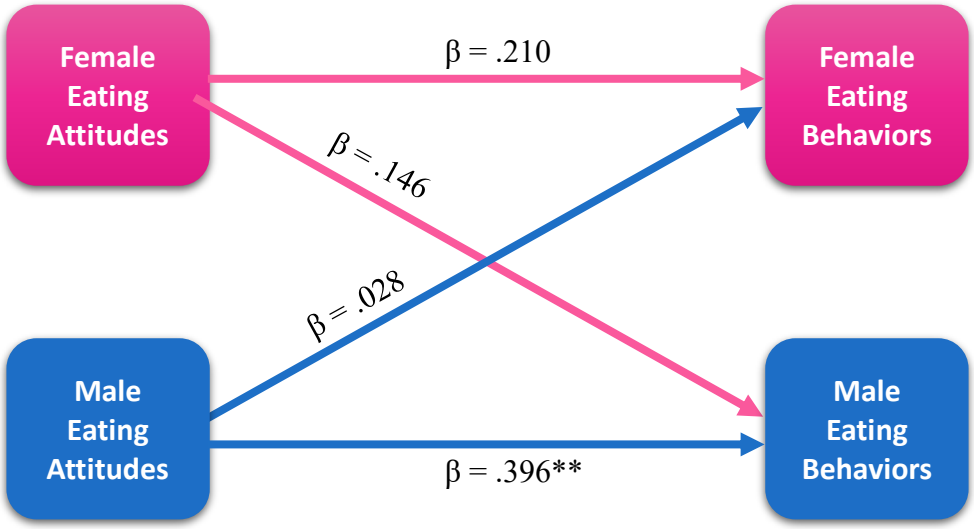
Predicting Health Behaviors – Eating

The last set of multiple regressions analyzed the actor and partner effects of health eating attitudes predicting health eating behaviors for each gender. The first overall model, which predicted female eating behaviors, was not significant, $F(2,41) = 1.04$, $p = .364$, $R^2 = .048$. Thus, neither female nor male eating attitudes predicted female eating behaviors (Figure 5).

Contrary to the results of the overall model predicting female eating behaviors, the overall model predicting male eating behaviors was significant, $F(2,41) = 5.40$, $p = .008$, $R^2 = .208$. However, only the actor effect was significant. Thus, only male eating attitudes, not female eating attitudes, predicted male eating behaviors (Figure 5).

Figure 5

Gendered Actor and Partner Effects of Eating Attitudes on Eating Behaviors



Note. β = standardized coefficients. *$p < .05$, **$p < .01$.

Moderation Analyses of Female and Male Power

General Health Attitudes Predicting General Health Behaviors. The first analysis assessed the moderating effect of female power on the female actor effect of health attitudes predicting health behaviors, while holding male health attitudes as a covariate. While the overall model was significant, $F(4,39) = 2.98$, $p = .031$, and accounted for 23.4% of variance in female health behaviors, the interaction between the predictor and moderator was not significant (Table 5). Thus, only female health attitudes predicted female health behaviors, $\beta = .454$, $p = .004$. Another model assessed the moderating effect of female power on the partner effect of female health attitudes predicting male health behaviors, while holding male health attitudes as a covariate. This model was significant and accounted for 35.5% of the variability, $F(4,39) = 5.37$, $p = .002$. However, the interaction between female power and female health attitudes was not significant (Table 5).

Further, the moderating effects of female power was assessed on the male actor effect between health attitudes and behaviors, controlling for female health attitudes. While the overall model was significant, $F(4,39) = 4.74$, $p = .003$, and accounted for 32.7% of variance in male health behaviors, the interaction between the predictor and moderator was not significant (Table 5). Thus, only male health attitudes predicted male health behaviors, $\beta = .443$, $p = .005$. When female power was assessed as a moderator to the partner effect between male health attitudes and female health behaviors, controlling for female health attitudes, the overall model was marginally not significant, $F(4,39) = 2.35$, $p = .056$.

The next set of moderation analyses was conducted to assess the moderating effects of male power on each actor and partner effect. The first analysis assessed the moderating effect of male power on the male actor effect of health attitudes predicting health behaviors, while holding

female health attitudes as a covariate. While the overall model was significant ($F(4,39) = 4.66$, $p = .004$) and accounted for 32.3% of variance in male health behaviors, the interaction between the predictor and moderator was not significant (Table 5). Thus, only male health attitudes predicted male health behaviors, $\beta = .378$, $p = .012$. Another model assessed the moderating effect of male power on the partner effect of male health attitudes predicting female health behaviors, while holding female health attitudes as a covariate. This model was not significant, $F(4,39) = 2.23$, $p = .083$. Thus, neither male health attitudes, $p = .739$, nor male power interacted with male health attitudes to predict female health behaviors $p = .083$.

Further, the moderating effects of male power was assessed on the female actor and partner effect between health attitudes and behaviors. The first model assessed the moderating effect of male power on the relation between female health attitudes and female health behaviors, controlling for male health attitudes. The overall model was significant, $F(4,39) = 4.45$, $p = .005$, and accounted for 31.3% of variance in female health behaviors. Additionally, both the predictor, female health attitudes, $\beta = .458$, $p = .002$, and the interaction between the predictor and moderator was significant (Table 5). Thus, female health attitudes were more predictive of female health behaviors when males reported lower power, $\beta = .764$, $p < .001$, versus higher power ($\beta = .134$, $p = .444$). When male power was assessed as a moderator to the partner effect between female health attitudes and male health behaviors, controlling for male health attitudes, the overall model was significant, $F(4,39) = 4.70$, $p = .003$, and accounted for 32.5% of the variance in male health behavior. However, in this model, only female health attitudes, $\beta = .292$, $p = .040$, significantly predicted male health behaviors, not the interaction between female health attitudes and male power (Table 5).

Table 5

Gendered Power Moderating Health Attitude-Behavior Actor & Partner Effects

	ΔR^2	Coefficient	*p*
Female Power Moderator			
$F_{HA} \rightarrow F_{HB}$	.057	.269	.096
$F_{HA} \rightarrow M_{HB}$	.039	.219	.134
$M_{HA} \rightarrow M_{HB}$	.011	.125	.434
$M_{HA} \rightarrow F_{HB}$	.030	.208	.236
Male Power Moderator			
$F_{HA} \rightarrow F_{HB}$	.139	-.359	.008
$F_{HA} \rightarrow M_{HB}$	.002	.038	.762
$M_{HA} \rightarrow M_{HB}$	.000	.003	.980
$M_{HA} \rightarrow F_{HB}$	.012	-.113	.452

Note. F = Female scores, M = Male scores. HA = Health Attitudes scale, HB = Health Behaviors scale. Directional arrow indicates predictor variable predicting the outcome variable. When the first letter of each variable is the same (i.e., F → F), this indicates an actor effect. When the first letter of each variable is not the same (i.e., F → M), this indicated a partner effect.

Exercise Health Attitudes Predicting Exercise Health Behaviors. Another set of moderation models was used to assess the actor and partner effects of the exercise subscales of health attitudes and health behaviors. Using female power as a moderator on the female actor effect between exercise attitudes and exercise behaviors, while controlling for male exercise attitudes, the overall model was significant, $F(4,39) = 3.60$, $p = .014$, and accounted for 27.0% of

variance in female exercise behaviors. However, only female exercise attitudes predicted exercise behaviors, β = .528, $p < .001$; the interaction between the predictor and moderator was not significant (Table 6). Another model assessed the moderating effect of female power on the partner effect of female exercise attitudes predicting male exercise behaviors, while holding male exercise attitudes as a covariate. This model was significant and accounted for 39.7% of the variability, $F(4,39) = 6.43$, $p < .001$. Female exercise attitudes significantly predicted male exercise behaviors, β = .438, $p = .002$. Additionally, the interaction between female power and female exercise attitudes was significant (Table 6). Thus, female exercise attitudes were more predictive of male exercise behaviors for females with higher power, β = .818, $p < .001$, versus lower power, β = .144, $p = .342$.

Further, the moderating effects of female power was assessed on the male actor effect between exercise attitudes and behaviors, controlling for female exercise attitudes. While the overall model was significant, $F(4,39) = 4.06$, $p = .008$, and accounted for 29.4% of variance in male exercise behaviors, the interaction between the predictor and moderator was not significant (Table 6). Thus, only male exercise attitudes predicted male exercise behaviors, β = .401, $p = .012$. When female power was assessed as a moderator to the partner effect between male exercise attitudes and female exercise behaviors, controlling for female exercise attitudes, the overall model was significant, $F(4,39) = 3.61$, $p = .014$, accounting for 27.0% of the variance in female exercise behaviors. However, neither the predictor, male exercise attitudes ($p = .785$), nor the interaction between the moderator and the predictor (see Table 6), were significant in predicting female exercise behaviors.

As with female power, a series of moderation analyses was also used to assess the moderating effects of male power on the actor and partner effects of the exercise subscales of

health attitudes and health behaviors. The first model assessed the moderating effects of male power on the male actor effect of male exercise attitudes predicting male exercise behaviors, controlling for female exercise attitudes. The overall model was significant, $F(4,39) = 3.96$, $p = .009$, and accounted for 28.9% of variance in male exercise behaviors. Additionally, male exercise attitudes, $\beta = .342$, $p = .018$, significantly predicted male exercise behaviors, but male power did not moderate this relation (Table 6). When assessing the moderating effect of male power onto the partner effect of male exercise attitudes predicting female exercise behaviors while controlling for female exercise attitudes, the overall model was significant, $F(4,39) = 3.44$, $p = .017$ and accounted for 26.1% of the variance in female exercise behaviors. However, neither the predictor, male exercise behaviors, $p = .969$, nor the interaction between the predictor and moderator, significantly predicted female exercise behaviors (Table 6).

Similar models were used to assess the moderating effects of male power on female actor and partner effects regarding exercise attitudes and behaviors, using male exercise attitudes as a covariate. The first model that addressed the moderating effects of male power on the female actor effect was significant, $F(4,39) = 4.62$, $p = .004$, and accounted for 32.2% of the variance in female exercise behaviors. However, only female exercise attitudes, $\beta = .580$, $p < .001$, predicted female exercise behaviors, not the interaction between the female exercise attitudes and male power (Table 6). The model that assessed the moderating effect of male power on the partner effect of female exercise attitudes predicting male exercise behavior, while controlling or male exercise attitudes, was significant, $F(4,39) = 3.97$, $p = .009$. This model also accounted for 28.9% of the variance in the outcome variable, male exercise behavior. However, only female exercise attitudes significantly predicted male exercise behaviors, $\beta = .386$, $p = .010$, not the interaction between female exercise attitudes and male power (Table 6).

Table 6

Gendered Power Moderating Exercise Attitude-Behavior Actor & Partner Effects

	ΔR^2	Coefficient	*p*
Female Power Moderator			
$F_{HA\text{-}exc} \rightarrow F_{HB\text{-}exc}$	.002	.049	.755
$F_{HA\text{-}exc} \rightarrow M_{HB\text{-}exc}$	.115	.380	.010
$M_{HA\text{-}exc} \rightarrow M_{HB\text{-}exc}$	.011	.133	.438
$M_{HA\text{-}exc} \rightarrow F_{HB\text{-}exc}$	.002	-.061	.728
Male Power Moderator			
$F_{HA\text{-}exc} \rightarrow F_{HB\text{-}exc}$	.064	-.302	.062
$F_{HA\text{-}exc} \rightarrow M_{HB\text{-}exc}$	.001	-.038	.815
$M_{HA\text{-}exc} \rightarrow M_{HB\text{-}exc}$	.000	.023	.880
$M_{HA\text{-}exc} \rightarrow F_{HB\text{-}exc}$	.004	.067	.671

Note. F = Female scores, M = Male scores. HA = Health Attitudes scale, HB = Health Behaviors scale. exc = Exercise subscale. Directional arrow indicates predictor variable predicting the outcome variable. When the first letter of each variable is the same (i.e., F → F), this indicates an actor effect. When the first letter of each variable is not the same (i.e., F → M), this indicated a partner effect.

Eating Health Attitudes Predicting Eating Health Behaviors. The last set of moderation models assessed the actor and partner effects of the eating subscales of health attitudes and health behaviors. Using female power as a moderator on the female actor effect

between eating attitudes and eating behaviors, while controlling for male eating attitudes, the overall model was not significant, $F(4,39) = 1.42$, $p = .244$. Although the model assessing female power as a moderator between female eating attitudes and male eating behaviors was significant, $F(4,39) = 2.67$, $p = .047$, female power did not interact with female eating attitudes to significantly predict male eating behaviors (Table 7). Likewise, the model assessing female power as a moderator on the male actor effect, predicting male eating behaviors from male eating attitudes, was marginally non-significant, $F(4,39) = 2.57$, $p = .053$. Lastly, the model assessing female power as a moderator on the male partner effect, predicting male eating behaviors from female eating attitudes, was not significant, $F(4,39) = 1.32$, $p = .279$. See Table 7 for a full breakdown of all moderation analyses.

Using male power as a moderator on the male actor effect between eating attitudes and eating behaviors, while controlling for female eating attitudes, the overall model was significant, $F(4,39) = 3.06$, $p = .028$, and accounted for 23.9% of the variance in male eating behaviors. However, only male eating attitude predicted male eating behaviors, $\beta = .372$, $p = .017$, not the interaction between male power and male eating behaviors (Table 7). Regarding the partner effect of male eating attitudes predicting female eating behaviors while controlling for female eating attitudes, the overall model was not significant, $F(4,39) = 1.02$, $p = .411$. Similarly, the model assessing male power as a moderator on the actor effect of female eating attitudes predicting female eating behaviors controlling for male eating attitudes, was not significant, $F(4,39) = 1.16$, $p = .344$. The last model, which assessed male power as a moderator on the partner effect of female eating attitudes predicting male eating behaviors, while controlling for male eating attitudes, was significant, $F(4,39) = 2.83$, $p = .037$, and accounted for 22.5% of the variability in male eating behaviors. See Table 7 for a full breakdown of all moderation analyses.

Table 7

Gendered Power Moderating Eating Attitude-Behavior Actor & Partner Effects

	ΔR^2	Coefficient	*p*
Female Power Moderator			
$F_{HA\text{-}eat} \rightarrow F_{HB\text{-}eat}$	.076	.304	.072
$F_{HA\text{-}eat} \rightarrow M_{HB\text{-}eat}$	.006	.087	.578
$M_{HA\text{-}eat} \rightarrow M_{HB\text{-}eat}$	.000	.001	.994
$M_{HA\text{-}eat} \rightarrow F_{HB\text{-}eat}$	.068	.331	.090
Male Power Moderator			
$F_{HA\text{-}eat} \rightarrow F_{HB\text{-}eat}$	.048	-.188	.154
$F_{HA\text{-}eat} \rightarrow M_{HB\text{-}eat}$	.005	.057	.636
$M_{HA\text{-}eat} \rightarrow M_{HB\text{-}eat}$	.018	-.129	.339
$M_{HA\text{-}eat} \rightarrow F_{HB\text{-}eat}$	.037	-.185	.217

Note. F = Female scores, M = Male scores. HA = Health Attitudes scale, HB = Health Behaviors scale. eat = Eating subscale. Directional arrow indicates predictor variable predicting the outcome variable. When the first letter of each variable is the same (i.e., F → F), this indicates an actor effect. When the first letter of each variable is not the same (i.e., F → M), this indicated a partner effect.

Dyad Attitude and Behavior Similarities Predicting Relationship Quality

A similarity score was computed for each dyad in SPSS by restructuring the data to a stacked format, then correlating each couple's responses on specific measure items. Similarity

correlation scores were computed for the following variables: health attitudes, exercise health attitudes, eating health attitudes, health behaviors, exercise health behaviors, and eating health behaviors (Table 8).

Table 8

Descriptive Statistics for Dyad Similarity Correlations

	M	*SD*
Health Attitude	0.52	0.20
Exercise	0.45	0.25
Eating	0.55	0.23
Health Behavior	0.20	0.26
Exercise	-0.01	0.38
Eating	0.29	0.20

First, a series of bivariate correlations was conducted to assess the associations between dyad similarity scores regarding health attitudes (general, exercise, eating), and health behaviors (general, exercise, eating). Dyad similarity scores on the health attitudes subscale of exercise were only significantly associated with dyad eating attitudes, exhibiting a moderate correlation. Dyad similarity scores on exercise attitudes were not correlated with dyad similarity scores on health behaviors, exercise behaviors, or eating behaviors. Further, dyad similarity scores on eating attitudes were unrelated to dyad similarity scores on general health behaviors, exercise behaviors, and eating behaviors. Lastly, dyad similarity scores on exercise behaviors were not significantly associated with dyad similarity scores on eating behaviors (Table 9).

Next, each of the similarity scores were correlated with relationship quality scores for females and males separately. Female relationship quality scores were not associated with dyad similarity scores on general health attitudes, exercise attitudes, eating attitudes, general health behaviors, exercise behaviors or eating behaviors. Although nonsignificant, all correlation coefficients between these variables were negative. Similarly, male relationship quality scores were not associated with dyad similarity scores on general health attitudes, exercise attitudes, eating attitudes, general health behaviors, exercise behaviors, or eating behaviors. However, although nonsignificant, only dyad similarity scores on health behaviors and eating behaviors displayed a slight negative relationship. All other variables displayed nonsignificant positive relationships with male relationship quality (Table 9).

Table 9

Bivariate Correlations among Dyad Similarity Scores on each measure by Gender

	1.	2.	3.	4.	5.	6.	7.
1. Health Attitudes	-	.77**	.83**	.26	.19	.24	.08
2. Health Attitudes - Exercise	.77**	-	.33*	.22	.15	.17	.00
3. Health Attitudes - Eating	.83**	.33*	-	.27	.21	.21	.02
4. Health Behaviors	.26	.22	.27	-	.78**	.67**	-.01
5. Health Behaviors – Exercise	.19	.15	.21	.78**	-	.16	.09
6. Health Behaviors – Eating	.24	.17	.21	.67**	.16	-	-.05
7. Relationship Quality	-.28	-.21	-.25	-.20	-.03	-.24	-

Note. Correlations are presented below the diagonal for females and above the diagonal for males. *$p < .05$, **$p < .01$

Discussion

A primary project goal was to investigate dyadic relations among health attitudes and behaviors regarding exercise and eating in the context of heterosexual romantic couples. Additionally, gendered power was examined as a moderator on the actor and partner effects. The first study hypothesis addressed APIM actor effects, proposing that the gendered health attitudes would predict the same gendered health behaviors. The results indicate that female actor effects were significant in that female general health attitudes predicted general health behaviors, and female exercise attitudes predicted exercise behaviors. Thus, the hypotheses regarding female actor effects were supported. Regarding male actor effects, general health attitudes significantly predicted general health behaviors, male exercise attitudes significantly predicted exercise behaviors, and male eating attitudes significantly predicted eating behaviors. Thus, the hypotheses regarding male actor effects were supported. The second hypothesis predicted that the health attitudes of both romantic partners would influence the health behaviors of their romantic partners, thus predicting significant partner effects. Results show that male health attitudes (general, exercise, and eating) did not significantly predict any female health behaviors (general, exercise, and eating). Contrasting this, female general health attitudes significantly predicted male general health behaviors, and female exercise attitudes significantly predicted male exercise behaviors. Thus, male attitudes did not influence female behaviors, only females influenced male general health behaviors and exercise behaviors. Additionally, no variables predicted female eating behaviors. The hypotheses regarding female and male partner effects were only partially supported.

The last hypothesis relevant to the primary goal was that each partners' personal power would moderate the actor and partner effects for both dyad members. It was found that overall, females reported more power compared to males. Female power did not moderate any of the actor or partner effects between general health attitudes predicting general health behaviors. Additionally, female power did not moderate the relation between the female actor effect between exercise attitudes and behaviors, nor between the male actor effect between exercise attitudes and behaviors. Female power also did not moderate the partner effect of male exercise attitudes predicting female exercise behaviors. However, female power did moderate the partner effect of female exercise attitudes predicting male exercise behaviors, such that female exercise attitudes were a stronger predictor of male exercise behaviors for females with higher versus lower power. Lastly, female power did not moderate any actor or partner effects between eating attitudes and eating behaviors for either gender. Regarding male power as a moderator on the actor and partner effects of general health attitudes and behaviors, it only moderated the female actor effect of female health attitudes predicting female health behaviors. Thus, female exercise attitudes were more predictive of female exercise behaviors when males reported lower levels of power. Further, male power did not moderate the relation between female and male actor and partner effects between exercise attitudes and exercise behaviors. The same patterns held true regarding male power moderating the relations between female and male actor and partner effects of eating attitudes and eating behaviors. Given that females reported more overall power than males, this supports the prediction that the more powerful partner would have more influence on the partner effects.

The majority of variables within this study displayed expected relations with one another. However, the nonsignificant correlation of eating attitude-behavior consistency for females could

be due to females' complex relationships with eating and the proximity of data collection to the COVID-19 outbreak. Prior research shows that females, compared to males, are at an increased risk for displaying maladaptive eating behaviors, such as excessive dieting, eating more during stressful events, and frequency of eating disorders (Grzymisławska et al., 2020; Umberson, 1992). Globally, during COVID-19, research found that females were more likely than males to lose control of their normal diet, consumed more food due to fear, anxiety, and boredom, and preferred to consume more unhealthy food (Attanasi et al., 2021; Hassen et al., 2022; Salman et al., 2021). Further, emotions such as tension, anxiety, and depression resulting from COVID-19 were linked to disturbed eating for both genders (De Pasquale et al., 2021). Thus, the females in the sample may have more impacts to psychological and physical health from COVID-19, which may account for the lack of consistency between females eating attitudes and behaviors.

However, general eating and exercise attitudes and behaviors reported between males and females support findings of previous research. For females, healthy lifestyle is associated with monitoring nutrition and food intake whereas males associate healthy lifestyle with physical activity (Grzymisławska et al., 2020). However, in the current study, females and males did not differ in their reports of health attitudes and behaviors. Interestingly, females and males did score significantly different from one another regarding personal power and female exercise attitudes influenced male exercise behaviors. This may be due to the fact that females are more likely than males to control the health of others (Umberson, 1992). According to Umberson's (1987) theoretical model of social control, she argues that social relationships control health behavior through direct and indirect pathways, similar to the theoretical background and pathways proposed by the Actor-Partner Interdependence Model (Cook & Kenny, 2005). Umberson (1987) explains that the direct pathway of social relationships allowing for social control of health

behaviors occurs “by providing informal sanctions” of deviant health behavior. The indirect pathway of social relationships that allows for social control over health behaviors occurs by the individual’s internalization of health behavior norms. This also supports the argument for interdependence within social relationships allowing for the process of self-expansion, causing romantic couples to alter their own self-concept and adopt each other’s health habits (Aron et al., 1991).

Additionally, prior research argues that social context, like romantic dyads, and gender roles associated with the romantic dyad can impact both male and female physical health habits (Kulik, 2011; Howland et al., 2016). Typical gender role socialization instills health and safety concerns in females and competition, aggression, and risk-taking in males (Harrison, 1978; Nathanson, 1977; Waldron, 1988). Based on these gender differences, females are also more likely to adopt nurturing roles within romantic relationships, which further supports the argument that females influence males’ health (Umberson, 1992). However, current literature on gender roles argues for shifts away from traditional power, in support of gendered power, as cultural and gender norms change. (Kulik, 2011; Luttrell et al., 2018). The current study supports this shift in perspective as the analysis of gendered power reveals that, although females in this sample have slightly more power, overall, these dyads hold egalitarian power relations. However, females could still be adopting nurturing roles in their relationships, exhibited more social control over male exercise behaviors.

The second research goal of the current study examined the influence and degree of similarity between romantic partners’ health attitudes and behaviors, as well as the association between similarity and relationship quality. Similarity scores between male and female variables (i.e., health attitudes, exercise attitudes, eating attitudes, health behaviors, exercise behaviors,

eating behaviors) indicate a connection between couples on all variables except the exercise subscale of health behaviors. It was hypothesized that romantic couples with greater similarity scores in health attitudes would also report higher scores of relationship quality for both genders. However, this hypothesis was not supported for both females and males. Likewise, it was expected that greater similarity scores on health behaviors for romantic dyads would be associated with higher reports of relationship quality for both genders. However, this hypothesis was also not supported for both males and females. Lastly, it was hypothesized that a higher dyad similarity score on health attitudes would be associated with higher dyad similarity scores on health behaviors. This hypothesis was also unsupported.

Regarding dyad similarity scores, the findings of the current study do not support prior research findings. Subjective closeness, domains of similarity, such as attitudes, values, and goals, and similarity-promoting processes, like self-expansion and balance theory, argue that similarity between romantic dyads is critical to promoting long-term relationships of high quality (Fitzsimons & Anderson, 2011; Fuglestad, 2018; Gaunt, 2006; Harvey & Omarzu, 1997; Luo, 2009; Luo & Klohnen, 2005; Klohnen & Luo, 2003; Muise et al., 2019; Treger & James, 2018; Watson et al., 2004). Although the current study provides some evidence of similarity between couples on all measure except exercise behaviors, dyad similarity scores on all key variables were completely unrelated to relationship quality. This directly contradicts previous research supporting connections between dyad similarity and relationship quality. However, the current study's lack of findings could be due to the restricted range of scores on relationship quality and the small sample size. Although attitudinal and behavior similarity was unrelated to relationship quality, dyads showed some connection between one another in all realms except the health behavior subscale of exercise. Thus, there is some overlap in the romantic couples included in

this study regarding general health attitudes, exercise attitudes, eating attitudes, general health behaviors, and eating behaviors.

Strengths and Limitations

One of the strengths of the current study was that a majority of the statistical assumptions were upheld. Additionally, all variables were standardized to allow for further comparison between constructs. Further, all variables were measured using previously validated, reliable measures and continued to display adequate validity and reliability within the current study. However, male scores on the Health Attitudes scale and Exercise and Eating Health Attitudes subscales displayed relatively low inter-item reliability, potentially limiting the validity and reliability of study findings. Nonetheless, general participant responses and female responses both displayed adequate internal reliability on the same measures. Another major strength of the current study was the use of both partners in the romantic relationships. However, as with any study, there are additional limitations. All data was collected via self-report measures, which has the potential to impact validity and reliability of the study (Gregorich, 2006). Additionally, participants represent a convenience sample from a mid-sized, southeastern university, restricting the generalizability (Heckman, 2010). Since the university's psychology research system was used to recruit initial participants, a majority of the romantic partners were female, White/Caucasian, psychology majors seeking a college education. Thus, this has the potential to impact the generalizability of the study findings as this demographic is overrepresented in the sample compared to the population. Further, since participants voluntarily chose to participate in the study, there is potential for self-selection biases (Heckman, 2010). Some participants may have been motivated to complete the study merely to receive compensation, either as extra credit in their other courses or to receive the $5 Amazon e-gift card. Additionally, since the sample

consisted solely of heterosexual couples, the study findings do not generalize to non-heterosexual couples. Further, since a majority of couples reported that they were dating exclusively and had been together, on average, 28.72 months, the study findings do not generalize to others in different romantic relationship statuses or couples who have been dating for a longer period of time.

Unfortunately, power was not fully achieved based on the initial a priori dyadic power analysis. This analysis dictated a sample size of approximately $n = 25$ romantic dyads (50 participants) was required to detect an average actor effect size of 0.4, in terms of partial correlation, with 80% power. This was upheld as the sample size was $n = 45$. However, the same power analysis required a sample size of approximately $n = 100$ romantic dyads (200 participants) in order to detect an average partner effect size of 0.2, in terms of partial correlation, with 80% power.

Lastly, since data was not collected prior to the COVID-19 outbreak, we cannot assess how couples may have reacted due to this confound. This is further obscured by the widespread influence that COVID-19 had on physical health as well (Attanasi et al., 2021; De Pasquale et al., 2021; Hassen et al., 2022; Rogers et al., 2021; Salman et al., 2021). Since physical and mental health bidirectionally impact one another, the influences of COVID-19 are of special importance.

Implications

The findings of this study support the argument to apply interpersonal theories to the realm of health to determine the influence of social relationships on factors such as eating and exercise attitudes and behaviors. Additionally, individuals involved in social relationships are more likely to exhibit positive health behaviors (Berkman & Breslow, 1983; Robles et al., 2014).

Further, historically, males have benefitted more than females in social relationships and are at a reduced risk of mortality rate (Umberson, 1992; Wingard, 1984). Promoting high quality romantic relationships has the potential to serve as a protective factor against negative health outcomes. Such examples include the mutual enhancement of each other's physical health through stabilizing cardiovascular, immune, and endocrine function as well as reinforcing healthy lifestyle habits (Robles et al., 2014; Craddock et al., 2015). Additionally, intervention and therapy programs that help romantic partners communicate their motives for interpersonal regulation of health behavior in a positive manner as well as project personal motives for self-regulation of positive health behaviors can benefit both individuals in the romantic dyad (Berzins et al., 2018; Holt-Lunstad et al., 2010; Howland et al., 2016; Robles et al., 2014; Rodriguez et al., 2014). This may be done through promoting a sense of genuine concern regarding health status (Berzins et al., 2018; Umberson, 1987).

Future Directions

Based on the limitations, there are several recommendations for future studies. First, since there is no way to assess whether the romantic partners are being solely influenced one another and not by other close individuals, it is recommended to assess romantic partners and their friends and family. Although the Perceived Relationship Quality Components Inventory (Fletcher et al., 2000) is a widely used, reliable and valid measure, the current study had restricted range in that it was heavily skewed to the left and almost everyone rated their relationships quite highly. Thus, future studies should use more sensitive measures of relationship quality and/or relationship satisfaction. Further, since females held more power within this study regarding health, the full Relationship Power Inventory should be used to tease apart gendered power in different domains (Farrell et al., 2015). Additionally, since females tend

to have more influence over males regarding health behaviors, researchers should continue to explore power in the realm of health. It is recommended that data collection is broadened to include more diverse samples of heterosexual and non-heterosexual couples, along with more diverse relationship lengths and racial/ethnic couples.

Regarding data analysis techniques, using a series of multiple regressions to assess Actor-Partner Interdependence Model pathways is the least general approach (Cook & Kenny, 2005). It does not allow for a test of differences between the actor effects and partner effects of each dyad member. Additionally, it cannot assess whether a dyad member's actor or partner effect is the larger effect. Lastly, this technique does not allow for pooled effects across dyad members (Cook & Kenny, 2005). Thus, it is recommended that future studies use structural equation modeling or multilevel modeling to correct these issues and further tease apart interdependence of actor and partner effects.

Future studies should consider including several additional variables of importance. It is recommended that participant's locus of control and self-efficacy be assessed, especially in the context of health and enacting health behaviors. Acting on your attitudes and beliefs are directly linked to your locus of control and degree of self-efficacy (AbuSabha & Achterberg, 1997). Further, since prior research shows that high self-monitors have lower attitude-behavior correlations compared to low self-monitors, future studies should include a measure of self-monitoring (Snyder & Swann, 1975; Snyder & Tanke, 1976). Given that data collection occurred close to the peak COVID-19 outbreak, participant's self-regulatory skills should also be assessed as research shows that subsequent self-regulation is harder following a prior situation that required self-regulation (Vohs & Heatherton, 2000; Gailliot et al., 2008). Thus, if individuals were using more self-regulation resources to cope with impacts of the COVID-19 pandemic,

individuals may have less regulation over physical health behaviors. This may also explain lower correlations between attitudes and behaviors within this study. Additionally, self-regulation is relevant and potentially beneficial to not only the individual but also to the individual in interpersonal contexts, such as when dealing with strangers, friends and, even disgruntled romantic partners (Finkel & Campbell, 2001; Tice et al., 1995). Given the social, interpersonal components of health future research should continue to apply social, interpersonal-based health theories to dyadic research.

Conclusions

The current study applied a dyadic approach using the Actor-Partner Interdependence Model (Cook & Kenny, 2005) to examine the interplay between romantic partners' health attitudes and behaviors. For both females and males in heterosexual romantic relationships, the majority of actor effects were significant, such that female health attitudes predicted female health behaviors, and male health attitudes predicted male health behaviors. Additionally, male power moderated the female actor effect such that female health attitudes were more predictive of female health behaviors when males had lower perceived power. Further, female power moderated the female partner effect such that female exercise attitudes were more predictive of male exercise behaviors when females had higher perceived power in the relationship. Lastly, dyad similarity scores on health attitudes and health behaviors were unrelated to each other and were unrelated to male and female relationship quality. Future research with larger samples is needed to fully establish dyadic relations and general associations between key variables relevant to romantic relationships.

References

Abu Sabha, R., & Achterberg, C. (1997). Review of self-efficacy and locus of control for nutrition-and health-related behavior. *Journal of the American Dietetic Association, 97*(10), 1122-1132. https://doi.org/10.1016/S0002-8223(97)00273-

Alessio, J. C. (1990). A synthesis and formalization of Heiderian balance and social exchange theory. *Social Forces, 68*(4), 1267-1268. https://doi.org/10.2307/2579144

American Psychological Association. (2017). *Ethical principles of psychologists and code of conduct.* American Psychological Association. https://www.apa.org/ethics/code

Anderson, D. F., & Cychosz, C. M. (1994). Development of an Exercise Identity scale. *Perceptual and Motor Skills, 78*(3, Pt 1), 747-751. https://doi.org/10.2466/pms.1994.78.3.747

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*(2), 241-253. https://doi.org/10.1037/0022-3514.60.2.241

Attanasi, G., Maffioletti, A., Shalukhina, T., Bel, C., & Faredj, C. (2021) Gender differences in the impact of COVID-19 lockdown on potentially addictive behaviors: An emotion-mediated analysis. *Frontiers in Psychology, 12*. https://www.frontiersin.org/article/10.3389/fpsyg.2012.703897

Berkman, L., & Breslow, L. (1983). *Health and Ways of Living*. Oxford University Press, New York, NY.

Berzins, T. L., LaBuda, J. E., & Gere, J. (2018). An examination of accuracy and bias in perceptions of a partner's motives for health behaviour regulation. *British Journal of Health Psychology*, *23*(4), 872–887. https://doi.org/10.1111/bjhp.12321

Blood, R. O., & Wolfe, D. M. (1960). *Husbands and wives: The dynamics of married living.* New York, NY: Free

Boyes, A. D., Fletcher, G. J. O., & Latner, J. D. (2007). Male and female body image and dieting in the context of intimate relationships. *Journal of Family Psychology*, *21*(4), 764–768. https://doi.org/10.1037/0893-3200.21.4.764

Bui, K.-V. T., Raven, B. H., & Schwarzwald, J. (1994). Influence strategies in dating relationships: The effects of relationship satisfaction, gender, and perspective. *Journal of Social Behavior & Personality*, *9*(3), 429–442.

Cook, W. L., & Kenny, D. A. (2005). The Actor-Partner Interdependence Model: A model of bidirectional effects in developmental studies. *International Journal of Behavioral Development, 29*(2), 101–109. https://doi.org/https://doi.org/10.1080/01650250444000405

Craddock, E., vanDellen, 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*(2), 118–130. https://doi.org/10.1080/01973533.2015.1011271

De Pasquale, C., Sciacca, F., Conti, D., Pistorio, M. L., Hichy, Z., Cardullo, R. L, & Di Nuovo, S. (2021). Relations between mood states and eating behavior during COVID-19 pandemic in a sample of Italian college students. *Frontiers in Psychology, 12*, https://doi.org/10.3389/fpsyg.2021.684195

Deutsch, M., & Solomon, L. (1959). Reactions to evaluations by others as influenced by self-evaluations. *Sociometry, 22,* 93-112. https://doi.org/10.2307/2786014

Deutsch, F. M., & Mackesy, M. E. (1985). Friendship and the development of self-schemas: The effects of talking about others. *Personality and Social Psychology Bulletin, 11*(4), 399-408. https://doi.org/10.1177/0146167285114006

Farrell, A. K., Simpson, J. A., & Rothman, A. J. (2015). The Relationship Power Inventory: Development and validation. *Personal Relationships, 22*(3), 387-413. https://doi.org/10.1111/pere.12072

Fletcher, G. J. O., Simpson, J. A., & Thomas, G. (2000). The measurement of perceived relationship quality components: A confirmatory factor analytic approach. *Personality and Social Psycholgoy Bulletin, 26*(3), 340-354. https://doi.org/10.1177/0146167200265007

Finkel, E. J., & Campbell, W. K. (2001) Self-control and accommodation in close relationships: An interdependence analysis. *Journal of Personality and Social Psychology, 81,* 263-277.

Fitzsimons, G. M., & Anderson, J. E. (2011). Interdependent goals and relationship conflict. In J. P. Forgas, A. W. Kruglanski, & K. D. Williams (Eds.), *The psychology of social conflict and aggression.* (Vol. 13, pp. 185–199). Psychology Press.

French, J. R. P., Jr., & Raven, B. H. (1959). The bases of social power. In D. Cartwright & D. Cartwright (Ed) (Eds.), *Studies in social power*. (pp. 150-167). Ann Arbor: University of Michigan Press.

Fuglestad, P.T. (2018, March). *Regulatory focus, well-being, and perceptions of value similarity in romantic relationships.* Poster presented at the annual convention of the Society for Personality and Social Psychology, Atlanta, GA.

Gailliot, M. T., Mead, N. L., & Baumeister, R. F. (2008). Self-regulation. In O. P. John, R. W. Robins, & L. A. Pervin (Eds.), *Handbook of personality: Theory and research* (pp. 472–491). The Guilford Press.

Gaunt, R. (2006). Couple similarity and marital satisfaction: Are similar spouses happier? *Journal of Personality, 74*(5), 1401-1420. https://doi.org/10.1111/j.1467-6494.2006.00414.x

Gregorich, S. E. (2006). Do Self-Report Instruments Allow Meaningful Comparisons Across Diverse Population Groups? Testing Measurement Invariance Using the Confirmatory Factor Analysis Framework. *Medical Care, 44*(11), 78–94. https://doi.org/10.1097/01.mlr.0000245454.12228.8f

Grzymisławska, M., Puch, E. A., Zawada, A., & Grzymisławski, M. (2020). Do nutritional behaviors depend on biological sex and cultural gender? *Advances in Clinical and Experimental Medicine*, *29*(1), 165–172. https://doi.org/10.17219/acem/111817

Handley, V. A., Soloski, K. L., Sewell, S., Gowdy, A., Jordan, S. S., & Elshershaby, S. (2019). The interactions between power and couple satisfaction for women. *Journal of Feminist Family Therapy*, *31*(1), 1–19. https://doi.org/10.1080/08952833.2018.1526510

Harrison, J. (1978). *W*arning: The male sex role may be dangerous to your health. *Journal of Social Issues, 34,* 65-86. https://doi.org/10.1111/j.1540-4560.1978.tb02541.x

Harvard Health Publishing. (2019, August 26). *Mars vs. Venus: The gender gap in health*. https://www.health.harvard.edu/newsletter_article/mars-vs-venus-the-gender-gap-in-health

Harvey, J. H., & Omarzu, J. (1997). Minding the close relationships. *Personality and Social Psychology Review, 1*(3), 224-240. https://doi.org/10.1207/s15327957pspr0103_3

Hassen T. B., Bilali, H. E., Allahyari, M. S., Kamel, I. M., Ismail, H. B., Debbabi, H., & Sassi, K. (2022). Gendered impacts of the COVID-19 Pandemic on Food Behaviors in North Africa: Cases of Egypt, Morocco, and Tunisia. *International Journal of Environemental Resarch and Public Health, 19*(4), 2192. https://doi.org/10.3390.ijerph19042192

Heckman, J. J. (2010). Selection Bias and Self-Selection. In S. N. Durlauf & L. E. Blume (Eds.), *Microeconometrics* (pp. 242–266). Palgrave Macmillan UK. https://doi.org/10.1057/9780230280816_29

Heider, F. *The psychology of interpersonal relations*. New York: Wiley, 1958.

Heider, F. (1946). Attitudes and Cognitive Organization. The *Journal of Psychology: Interdisciplinary and Applied, 21*, 107-112. https://doi.org/10.1080/00223980.1946.9917275

Holt-Lunstad, J., Smith, T. B., & Layton, J. B. (2010). Social relationships and mortality risk: A meta-analytic review. *PLoS Medicine, 7*(7), e1000316. https://doi.org/10.1371/journal.pmed. 1000316

Howard, J. A., Blumstein, P., & Schwartz, P. (1986). Sex, power, and influence tactics in intimate relationships. *Journal of Personality and Social Psychology, 5l*(1), l02-109. https://doi.org/10.1037/0022-3514.51.1.102

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*(7), 733–741. https://doi.org/10.1037/hea0000334.supp

Huston, T. L. (1983). Power. In H. H. Kelley, E. Berscheid, A. Christensen, J. H. Harvey, T. L. Huston, G. Levinger, Peterson, D. R. (Eds.), Close relationships (pp. 169– 219). New York, NY: W. H. Freeman

Jackson, T. (2006). Relationships between perceived close social support and health practices within community samples of American women and men. *The Journal of Psychology, 140*(3), 229-246. https://doi.org/10.3200/JRLP.140.3.229-246

Jones, S. C. (1966). Some determinants of interpersonal evaluating behavior. *Journal of Personality and Social Psychology, 3*(4), 397–403. https://doi.org/10.1037/h0023036

Jordan, N. (1953). Behavioral forces that are a function of attitudes and of cognitive organization. *Human Relations, 6*, 273-287. https://doi.org/10.1177/001872675300600304

Karney, B. R., Hops, H., Redding, C. A., Reis, H. T., Rothman, A. J., & Simpson, J. A. (2010). A Framework for Incorporating Dyads in Models of HIV-Prevention. *AIDS and Behavior*, *14*, 189–203. https://doi.org/https://doi.org/10.1007/s10461-010-9802-0

Kelley, H. H., Holmes, J. G., Kerr, N. L., Reis, H. T., Rusbult, C. E., & Van Lange, P. A. M. (2003). *An atlas on interpersonal situations.* New York: Cambridge University Press.

Klohnen, E. C., & Luo, S. (2003). Interpersonal attraction and personality: What is attractive-self similarity, ideal similarity, complementarity, or attachment security? *Journal of Personality and Social Psychology, 85*(4), 709-722. https://doi.org/10.1037/0022-3514.85.4.709

Kulik, L. (2011). Developments in spousal power relations: Are we moving toward equality? *Marriage & Family Review*, *47*(7), 419–435. https://doi.org/https://doi.org/10.1080/01494929.2011.619297

Lennon, C. A., Stewart, A. L., & Ledermann, T. (2013). The role of power in intimate relationships. *Journal of Social and Personal Relationships*, *30*(1), 95–114. https://doi.org/10.1177/0265407512452990

Luo, S. (2009). Partner selection and relationship satisfaction in early dating couples: The role of couple similarity. *Personality and Individual Differences 47*(2), 133-138. https://doi.org/10.1016/j.paid.2009.02.012

Luo, S., & Klohnen, E. C. (2005). Assortative mating and marital quality in newlyweds: A couple-centered approach. *Journal of Personality and Social Psychology, 88*(2), 304-326. https://doi.org/10.1037/0022-3514.88.2.304

Luttrell, T. B., Distelberg, B., Wilson, C., Knudson-Martin, C., & Moline, M. (2018). Exploring the Relationship Balance Assessment. *Contemporary Family Therapy*, *40*, 10–27. https://doi.org/https://doi.org/10.1007/s10591-017-9421-2

Muise, A., Harasymchuk, C., Day, L. C., Bacev-Giles, C., Gere, J., & Impett, E. A. (2019). Broadening your horizons: Self-expanding activities promote desire and satisfaction in established romantic relationships. *Journal of Personality and Social Psychology, 116*(2), 237-258. https://doi.org/10.1037/pspi0000148.supp

Nathanson, C. (1977). Sex roles as variables in preventive health behavior. *Journal of Community Health, 3*, 142-155.

Nomaguchi, K. M., & Bianchi, S. M. (2004). Exercise time: Gender differences in the effects of marriage, parenthood, and employment. *Journal of Marriage and Family*, *66*(2), 413–430. https://doi.org/10.1111/j.1741-3737.2004.00029.x

Ohrnberger, J., Fichera, E., & Sutton, M. (2017). The relationship between physical and mental health: A mediation analysis. *Social Science & Medicine*, *195*, 42–49. https://doi.org/10.1016/j.socscimed.2017.11.008

Oriña, M. M., Wood, W., & Simpson, J. (2002). Strategies of influence in close relationships. *Journal of Experimental Social Psychology*, *38*(5), 459–472. https://doi.org/https://doi.org/10.1016/S0022-1031(02)00015-X

Price, K. O., Harburg, E., Newcomb, T. M. (1966). Psychological balance in situations of negative interpersonal attitudes. *Journal of Personality and Social Psychology, 3*(3), 265-270. https://doi.org/10.1037/h0023040

Rebar, A. L., Stanton, R., Geard, D., Short, C., Duncan, M. J., & Vandelanotte, C. (2015). A meta-meta-analysis of the effect of physical activity on depression and anxiety in non-

clinical adult populations. *Health psychology review*, *9*(3), 366–378. https://doi.org/10.1080/17437199.2015.1022901

Rehman, U. S., Holtzworth-Munroe, A., Herron, K., & Clements, K. (2009). 'My way or no way': Anarchic power, relationship satisfaction, and male violence. *Personal Relationships*, *16*(4), 475–488. https://doi.org/10.1111/j.1475-6811.2009.01235.x

Reis, H. T., & Shaver, P. (1988). Intimacy as an interpersonal process. In S. Duck, D. F. Hay, S. E. Hobfoll, W. Ickes, & B. M. Montgomery (Eds.), *Handbook of personal relationships: Theory, research and interventions.* (pp. 367–389). John Wiley & Sons.

Roberson, P. N. E., Shorter, R. L., Woods, S., & Priest, J. (2018). How health behaviors link romantic relationship dysfunction and physical health across 20 years for middle-aged and older adults. *Social Science & Medicine, 201,* 18-26. https://doi.org/10.1016/j.socscimed.2018.01.037

Robles, T. F., Slatcher, R. B., Trombello, J. M., & McGinn, M. M. (2014). Marital quality and health: A meta-analytic review. *Psychological Bulletin, 140*(1), 140–187. https://doi.org/10.1037/a0031859

Rodriguez, L. M., Neighbors, C., & Knee, C. R. (2014). Problematic alcohol use and marital distress: An interdependence theory perspective. *Addiction Research & Theory*, *22*(4), 294–312. https://doi.org/10.3109/16066359.2013.841890

Rogers, A. M., Laruen, B. N., Woo Baidal, J. A., Ozanne, E. M., & Hur, C. (2021) Persistent effects of the COVID-19 pandemic on diet exercise, risk for food insecurity, and quality of life: A longitudinal study among US adults. *Appetite, 167.* https://doi.or/10.1016/j.appet.2021.105639

Rollins, B. C., & Bahr, S. J. (1976). A theory of power relationships in marriage. *Journal of Marriage and the Family*, *38*(4), 619-627. https://doi.org/10.2307/350682

Rolls, B. J., Fedoroff, I. C., & Guthrie, J. F. (1991). Gender differences in eating behavior and body weight regulation. *Health Psychology*, *10*(2), 133–142. https://doi.org/10.1037/0278-6133.10.2.133

Ross, K. M., Ranby, K. W., Wooldridge, J. S., Robertson, C., & Lipkus, I. M. (2016). Effects of physical and mental health on relationship satisfaction: a dyadic, longitudinal examination of couples facing prostate cancer. *Psycho-oncology*, *25*(8), 898–904. https://doi.org/10.1002/pon.3931

Salman, A., Sgodo, K. O., Al-Ghadban, F., Al-Lahou, B., Alnashmi, M., Hermassi, S., & Chun, S. (2021). Effects of COVID-19 lockdown on physical activity and dietary behaviors in Kuwait: A cross-sectional study. *Nutrients, 13*(7), 2252. https://doi.org/10.3390/nu13072252

Situngkir, H., & Khanafiah, D. (2004). *Social Balance Theory: Revisiting Heider's Balance Theory for many agents. Departmental Technical Report*. Unpublished manuscript. Computational Sociology, Bandung Fe Institute. Retrieved from http://cogprints.org/3641/1/Heidcog.pdf

Snyder, M., & Swan, W. B. (1975). When actions reflect attitudes: The politics of impression management. *Journal of Personality and Social Psychology, 34*, 1034-1042.

Snyder, M., & Tanke, E. D. (1975). Behavior and attitude: Some people are more consistent than others. *Journal of Personality, 44*(3), 501-517. https://doi.org/10.1111/j.1467-6494.1976.tb00135.x

Strachan, S. M., & Brawley, L. R. (2009). Healthy-eater identity and self-efficacy predict healthy eating behavior: A prospective view. *Journal of Health Psychology, 14*(5), 684-695. https://doi.org/10.1177/1359105309104915

Tabachnick, B. G., & Fidell, L. S. (1996). *Using multivariate statistics.* New York: New York University Press.

Thibaut, J. W., & Kelley, H. H. (1959). *The social psychology of groups.* New York. NY: Wiley

Traeder, C. K., & Zeigler-Hill, V. (2019). The desire for power and perceptions of heterosexual romantic relationships: The moderating roles of perceived power and gender. *Sex Roles*, *82*, 66–80. https://doi.org/10.1007/s11199-019-01037-9

Treger, S., & Masciale, J. N. (2018). Domains of similarity and attraction in three types of relationships. *Interpersona: An International Journal of Personal Relationships, 12*(2), 254-266. https://doi.org/10.5964/ijpr.v12i2.321

Trice, D. M., Butler, J. L., Muraven, M. B., & Stillwell, A. M. (1995). When modesty prevails: Differential favorability of self-presentation to friends and strangers. *Journal of Personality and Social Psychology , 69,* 1120-1138.

Umberson, D. (1987). Family status and health behaviors: Social control as a dimension of social integration. *Journal of Health and Social Behavior, 28*, 306-319.

Umberson, D. (1992). Gender, marital status and the social control of health behavior. *Social Science and Medicine, 34*(8), 907-917. https://doi.org/10.1016/0277-9536(92)90259-S.

U.S. Department of Health and Human Services and U.S. Department of Agriculture. *2015 – 2020 Dietary Guidelines for Americans*. 8th Edition. December 2015. Available at https://health.gov/our-work/food-nutrition/previous-dietary-guidelines/2015.

Vohs, K. D., & Heatherton, T. F. (2000) Self-regulatory failure: A resource-depletion approach. *Psychological Science, 11,* 249-254.

Waldron, I. (1988). Gender and health-related behavior. In Gochman D. S. (Ed.) *In health behavior: Emerging research perspectives* (pp. 193-208).

Waller, W. W., & Hill, R. (1951). The family: A dynamic interpretation. New York, NY: Dryden Press.

Watson, D., Klohnen, E. C., Casillas, A., Simms, E. N., Haig, J., & Berry, D. S. (2004). Match makers and deal breakers: Analyses of assortative mating in newlywed couples. *Journal of Personality, 72*(5), 1029-1068. https://doi.org/10.1111/j.0022-3506.2004.00289.x

White, R. L., Babic, M. J., Parker, P. D., Lubans, D. R., Astell-Burt, T., & Lonsdale, C. (2017). Domain-specific physical activity and mental health: A meta-analysis. *American Journal of Preventive Medicine, 52*(5), 653–666.

Wingard, D. (1984). The sex differential in morbidity, mortality, and lifestyle. *Annual Review of Public Health, 5*, 433-458.