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Moving Research on Health and Close Relationships Forward— A Challenge and an Obligation: Introduction to the Special Issue

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Close relationships are integral to the health and adaptation of our species. The evidence is incontestable, and it is the building block upon which future theory, research, and practice rests. This foreword notes the distinct domains and independent histories of relationship science and health psychology and calls for further thorough integration within the broader context of team science. The articles in this special issue focus on interpersonal mechanisms, cultural specificity, personality and emotion regulation, couples dynamics in chronic disease, and the increasingly complex biological mechanisms involved in linking relationships to health outcomes. They point to the importance of life stage, especially childhood and late adulthood, for understanding unique relationship and health issues. The challenge remains to translate existing and future knowledge into interventions to improve social relationships for the benefit of physical and mental health.

Keywords: social support, family, health, close relationships, social relationships

Our close personal relationships are integral to our health and well-being, just as they are for nonhuman primates that live in social groups. As described in the lead article of this special issue, the presence and quality of close relationships are among the more reliable and robust predictors of disease and length of life (Holt-Lunstad, Robles, & Sbarra, 2017). Indeed, the magnitude of the links between relationships and health is comparable to that for established biomedical and behavioral risk factors of long-standing public health concern such as smoking, high cholesterol, and physical activity. However, there are many unexplored directions in research and practice on close relationships and health, and some avenues of past work have reached an impasse.

Close relationships are implicated in the onset, severity, and progression of a wide range of diseases, including cardiovascular disease and cancer, and in the severity, progression, treatment, and recovery from mental health disorders such as schizophrenia, depression, and addiction. This large body of scientific evidence speaks to the significance of this special issue of the *American Psychologist* and the

articles within it. As acknowledged explicitly in the U.S. health promotion goals for 2020 (U.S. Department of Health and Human Services, 2008), there is a need to “create social and physical environments that promote good health for all (p. 7).” However, social environments are not the same as close personal relationships, and this special issue is intentionally focused on the latter.

Close relationships are characterized by strong and enduring *interdependence* (Kelley & Thibaut, 1978; Rusbult & van Lange, 2008), defined as the extent to which intimates need and influence one another. There are multiple variations of interdependence, but it is typically frequent and enduring and has meaningful impact (Berscheid, 1999), as in the case of married or cohabiting couples or parents and children. Friendships, which often function as kin in many societies today, may also be interdependent. The effects of close social relationships—and of the continual social interactions involved—are reflected in an individual’s cognitions, emotions, behavior, and physiology and ultimately influence that person’s health in myriad ways.

The articles in this special issue represent state-of-the-art work on the central issues in the study of close relationships and health. They draw from relationship science and health psychology, two areas of scientific inquiry with independent histories and distinct domains. The science of interpersonal relationships seeks to understand and inform practice regarding human behavior in the presence of and in interaction with others in dyads or social groups. Health psychology, in comparison, examines how biological, social, and psychological factors influence health and illness to promote health, prevent illness, and improve health care

Editor’s note. This article is part of a collection published in a special issue of *American Psychologist* (September 2017) titled “Close Family Relationships and Health.” Bert N. Uchino and Christine Dunkel Schetter provided scholarly lead for the special issue, and Anne E. Kazak served as action editor for this article.

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systems. These two areas of inquiry share strong roots in psychology and strong ties to other disciplines, e.g., the health and social sciences, and both aim to advance a basic understanding of behavior to improve human lives.

Researchers have developed theories of relationships and health and accumulated considerable evidence of social risk (and resilience) factors for health and disease (e.g., Cohen, 2004; Umberson & Karas Montez, 2010). They have also tested mechanisms of such effects to some extent (e.g., Uchino et al., 2012, *in press*). However, much of this work emerged within relationship science or within health-related disciplines. Clearly, further integration is needed. For example, relationships researchers too often study healthy populations or utilize single biomarkers without biological collaboration. Health researchers in turn often oversimplify the complexities of social relationships in their theories (or lack thereof) and in their methods (e.g., Heaney, Phillips, & Carroll, 2010; Knox, 1993; Turner-Cobb, Sephton, Koopman, Blake-Mortimer, & Spiegel, 2000). For example, terms like *social support* may be used without specifying or distinguishing the nature (e.g., perceived, received), source (e.g., partner, network as a whole), or type (e.g., emotional, instrumental). The goal of this special issue was to bridge the gap between these two research specialties to improve the quality and usefulness of future research and practice.

The value of theory in the integration of science on close relationships and health cannot be overestimated. Integrative theoretical models are presented in four articles in this special issue. First, Pietromonaco and Collins (2017) cover both theory and evidence on the interpersonal processes involved in social connection and social disconnection. They model effects of these processes on intrapersonal

mediators (psychosocial, biological, health and lifestyle) and on coregulation in couples, with resulting effects on health, disease, and well-being. They propose individual differences and contextual influences as moderators of these processes.

Second, Campos and Kim (2017) address the effects of cultural factors as they shape people's expectations and priorities for relationships, and they also discuss interrelationships of cultural processes with specific relationship concepts, mainly social support and social integration. They further highlight how cultural representations can modify the effects of relationships on health. Considering culture is critical for developing a more universal understanding of these processes. For example, by including culture in future formulations on relationships and health, intervention efforts can become more precise and effective. In addition, developing cultural theory and research on relationships and health may also shed greater light on health disparities.

In a third article, Chen, Brody, and Miller (2017) propose a developmental stress-buffering model for investigating the social relationships and health of children and adolescents. Their model spotlights the role of social support and conflict in family relationships at these early life stages and explains how relationship concepts can modify the health effects of childhood stress via biological and health behavioral pathways. Of note, the stress concept has a central historical place in theory and research on relationships and health in terms of when and how social relationship processes can moderate effects of stress on health, i.e., stress buffering (Cohen & Wills, 1985; Hostinar, 2015).

Last, Smith and Baucom (2017) present an interpersonal model of couple relationships and cardiovascular health (especially atherosclerosis) and elucidate how the covert and overt experiences of two partners influence one another and their physiology within the broader psychosocial context of their relationship quality and history, socioeconomic status, and the stress and health of each individual. In an effort to understand pressing health problems like heart disease, researchers need to bring general theories of health and a broad range of research to bear on the problem, while doing justice to the details of specific disease models, as do Smith and Baucom.

Each of these four articles includes a distinct theoretical model, while simultaneously calling upon many of the very same processes linking social relationships and interpersonal interactions to health. The figures presented in these articles offer novel hypotheses; specify variables to operationalize; and, together with the others presented in the special issue, add to the platform from which can spring the next generation of relationships and health research.

The contributions to this special issue feature mediators and moderators at multiple levels of analyses (cultural, social, personality, behavioral, physiological). For example, Uchino and Way (2017) provide an expert state-of-the-art

depiction of the known and proposed biological mechanisms underlying links between social risk and resilience factors and health, which can facilitate future research on this key set of integrated pathways. They offer a general neurochemical model linking positive and negative family relationships to neural processing, which in turn influences disease-relevant peripheral physiology, acute or chronic disease, and mortality. Modeling biological and psychosocial pathways in equivalent detail is one way to begin to put equal weight on the different levels of analysis and is extremely valuable at this juncture.

Biological pathways are critical mechanisms in most models. Yet they must not overshadow attention to the role of health behaviors, which are included as mechanisms in several of the articles. For example, health behavioral and lifestyle factors—specifically eating, physical activity, substance use, sleep, and preventive health behaviors—are a key set of mediators of the effects of social connection or disconnection on health and well-being in the interpersonal mechanisms article (Pietromonaco & Collins, 2017). Similarly, the health behaviors of children and adolescents are influenced by parental relationship processes and set the stage for health behavior over the life span (Chen, Brody, & Miller, 2017). Parental roles also influence illness management through behavioral health self-management skills (Martire & Helgeson, 2017), and couple processes influence health behaviors and adherence to medical regimens, which are critical elements of cardiovascular rehabilitation (Smith & Baucom, 2017). Intensive focus on health behavioral mechanisms demands ongoing attention to build this area of science, and these articles illuminate the way.

Rook and Charles (2017) focus on the social and behavioral mechanisms that operate in older adults. Due to their life experience, older adults seem to do a better job of managing their relationships than they did when they were younger by focusing on positive ties and managing conflict to minimize the psychological and interpersonal costs. However, aging is associated with unique vulnerabilities such as loss of important relationships, and older adults also suffer greater costs associated with persistent interpersonal stress in relationships, especially as parents of adult children. How individuals manage these relational strengths and vulnerabilities in later life is important to their subsequent health and well-being, as delineated in this article.

Rook and Charles's (2017) article on older adults, together with others in the special issue (e.g., Chen, Brody, & Miller, 2017), emphasize the need for life-span approaches that consider how relationships influence health from infancy through childhood, adolescence, and various stages of adult life. And even in utero! The influences of close relationship on perinatal health are well documented but beg for greater development (Dunkel Schetter, 2011; Hostinar, Sullivan, & Gunnar, 2014). It has been said that "from birth to death, relationships provide the backbone for much of

human activity" (Reis, Aron, Clark, & Finkel, 2013, p. 567). In general, the study of close relationship and health over the entire life span is a prime target for attention by researchers.

Regarding research on social relationship risk and resilience factors, the various articles in this special issue evoke a plethora of relationship concepts: social integration, social ties, social connection–disconnection, close family ties, loneliness, social support, positive and negative interactions, conflict, ambivalent exchanges, social rejection, interpersonal sensitivity, attachment style, and more. In the couples domain, there are concepts such as intimacy, marital quality, relationship satisfaction and security, partner responsiveness, and coregulation. It is hoped that the articles in this special issue collectively highlight the wealth of concepts and related theoretical and measurement issues within the broad domain of the study of social relationships. However, researchers have too often lumped together distinct constructs, creating confusion and slowing progress. For example, social support is not the same as social integration, loneliness is not the same as social isolation, and marital quality is not the same as either social support or conflict, though both dimensions are often considered to be components of it. The proliferation of concepts in this area of work reflects in part the complexity of human social relationships. Nonetheless, it is hoped that these articles exemplify the level of precision researchers must strive for in defining and operationalizing psychological constructs so as to build a stronger basic and translatable science.

Unfortunately, there is a clear chasm today between what is known (as synthesized here) and the degree of success thus far in improving population health by utilizing a person's social relationships. The large number of epidemiological studies, published meta-analyses, and moderate to large effect sizes are a more than sufficient basis on which to justify translation. Despite the compelling evidence showing strong close relationships are highly beneficial to health, public policy has yet to produce expansive public education on these findings (Holt-Lunstadt et al., 2017). Moreover, there is limited evidence to date that social isolation, integration, or support processes can be altered using contemporary criteria and standards for designing and reporting randomized controlled trials. In fact, past intervention efforts attempting to strengthen close relationships have had limited success in improving health (S. Cacioppo, Grippo, London, Goossens, & Cacioppo, 2015; Hogan, Linden, & Najarian, 2002; Kahn et al., 2002; Masi, Chen, Hawkey, & Cacioppo, 2011; Uchino, Bowen, Kent, Mikal, & Fisher, in press; Writing Committee for the ENRICH Investigators, 2003).

Why are we stuck in the transition from strong evidence relevant to the health of a population to meaningful applications? Among the barriers in this area are that existing theory and findings do not tell us *when* to focus on the

presence of others (to affect physiology, perhaps?) and *when* to focus on their words and actions (to influence health behaviors, perhaps?). The evidence from animal and human models has made clear that the presence of others alone is a powerful influence on physiology and adaptation (Bond & Titus, 1983). For example, emerging evidence on the power of physical touch to affect physiology and health has provided valuable new insights and translational avenues (e.g., Coan, Schaefer, & Davidson, 2006; Cohen, Janicki-Deverts, Turner, & Doyle, 2015; Ditzen et al., 2007; Jakubiak & Feeney, 2016). Helping people learn to cultivate satisfying social ties to avoid isolation is another clear translational avenue.

Regarding support provision, a skill set of certain non-verbal behaviors and specific verbal communications delivered authentically are critical components of social support from close others with potential power, but researchers have yet to crystalize a package of social support skills that can be taught to laypersons. Existing research has not fully elucidated what words or actions are generally best to provide solace or social resources in any given situation or across situations (Martire & Schulz, 2007). Furthermore, researchers must identify and teach cognitive abilities that enable people to determine *what* is needed by another person who is suffering before those skills can be enacted (Dunkel Schetter & Bennett, 1990; Dunkel Schetter, Blasband, Feinstein, & Bennett Herbert, 1992). Given knowledge in psychology of how to train mental health providers, it should not be so elusive to teach laypersons—partners and family members—a few key cognitive and behavioral skills (maybe the value of listening without judgment?) that could be useful every day, and in the context of illness, to respond appropriately to someone close who is in need of help.

Support-seeking skills are also possible avenues of translation. Much can be understood and made known to the public regarding the wisdom in seeking support selectively from those most able to provide particular resources effectively, why and how to express needs and feelings appropriately, and how to be receptive to support. Finally, another avenue for translation is delineating and disseminating knowledge on the interpersonal skills involved in managing strain and conflict in close relationships, drawing upon advances in family and couples therapy.

This challenge in translation also involves attention to moderators, which many of the entries in the special issue address. Central among them is the role of cultural variations across ethnic, racial, and other subgroups of a population, such as what is perceived as supportive or helpful (Kim, Sherman, & Taylor, 2008). The risks of translating work across cultures must be addressed head-on, given an increasing awareness of cultural differences in attitudes and values about needing, offering, and accepting help from kin, friends, and professionals. Future research must also consider variations in effects by socioeconomic status. Inter-

ventions in some contexts must be geared to people with low educational levels and possibly cognitive deficits. Our assumptions about low-income couples, for example, may or may not be accurate and must be examined before intervention (cf. Jackson, Krull, Bradbury, & Karney, 2017). In short, the inability to capture the power of human close relationships in interventions that are specific to particular targeted health populations is a challenge that lies ahead.

Thus, it is incumbent upon us to demonstrate first, that problematic social relationship patterns can be changed and adaptive ones can be promoted wherever in the life course they influence health (or earlier) and second, that any interventions that effectively alter relationship patterns also influence mechanisms known to be related to key health outcomes, if not those outcomes themselves. It is important to note that the next decade of work must also measure processes of change and not only effects of interventions (Aiken, 2011; Collins et al., 2011; West & Aiken, 1997).

There is help in this endeavor, because many of the entries in the special issue address the complexities of translation and intervention specifically. Inroads with respect to theory and research on dyadic processes within specific disease contexts are being made, inroads that take into account reciprocal influences within the couple as a unit (cf. Pietromonaco, Uchino, & Dunkel Schetter, 2013). For example, Martire and Helgeson (2017) discuss dyadic approaches to helping chronic-illness patients and their family members collaborate in goal setting for patient behaviors, and they argue that dyadic interventions may also benefit family members' health behaviors (see also Smith & Baucom, 2017).

Team science is the current modality for advancing knowledge on health. Therefore, this special issue is not exclusively for psychological scientists but for researchers across fields who want to learn how the magical everyday nature of close relationships at their best can be captured in precise science to influence health. It is hoped that this compilation can inspire a wide audience to expand their perspectives and develop new avenues of collaborative and interdisciplinary translational work, because the challenge of unraveling mechanisms, discovering moderators, and designing effective interventions remains (Reblin & Uchino, 2008; Uchino, Bowen, Carlisle, & Birmingham, 2012).

In sum, given the substantial body of strong science on close relationships and health, it is an obligation for teams of researchers to tackle the challenges posed here in the years ahead. There is a rich foundation in psychology on social relationships and health in which to take pride (e.g., J. T. Cacioppo, Hawkley, Norman, & Berntson, 2011; Cohen, 2004; Kiecolt-Glaser, & Newton, 2001; Taylor, 2011). Yet, this is a critical juncture that faces those who have been puzzling over and working on social relationships and health for decades as well as those from psychology and other disciplines who are new to this area. The next gener-

ation of interdisciplinary scientists can bring new tools, novel ideas, and renewed energy to these challenges.

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