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Stress Spillover and Crossover in Couple Relationships: Integrating Religious Beliefs and Prayer

Burgeoning research investigating the effects of daily stress on romantic relationships has paved the way for identifying a variety of means of buffering the negative effects of stress. This article reviews the literature on stress spillover from outside the relationship (extradyadic) on relationship behaviors for both partners to stress inside the relationship, or intradyadic stress, as well as crossover of stress from one partner to another. Analysis of studies on daily stress spillover and crossover in dyads highlights mediators and moderators that can shape future research. Finally, an area central to the life of many people, religious beliefs and behaviors is considered. A meaning-making process is identified, partner-focused petitionary prayer, that could buffer the spillover of extradyadic stress on intradyadic stress, as well as the crossover to partner stress, ultimately having an impact on relationship outcomes. The potential to develop interventions around existing daily behaviors is explored.

Stress has been researched for many decades, likely because of its association with physical and psychological health (Kasl, 1984; Lovallo,

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Key Words: Couple health, couple stress, daily stress spillover, marital relationships, marital therapy and family therapy, religion and families. 2015; Rice, 1999). In this work, stress is conceptualized as a transaction between the individual and his or her environment (Lazarus & Folkman, 1987), and researchers have long explored the spillover of stress from one domain of life to another (e.g., work to home). Most empirical work on stress has viewed it as an intraindividual process. However, stress experienced in the context of an intimate relationship (dyadic stress) has received increased attention in an attempt to understand stress and coping across different domains or roles, including different relationships (Bakker, Westman, & Hetty van Emmerik, 2009; Randall & Bodenmann, 2009; Westman, 2001, 2006). Consequently, researchers began to apply a systemic approach to the transactional model of stress that combined understanding of how stress has an impact on the individual and others with whom the individual interacts, through the simultaneous investigation of extraand intradvadic stress (Bodenmann, 2005).

Not long ago, scholars called on stress and coping researchers to examine not only the way in which stress spills over from one domain of life to another but also the crossover of stress from one person to another, such as from one romantic partner to the other (Westman, 2001, 2006). Recent theoretical advances have also emphasized the complex, nuanced, and cyclical nature of stress spillover and crossover (Bodenmann, 2005; Randall & Bodenmann, 2009), suggesting that researchers need to utilize more sophisticated or intensive means of measuring these processes (Tennen, Affleck, Armeli,

& Carney, 2000). One way of capturing the nuanced process of stress spillover and crossover in relationships is to study daily experiences of stress.

This article therefore critically evaluates recent research investigating the daily spillover of extradyadic stress onto intradyadic stress, transmission of stress from partner to partner (i.e., crossover), and ultimately relationship outcomes. In addition to providing a synopsis of the current literature, the analysis reveals several challenges, including inconsistency in the conceptualization and measurement of daily dyadic stress, sampling bias, and inconsistent use of dyadic analyses. More importantly, it highlights protective and risk factors for such spillover and crossover and provides support for the potential of interventions rooted in religious meaning making. Examining religion in the present context provides potential coping resources for couples that are based on individuals' fundamental beliefs about the world and that build on existing efforts to cope with stress. The article explores one such resource, partner-focused petitionary prayer (PFPP), as it can be used to cope with daily stress before it influences relationship interactions. Its integration into the study of stress spillover and crossover has the potential to advance understanding of additional coping resources for buffering the impact of daily extradyadic stress.

CONCEPTUALIZING STRESS IN INTIMATE RELATIONSHIPS

What is stress? In their groundbreaking transactional theory of stress and coping, Lazarus and Folkman (1984, 1987) viewed stress as a response to a stressor, or an event that is appraised as detrimental to well-being for which coping resources are perceived to be inadequate. Stress is generally experienced psychologically as a feeling of pressure and strain, which is accompanied by somatic responses that involve multiple systems, including the hypothalamic-pituitary-adrenal axis and the sympathetic nervous system. In their theory, Lazarus and Folkman (1987) viewed stress, coping, and adaptation as a complex iterative process.

Stress Spillover and Crossover

Lazarus and Folkman's (1984, 1987) transactional approach was articulated alongside those

investigating the spillover of stress from one domain of an individual's life to another and the crossover of stress from one person to another (Bolger, DeLongis, Kessler, & Wethington, 1989). Events or stressors that trigger stress may be external (e.g., spider on your pillow) or internal (e.g., imagined failure of important exam). Similarly, when stress is examined at the dyadic level, stressors may be external or internal to the relationship. Extradyadic stressors are ones that occur outside the relationship, such as those in the work environment, with friends, or even with finances. Intradyadic stressors, in contrast, are those that occur within the relationship, such as incidents of conflict or negative interactions.

When stressors occur and coping resources are inadequate, the distress experienced by the individual can lead to behaviors in another domain of life that trigger further stressful events and additional stress. This process is known as stress spillover (Bolger, DeLongis, Kessler, & Wethington, 1989). Stress crossover, in contrast, is the transmission of stress across individuals (Bakker et al., 2009; Westman, 2001). The crossover of stress can be bidirectional such that extradyadic stress experienced by the individual may influence a romantic partner, and the intradyadic stress experienced by the person may influence others outside of the romantic relationship, such as coworkers (Westman, 2001). Bodenmann's (1995) systemic transactional model (STM) integrates the process portrayed in the transactional model of stress with the systems lens found in work on stress spillover and crossover.

Bodenmann's model emphasizes the interdependence of partners and the influence of stress originating outside the relationship (extradyadic) on stress originating within the relationship (intradyadic). For example, a husband's appraisal of stressors outside the relationship and perceived coping resources will influence how he interacts with his wife, and thereby how the wife appraises the stressor. The coping employed by the wife, in turn, has in impact on her appraisals of stress and coping resources and subsequently her behavior toward the husband and the emotional transmission of stress (Larson & Almeida, 1999), thereby influencing stress crossover. Coping mechanisms can include resources pertaining to the individual as well as the dyad. Dyadic coping can involve communication around the stress whereby partners actively engage in a process of seeking and

providing emotional or problem-solving support for each other. Such dyadic behaviors can serve as additional coping resources that alleviate strain and dampen maladaptive stress responses.

Negative work-family spillover has consequences for individual well-being and has been a popular area of study (e.g., Grzywacz, 2000; Grzywacz & Marks, 2000). Daily workand family-related stress tend to co-occur (Grzywacz, Almeida, & McDonald, 2002), and attempts to examine daily extra- and intradyadic stress and relationship outcomes, (e.g., closeness, sexual satisfaction) confirm the notion of spillover of extradyadic to intradyadic stress (Bodenmann, Ledermann, & Bradbury, 2007; Falconier, Nussbeck, Bodenmann, Schneider, & Bradbury, 2015; Ledermann, Bodenmann, Rudaz, & Bradbury, 2010). Moreover, many findings suggest that the accumulation of intradyadic stress (resulting from stressors such as conflict or negative interactions) explains how extradyadic stress has an impact on relationship outcomes. This is not surprising as researchers have previously noted that crossover may occur as a result of couple interactions (Westman & Vinokur, 1998). The STM suggests that individual and dyadic coping resources should buffer both spillover and crossover of stress (Bodenmann, 2005). Knowing how to improve couple functioning and bolster resilience to stress could benefit from the exploration of individual- and couple-level protective and risk factors for coping with extradyadic stress.

Why Daily?

Couples identify everyday stress or daily hassles as one of the most important reasons for divorce (Bodenmann et al., 2007). It is suggested that daily stress has a unique way of chipping away at relationship well-being, as it is often seen as trivial and results in less partner support (Falconier et al., 2015). Although stress and coping have been studied for decades, the manner in which individuals experience, appraise, respond to, and cope with stress is an intricate process that fluctuates greatly even over very short periods of time. Researchers have suggested that a process approach to examining daily stress and coping would best inform interventions (Tennen et al., 2000). If such an approach can benefit the development and implementation of interventions for managing stress and individuals' health, they can provide insight into buffering the negative

impact of daily stressors on relationships. Fortunately, technological innovations have made the study of daily stress more accessible to researchers. They enable the exploration of mechanisms that might mitigate the negative effects of stress on couple interactions, potentially thwarting the spillover and crossover of stress. Despite the ease with which researchers can now explore daily processes of extra- and intradyadic stress and coping in couples, few studies actually utilize daily methodology. Larson and Almeida (1999) discuss the challenges and rewards in capturing the processes of stress spillover and crossover with short-term repeated measures versus long-term retrospective recall. Both approaches have limitations, but a focus on daily experiences can help uncover intricacies of spillover and crossover processes.

The current article therefore reviews and critically evaluates research that examines daily extradyadic stress in couples in relation to dyadic behaviors and relationship outcomes. The reviewed research taps into the daily process of stress transmission but is inclusive enough to consider a variety of approaches to measurement. We emphasize the handful of studies that have examined the spillover of daily extradyadic stress onto intradyadic stress, and ultimately relationship outcomes. This analysis addresses methodological challenges and identifies protective and risk factors for such spillover that may be important when considering interventions to mitigate daily stress spillover and crossover in couples. One such protective factor and potential intervention is fueled by existing beliefs and daily practices, specifically prayer.

The Potential of Prayer

The analysis described lays the foundation for introducing an overlooked construct central to the daily lives of many people, namely, religion. Examining religion in the present context is important to providing potential coping resources for couples. We therefore explore prayer as one such resource and illustrate how its integration into the study of stress in couples can advance understanding of additional coping resources for buffering spillover and crossover of daily extradyadic stress.

Religious beliefs create cognitive schemas used to understand one's environment, including those linked to individual and relational outcomes (Mahoney, 2010). Similar to the systemic

transactional model, the act of appraising one's environment is central to attribution theory, which is at the core of understanding religious coping (Spilka, Shaver, & Kirkpatrick, 1985). Attribution theory posits that individuals make meaning of the world around them by attributing causes to it (both natural and supernatural). As such, religious meaning, or attributions, tied to the stressful event have an impact on appraisals of stress (Spilka, Hood, Hunsberger, & Gorsuch, 2003).

The processes of meaning making identified in attribution theory lead to an understanding of prayer—a religious activity that is at the center of nearly all the world's religions—as providing a resource for coping with stress (Spilka & Ladd, 2012). Further, specific types of prayer have been identified as a means of coping with experiences of stress by evoking the help of a deity (i.e., petitionary prayer; Fincham, 2014). This behavior may help individuals feel proactive in regard to extradyadic stress and thereby decrease the negative impact of such stress on their behavior toward their partner (and subsequent intradyadic stress). Such coping has already been identified as a predictor of relationship behaviors and feelings about relationship behaviors (Lambert, Fincham, & Stanley, 2012b). Self-focused petitionary prayer is linked to health (Ferguson, Willemsen, & Castañeto, 2010), but in the context of couples, partner-focused petitionary prayer has been identified as a form of coping that predicts later commitment and relationship quality (Fincham & Beach, 2014). Engaging in PFPP, then, may help mitigate the effects of stress on relationship behaviors and reduce the transmission of negative emotions to one's partner, therefore reducing stress crossover. An especially exciting aspect of PFPP is that prayer is already an aspect of many individuals' daily lives and is used to cope with stress (Levin, 2016). Thus, using prayer in conjunction with marital interventions could help buffer stress spillover and crossover.

REVIEW OF RESEARCH ON DYADIC DAILY STRESS

Methodology

We provide a systematic synthesis of the published literature from 2007 to 2017. We chose a narrative approach to a systematic synthesis of the literature, as opposed to a meta-analysis,

for multiple reasons. First, research on daily stress spillover and crossover in couples utilizes a variety of quite disparate measures, as we will discuss. As such, it is difficult to find comparable measures across studies to allow for the meaningful calculation and aggregation of effect sizes. Second, a narrative review captures the nuances of the current literature, particularly the many perspectives taken in addressing a similar issue from different angles by looking at both general and specific forms of extradyadic stress and relationship interactions. Finally, such an approach is carried out in a context that facilitates the introduction of an overlooked domain of individual and couple management of stress.

The review is limited to the past decade because the previous two decades were marked by the clear articulation of a systemic transactional model, which provided a solid framework for researchers to investigate dyadic stress spillover in the 2007–2017 period. Specifically, pivotal reviews of the stress and coping literature by Bodenmann and Randall as well as Westman and colleagues have provided theoretical clarity to stress spillover, crossover, and couple coping, in addition to reviewing the existing literature (Bakker et al., 2009; Bodenmann, 2005; Randall & Bodenmann, 2009; Westman, 2001). All these works are cited in the rationale for this review. and there is no need to repeat the contribution of these authors. Moreover, our analysis includes only articles directly addressing daily stress in regard to relationship behaviors or outcomes for couples.

The present analysis seeks to advance the understanding of daily stress spillover and crossover in couples before introducing an important mechanism for coping that has been overlooked in this field. Although daily diary methods are ideal for measuring daily stress, the current review is not restricted to articles using such designs. Rather, it includes all articles examining the construct of daily stress in the past decade, even if done using retrospective recall. In this manner, we hope that the review might highlight the need for more sophisticated measurement of stress spillover and crossover while laying the foundation for understanding the potential of partner-focused petitionary prayer.

Academic Search Complete was used to search abstracts using the terms *stress*, *couples*, *dyadic*, and *daily*. This yielded 45 articles. Google Scholar was also examined using *stress*

spillover, couples, daily, and dyadic. This search yielded 198 articles. Articles specific to the effects of stress on parenting were removed, leaving 41 and 100 articles in Academic Search Complete and Google Scholar, respectively. After applying the inclusion criteria of studying daily stress, particularly extradyadic stress, and relationship behaviors or outcomes for couples, 24 articles were retained. Table 1 shows a brief summary of each article.

Further distinguishing different types of stress. Dyadic stress is a stressful event or experience that has an impact on both partners and results in common stress. The current review focuses on the locus of stress (internal vs. external), as opposed to its intensity (major vs. minor), how the couple is affected (direct vs. indirect), and its duration (acute vs. chronic). As previously noted, extradyadic stress is stress originating from events or stressors outside the relationship that are experienced by either partner. Extradyadic stressors can include but are not limited to those that arise in the workplace, the social domain (friends and family), and in regard to finances, which can directly and indirectly affect the relationship through stress spillover. Intradyadic stress, in contrast, originates within the relationship and is the result of interpersonal behaviors, such as arguments or conflict. When intradyadic stress is not explicitly measured, the stress spillover process may be demonstrated by examining the effects of extradyadic stress on relationship behaviors, such as conflict or aggression, which are known intradyadic stressors. Finally, relationship outcomes resulting from stress vary across studies but largely include satisfaction, closeness, commitment, interactions, and relationship quality.

A note on theories and models. When considering the interplay of different domains of stress, researchers tend to utilize several theories, particularly when very specific extradyadic stressors are considered, such as exam-related stress (Bodenmann, Atkins, Schär, & Poffet, 2010a; Burke & Goren, 2014), minority stress (Frost & Fingerhut, 2016), or illness-related stress (Iida, Stephens, Franks, & Rook, 2013). The STM (Bodenmann, 1995, 1997) is the most widely used framework to investigate daily stress spillover and crossover (see Randall & Bodenmann 2009; 2017), along with the construct of interdependence (Kelley, 1979;

Kelley & Thibaut, 1978; Rusbult & Arriaga, 1997). Given the dyadic nature of the construct investigated, a dyadic approach to understanding stress is utilized. However, stress is also experienced at the individual level in the process of stress spillover and crossover from one partner to the next. Therefore, theories or models addressing individual processes in coping with stress are common in the literature on daily dyadic stress spillover and crossover. These include self-regulation and depletion (Baumeister, 2002), work-to-home spillover models (Grzywacz et al., 2002; Matjasko & Feldman, 2006; McDonald & Almeida, 2004), and attachment theory (Bowlby 1958, 1982; Simpson & Rholes, 2017).

Types of Daily Stress Studied

This section provides a brief overview of the types of extra- and intradyadic daily stress investigated. It also documents the different levels at which they have been assessed. This overview is designed to inform understanding of findings pertaining to daily stress and relationship outcomes, which are reviewed in the next section.

Extradyadic stress. The type of extradyadic stress investigated varies across studies. In most, multiple sources of daily stress (e.g., work, finances, interpersonal stress with family and friends, parenting) are summed to yield an index of extradyadic stress. Many researchers conceptualize these stressors as "daily hassles," using scales that measure them as such. However, some studies also examine very specific daily sources of extradyadic stress (e.g., exams, work, illness, minority status). These differences facilitate understanding by showing similar patterns of spillover and crossover across both individual and composites measures of daily extradyadic stress. Further, the exploration of stress in a variety of life domains adds credence to theories supporting the spillover of stress across many different roles, not just work-employee and home-spouse, have traditionally received the most attention in spillover research.

Measuring stress from multiple sources, or stressors across different domains of life, enables a nuanced understanding of how each may fluctuate differently or similarly to others. Accordingly, many researchers have utilized measures that consider multiple sources of

Table 1. Empirical Review of Daily Stress Spillover Research on Couples in the Past Decade

	Variables of Interest	Design for Daily Measurement	Sample	Dyadic Measurement	External Stress Measurement	Mediators/Moderators
Ben-Ari & Lavee, 2007	IS & ES ES: Social-political events & security-related events	Questionnaires 7 consecutive days, same time each night, with phone reminders	Couples (OS): Random subsample (281) from representative sample of 1,000 (188 Jewish, 60 Muslim, 33 Christian)	Both partners completed separately the initial interview & daily diary packets	Daily Hassles & Uplifts Scale adapted 2 additional items: social-political events and security-related events	Overall marital quality & group membership moderated stress effect on closeness
Bodenmann, Atkins, Schär, & Poffet, 2010a	ES only: Daily Hassles	12 collections over 3 mos, weekly, but reported on each day once a week	103 females, undergrad students	One partner's perception of one's own & their partner's dyadic coping	6 items addressing studies, social interactions with partner, & daily hassles	Dyadic & individual coping as moderators, not significant
Bodenmann, Ledermann, & Bradbury, 2007	IS & ES: Life events (past year)	Single report, recall of daily stress over past month	198 OS couples, most in married long-term relationships	Both partners completed separately	Hassles measure adapted & shortened Disproportionate items for IS & ES but reliable 27 life events	IS mediated ES & relationship functioning Supporting spillover effect
Bodenmann, Meuwly, Bradbury, Gmelch, & Ledermann, 2010b	ES only: General stress	Current stress, trait anger, aggression in past year, and trait coping patterns	370 individuals in OS relationship High earners in long-term relationships (most married & satisfied)	Reported by one partner Mailed	Used general level of stress, only ES items (no. of items not stated) high reliability	Moderated mediation: Individual & dyadic coping moderated; proneness to anger mediated; stress predicting verbal ageression
Buck & Neff, 2012	ES: 9 stressful events not likely affected by relationship satisfaction	14-day daily diary (online, & paper format), 80% did all 14 days with 3 consecutive days required	165 newlywed OS couples (most White, college educated, middle class, late 20s)	Both partners completed	Daily stressful events (9) adapted from longer (21 item) measure	ES affects relationship appraisals (through depletion) and negative behaviors (not through depletion)

Table 1. Continued

	Variables of Interest	Design for Daily Measurement	Sample	Dyadic Measurement	External Stress Measurement	Mediators/Moderators
Burke, & Goren, 2014, Study 1	ES: Exam-related stress (anxiety) IS: Interpersonal tension	Daily diary paper format, 6 weeks before exam/1 week after	304 couples with one partner taking bar exam; 81% Caucasian, average age 30, cohabitating ~4.4 yrs, well educated	Both partners completed. Geared toward support behaviors for examinee	Main stress: Exam related Controls (IS): Daily interpersonal tension (5 items) and other stressful events (16 items)	Examinee: Exam stress affected by receipt of partner support as exam neared For partner, stress increased as exam neared
Diamond, Hicks, & Otter-Henderson, 2008	ES: Pos. & neg. events, stress & stressfulness IS: Pos. & neg. partner interactions & contact frequency	Paper format daily diary at same time (evening), 21 days	42 married/cohabitating OS couples Majority Caucasian, age 30, college educated, middle class, highly satisfied	Both partners reported with one designated as traveling partner	Composite of number of daily stressful events, overall daily stressfulness, & stressfulness of most stressful event	Separation stress interacted with attachment security in predicting sleep problems and cortisol activity
Falconier, Nussbeck, Bodenmann, Schneider, & Bradbury, 2015	ES & IS: different sources of stress	Paper format, single time point, daily hassles over past year	110 OS couples, average age in 40s, most with college education	Both partners reported and were told to complete separately	Multidimensional Stress Scale: ES, 8 items; IS, 10 items	IS mediated link between ES & relationship satisfaction & demression
Frost & Fingerhut, 2016	ES: Exposure to sexual-minority stressor & daily hassles	Daily diaries online, 10 consecutive days before impending election	64 SS couples Average relationship length = 6.8 yrs, most cohabitate, are female, Caucasian, and in early 30s	Both partners completed separately	Exposure to negative media (type & frequency) ES: Daily Hassles Scale	Only actor effects, exposure to negative media linked to affect & relationship satisfaction, when controlling for effects of daily hassles

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	Variables of Interest	Design for Daily Measurement	Sample	Dyadic Measurement	External Stress Measurement	Mediators/Moderators
Iida, Stephens, Franks, & Rook, 2013	ES: Diabetes-related stress (symptom severity & distress/worry) IS: couple interaction quality	Initial survey & 24 daily online surveys (same time each day), all did at least 1 week	127 couples, only 1 partner with type 2 diabetes, over 55 (average age 66 yrs), most college educated and Caucasian	Both partners reported daily	Severity of symptoms (1 item) Level of worry about diabetes (3 items)	Greater daily symptom severity predicts less enjoyment & greater tension in couple interactions, especially with longer illness duration
King & DeLongis, 2014	ES: Perceived stress, occupational burnout IS: Marital tension	All online (initial survey & 4 consecutive days), paramedics completed 3x daily and spouses 2x daily	87 couples: Paramedics & spouses, cohabitating, most Caucasian, early 40s, with average relationship length of 13 vrs	Both partners completed separately	Perceived Stress Scale, adapted language for daily use (4 items)	Perceived stress predicts both rumination for actor, not partner and withdrawal for both; withdrawal of spouse predicts tension for both
Lavee & Ben-Ari, 2007	ES: Daily work stress IS: Dyadic closeness	Initial interview in person, questionnaires (7 consecutive days) completed at same time each night with phone reminders	Couples: Random subsample (169) from representative sample of 1,000 dual earners, most full-time, late 30s—early 40s, some college educated, with 1–6 children	Both partners completed interviews and daily surveys separately	Work stress from Adapted Daily Hassles & Uplifts Scale (12 items), 1 item measured daily work stress, coded 1 (stressful) or 0 (not stressful)	Daily work stress predicts dyadic closeness, mediated by negative mood, but no moderating effects of relationship quality

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	Variables of Interest	Design for Daily Measurement	Sample	Dyadic Measurement	External Stress Measurement	Mediators/Moderators
Ledermann, Bodenmann, Rudaz, & Bradbury, 2010	ES: Hassles IS: Interactions (quarreling, tenderness, togetherness)	Single measurement of recall of daily stress over past month	Convenience sample: 345 OS couples, average age early 40s, most married with kids, college educated, relationship length of 13.8 yrs	Both partners completed separately	Shortened & adapted Hassles Scale (29 items) Relationship stress (8 items) Marital Communication Questionnaire Partnership Questionnaire	Greater ES predicts poorer marital communication in conflict & poorer marital quality mediated by IS; actor effects from ES to IS, but partner effects from IS to marital communication & quality
Liu, Rovine, Klein, & Almeida, 2013	ES: Physiological stress IS: Relationship strain, spousal support & disagreement	Baseline interview, 4 salivary cortisol samples per day for 4 consecutive days	19 OS couples: Hotel managers & spouses, most married, late 30s—early 40s, college educated, with children, upper middle class	Both partners provided details in baseline interview & cortisol samples	Salivary cortisol slopes used to measure ES spousal support (7 items) IS: relationship strain (6 items), & disagreement (5 items)	Confirmed diurnal cortisol slope synchronicity; positive association between couples with higher IS & disagreement (when one reacts the other does too)
Milek, Butler, & Bodenmann, 2015	IS: intimacy & time shared with partner each day	Baseline survey, 14 consecutive daily surveys completed at night (paper format)	92 mothers, living with partner, average age early 40s, most work, are college educated, & satisfied in relationship	Only female partner reported	Single item for IS, no ES measured Intimacy scale (4 items)	Shared time buffered negative relationship between IS & intimacy only on weekdays Shared time is marginally stressful in context of low intimacy

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	Variables of Interest	Design for Daily Measurement	Sample	Dyadic Measurement	External Stress Measurement	Mediators/Moderators
Neff & Karney, 2009, Study 1 and Study 2	Study 1 ES: Interview ratings IS: Relationship interactions	Lab interview on stress, 7-day diary (mail or online) same time each night	169 OS couples in first 6 mos of first marriage, most early to mid-20s, college educated, nearly half students with low income	Both partners completed and were interviewed separately	ES: Interview ratings using UCLA Life Stress Interview, 11 life domains outside relationship over previous 6 mos Reactivity: daily changes in relationship satisfaction	ES predicted greater reactivity to daily relationship perceptions, especially for wives; wives; wives; attachment anxiety & self-esteem also influenced reactivity
	Study 2 ES: Experiences IS: Reactivity to interactions	Contacted 6 mos and 2 and 4 yrs into marriage, completed 7 daily diaries each time (paper format), same time each night, at least 3 consecutive days	82 OS couples in first 6 mos of first marriage, most early to mid-20s, college educated, nearly half are students with low income	Both partners told to complete separately	ES: Version of Life Experiences Survey (appears to be one time over past 6 mo and not daily)	With greater external stress partners were more reactive in relationship assessments; for wives, closeness & attachment anxiety tended to influence reactivity amid ES
Randall, Tao, Totenhagen, Walsh, & Cooper, 2016	ES: Chronic & sexual minority stress	Single time-point measurement, recall of stress (online format)	95 SS couples (64 lesbian, 31 gay), most Caucasian, college educated, no children with wide range of relationship length	Partners completed separately, given unique IDs	Measures of Gay Related Stress (3 item general stress subscale), Controlled for ES (Multidimensional Stress Scale)	ES & minority stress associated with depression; minority stress predicts increased depression for those low in emotion-focused supportive dyadic coping

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Roberts, Leonard, Butler, Levenson, & Kanter, 2013	ES: Work-related stress IS: Emotional behavior (hostility and affection)	Baseline surveys (paper format), followed by 1 wk of daily dairies, followed by lab interview	17 SS couples, male police officers & wives, most in 30s, Caucasian, middle class, with children, and average relationship length 7.7 yrs	Communication observed in lab, both partners completed surveys separately	ES: Police Stress Survey (single items: degree & frequency of stressful events) Locke-Wallace Marital Adjustment Scale (15 items), pleasure from work & marriage (single items)	Greater husband ES amplifies husband hostility predicting wife hostility (synchrony); wife affection predicts husband affection (more synchrony with wife), but wife affection is less predicted by husband affection
Schumacher, Homish, Leonard, Quigley, & Kearns-Bodkin, 2008	ES: Daily hassles IS: Aggression or conflict tactics Drinking habits	Partners interviewed & completed single measures on anniversaries 1, 2, 4, 7, & 9	634 couples, most midto late 20s; Caucasian, college educated, living together, not previously married, almost 30% African American, and almost 40% with children	Both partners interviewed & sent packets of surveys once every few years	ES & IS: Daily Hassles—Survey of Recent Life Experiences Short Form (41 items on ES & IS), Conflict Tactics Scale	Wives' ES predicted wives' aggression, particularly with higher levels of avoidance coping ES not significant for husbands
Timmons, Arbel, & Margolin, 2017	ES: Sources of stress IS: Marital conflict & aggression	Lab interview followed by 14 consecutive daily surveys online, required 1 day of overlapping data	114 OS couples living together with at least one child, ages 30s–70s, most college educated, married about 16 years, with diverse ethnicity/race & income	Both partners interviewed & completed online surveys separately	ES: 25 items evaluating sources of stress, IS: marital conflict (12 items), Conflict Tactics Scale	Greater ES predicted higher conflict on same day for both partners but not next day; partner ES interacted: high & low wife stress interacted with husband stress to predict conflict, vice versa

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Totenhagen, Butler, & Ridley, 2012	ES & IS: Daily hassles	Baseline questionnaire & 14 consecutive daily diaries, at least 3 consecutive days same as partner	95 SS couples (40 gay, 55 lesbian), relationship length average 4.5 yrs (F), 6.8 yrs (M) Average age 32 (F)/35.7 (M), most Caucasian with college education	Partners completed separately, given unique IDs & used email to send survey links	Revised Daily inventory of stressful events (8 items noting daily stressful events, both ES & IS) Sexual satisfaction (1 item) Closeness (stick-figure representation)	Days when less close: ES predicts less satisfaction For actor, higher ES = less satisfacation When close, partner ES can decrease actor satisfaction Sex satisfaction increases as closeness increases; when close, sex satisfaction decreased as partner ES increased.
Totenhagen, Randall, Cooper, Tao, & Walsh, 2016	ES: General and sexual-minority stress	Online, baseline survey followed by 14 consecutive daily surveys, at least 3 consecutive days same as partner	81 SS couples (56 lesbian, 23 gay), average relationship length 5.4 yrs, age 33.7, most Caucasian, low relationship stress & high satisfaction	Partners completed separately, given unique IDs & used email to send survey links	ES: Multidimensional Stress Scale (30 items adapted to 5 for daily use) Measures of Gay Related Stress (56 items adapted to 13 for daily use)	Days with greater ES predicted lower relationship quality (actor & partner); on days with greater sexual minority stress less relationship quality on next day—for men only
Unger, Niessen, Sonnentag, & Neff, 2014	ES: Time doing work each day IS: Relationship hassles	Online, baseline survey, then 3 surveys per day for 5 consecutive days (2 required per week)	76 cohabitating couples, most associated with academia, average age 33, average relationship length 9 yrs	Both partners completed surveys separately but on same days as their partner	ES: Time working (vs. with partner), single items IS: Daily Relationship Hassles (4 items), Partner's Marital-Anger scale, Relationship Quality (4 items), Intimacy (4 items), Intimacy (5 items).	For actors only: high relationship quality & low IS interact predicting more time working (ES), time with partner predicts intimacy; time working predicts time with partner For partners: relationship quality predicts intimacy support

Table 1. Continued						
	Variables of Interest	Design for Daily Measurement	Sample	Dyadic Measurement	External Stress Measurement	Mediators/Moderators
Villeneuve et al., 2014	Villeneuve et al., 2014 ES: Daily hassles & psychological distress	Interview format measuring recall of daily hassles over past month	508 elderly (>65) couples living at home, married, low to middle class, diverse education	Both partners interviewed separately	ES: Hassle Scale-Elderly Form (64 items); Dyadic Adjustment Scale (32 items), Index of Psychological Distress of the Quebec Health Survey (14 items)	ES & relationship functioning predict psychological distress; ES & relationship functioning interact to predict psychological distress for men
	· ·	3				

Note. IS = intradyadic stress; ES = extradyadic stress; OS = opposite sex couples; SS = same sex couples

extradyadic stress (Bodenmann et al., 2007; Bodenmann, Ledermann, Blattner, & Galluzzo, 2006; Buck & Neff, 2012; Ledermann et al., 2010; Neff & Karney, 2009; Randall, Tao, Totenhagen, Walsh, & Cooper, 2016; Schumacher, Homish, Leonard, Quigley, & Kearns-Bodkin, 2008; Timmons, Arbel, & Margolin, 2017; Totenhagen, Butler, & Ridley, 2012; Totenhagen, Randall, Cooper, Tao, & Walsh, 2016; Villeneuve et al., 2014). However, it is equally important to consider specific extradyadic stressors to test whether they influence the relationship in a particular way. Many specific sources of extradyadic stress, however, are most relevant to specific populations. For example, researchers have examined the effects of school-related (Bodenmann, Atkins, et al., 2010) or exam-related (Burke & Goren, 2014) stress on the well-being and behavior of students and their partners. Security-related stress is salient for couples living in areas of sociopolitical unrest, such as the Israeli couples studied by Ben-Ari and Lavee (2007). Daily illness-related stress in couples in which one partner has diabetes was also studied in conjunction with couple interactions and relationship quality (Iida et al., 2013). Liu, Rovine, Klein, and Almeida (2013) assessed physiological indicators of stress when studying spousal behaviors and partner synchrony in cortisol reactivity. Daily sexual-minority stress has been examined in research on same-sex couples (Frost & Fingerhut, 2016; Randall et al., 2016; Totenhagen et al., 2016). Finally, the effects of specific elements of work-related stress, such as work stressors for police officers and their partners (Roberts, Leonard, Butler, Levenson, & Kanter, 2013) or time allocation (work vs. the relationship; Unger, Niessen, Sonnentag, & Neff, 2014) have been studied.

There is a notable gap in examining the nature of stressors that overlap both extra- and intradyadic sources of stress, such as parenting and finances. It would advance understanding of daily stress spillover and crossover for researchers to examine these sources of stress more closely and disentangle them from general measures of extra- and intradyadic stress.

Intradyadic stress. Similar to extradyadic stress, both general and specific daily intradyadic stressors and subsequent stress have been measured in many of the studies reviewed: several studies use composite measures (Bodenmann et al.,

2007; Bodenmann et al., 2006) or single-item measures of daily relationship stress (Roberts et al., 2013). However, several researchers also chose to assess specific relationship behaviors that are sources of intradyadic stress. For example, intradyadic stressors such as negative relationship behaviors (Buck & Neff, 2012) and interactions (Totenhagen et al., 2012) have been measured in conjunction with extradyadic stress. Likewise, researchers have assessed daily conflict or interpersonal aggression as sources of intradyadic stress (Schumacher et al., 2008; Timmons et al., 2017), as well as daily communication patterns (Ledermann et al., 2010) and intimacy (Bodenmann, Meuwly, Bradbury, Gmelch, & Ledermann, 2010b; Milek, Butler, & Bodenmann, 2015; Unger et al., 2014). Consideration of intradyadic stressors, even when not explicitly measured, can still advance understanding of spillover and crossover by examining links between extradyadic stress and sources of intradyadic stress within person and across partners.

Daily Stress and Relationship Outcomes

This section has three goals. First, it examines direct links between daily extradyadic stress and relationship outcomes (e.g., relationship satisfaction, relationship quality). Second, it documents findings on daily stress spillover in couples as well as crossover of stress from one partner to another. The third is to explore mediators and moderators that might help explain, or buffer, spillover of extradyadic to intradyadic stress or crossover to one's partner. Our analysis of these domains leads to methodological suggestions for future research on daily stress spillover and crossover in couples and lays the foundation for introducing prayer as a potential buffer for the effects of stress on the relationship.

Extradyadic stress and relationship outcomes: Direct links. A few studies investigate daily extradyadic stress and relationship outcomes without considering intradyadic stress per se, but they do consider sources of intradyadic stress. For example, greater daily extradyadic stress was linked to lower sexual activity, which is a potential relationship stressor, and both sexual and relationship satisfaction (Bodenmann, Meuwly, et al., 2010). Additionally, for LGBT individuals (but not their partners),

discrimination-related stressors were linked to positive and negative affect, and to relationship satisfaction, above and beyond the effects of general daily extradyadic stress (Frost & Fingerhut, 2016). This link to affect is important because emotional transmission is a means by which stress crosses over from one partner to another (Larson & Almeida, 1999). As such, greater daily extradyadic stress influenced individuals' reports (i.e., spillover) and their partners' reports (i.e., crossover) of relationship quality, with sexual-minority stress demonstrating lagged crossover effects (across days) for men and their male partners. Although these findings are limited by the failure to include intradyadic stress in analyses, they still contribute to the spillover and crossover literature through their inclusion of intradyadic stressors (Totenhagen et al., 2016).

Stress spillover and crossover. The links between daily extradyadic stress and both individual (e.g., psychological symptoms; Bodenmann et al., 2006; Falconier et al., 2015) and relationship (e.g., sexual problems and relationship quality or satisfaction; Bodenmann et al., 2006, 2007) outcomes are often mediated by daily intradyadic stress. However, extradyadic stress was more predictive of own sexual functioning for both genders and had more influence on sexual functioning than psychological symptoms or relationship quality; further, for women, intradyadic stress was more predictive of sexual problems, whereas for men extradyadic stress was more predictive of sexual problems (Bodenmann et al., 2006). Nevertheless, when extradyadic stress influenced relationship behaviors, both spillover and crossover effects were evident; moreover, these effects were related to relationship outcomes such as marital quality (Ledermann et al., 2010).

The link between extradyadic and intradyadic stress has been supported with general extra- and intradyadic stress measures. However, linking extradyadic stress to specific relationship behaviors is important for understanding the dynamics of stress crossover. Several researchers have examined the links between extradyadic stress and relationship behaviors such as couple conflict. For example, greater-than-average daily extradyadic stress predicted greater conflict (Timmons et al., 2017), and daily extradyadic stress has been associated with greater verbal aggression toward one's partner (Bodenmann,

Meuwly, et al., 2010; Schumacher et al., 2008). Further, spillover and crossover have been observed, with extradyadic stressors (e.g., police work-related stress) predicting men's hostility toward their wives, which then predicted wives' hostility toward their husbands (Roberts et al., 2013).

The pattern wherein extradyadic stress predicts negative but not positive behaviors is salient in research on the crossover of stress between partners. On days when individuals experienced greater-than-average extradyadic stress, they were more likely to engage in negative behaviors toward their partner (e.g., to criticize to blame, to feel anger or impatience), and their partners were more likely to engage in negative behaviors as well, with both partners reporting lower relationship quality. This pattern was not found for positive behaviors (Buck & Neff, 2012). In additional examples, daily extradyadic stress from illness predicted less enjoyment and greater tension in couple interactions for both partners (Iida et al., 2013), and work-related stress predicted greater withdrawal for both partners (King & DeLongis, 2014). In fact, even physiological indexes of stress (diurnal cortisol), as opposed to self-reports, demonstrated that physical stress responses in one partner predicted similar physiological patterns in the other partner when both partners experienced higher levels of strain and disagreement in their interactions (Liu et al., 2013). Together, these findings support the notion that one's daily experiences of extradyadic stress affect relationship behaviors, thereby creating intradyadic stress that results in a crossover of extradyadic stress from one partner to the other.

Mediators and moderators of stress spillover. With the establishment of stress spillover, it is important to identify mechanisms and buffers. Individual characteristics predispose partners to daily stress spillover, including proneness to anger, mood changes, and attachment insecurity. However, there are also dyadic coping processes that help mitigate the spillover of extradyadic stress to relationship behaviors and intradyadic stress. Mediators and moderators of stress spillover and crossover that have recently been explored can point to as-yet-unexplored variables that could advance understanding and provide potential points of intervention that build on existing daily habits.

Several individual characteristics act as mechanisms by which extradyadic stress influences relationship behaviors. For example, extradyadic stress influenced partner reactivity due to attachment anxiety, self-esteem, and a sense of closeness to the partner, and reactivity was linked to evaluations of the relationship (Neff & Karney, 2009). Similarly, Diamond, Hicks, and Otter-Henderson (2008) found that attachment security helped buffer the effects of separation-related stress on relationship interactions and subsequent individual well-being. Taken together, it appears that individual characteristics, particularly beliefs about oneself and the relationship, may provide a point of intervention to buffer the effects of stress.

Individual efforts to cope with stress and self-regulatory depletion have also been identified as important to understanding the effects of daily extradyadic stress on intradyadic stress and on relationship outcomes. Adaptive individual coping was found to moderate the link between daily extradyadic stress and relationship aggression (Bodenmann, Meuwly, et al., 2010). More specifically, wives' daily extradyadic stress predicted wives' aggression, particularly with higher levels of avoidance coping, but this was not the case for husbands (Schumacher et al., 2008). Similarly, rumination explained links between work-related stress and withdrawal and tension for both partners (King & DeLongis, 2014). Regarding individual differences in self-regulation, greater daily extradyadic stress is associated with greater self-regulatory depletion, which was subsequently associated with more negative behaviors toward the partner (Buck & Neff, 2012). Finally, daily extradyadic stress promoted the transmission of negative emotions between partners, thus resulting in less dyadic closeness (Lavee & Ben-Ari, 2007). Although nuanced and not specific to general measures of extradyadic stress, these findings emphasize the importance of extradyadic stress for individual relationship behaviors that can act as sources of intradyadic stress. Finally, these findings identify individual characteristics and the capacity to cope with stress as mechanisms that link extradyadic stress to intradyadic stress.

Dyadic coping and couple interaction have been a popular topic of investigation in the recent stress spillover literature. Theory and reviews (Bodenmann, 1995, 1997; Randall & Bodenmann 2009, 2017; Westman, 2001, 2006) have stressed that experiences of stress and

appraisals of coping resources are important in how individuals and their partners cope with stress. Researchers have recently explored the influences of dyadic coping on the effects of extradyadic stress, with one study showing that dyadic coping moderated links between extradyadic stress and proneness to both anger and aggression toward the partner (Bodenmann, Meuwly, et al., 2010). In another study, those low in emotion-focused dyadic coping were more likely to experience greater depression when sexual discrimination was high (Randall et al., 2016).

However, the moderating effects of dyadic coping are not found for all relationship behaviors. For example, dyadic coping did not interact with extradyadic stress to predict sexual satisfaction, even though dyadic coping alone did predict sexual behavior and satisfaction (Bodenmann, Meuwly, et al., 2010). Further, potential negative consequences of partner support were found in the context of a self-relevant extradyadic stressor: taking the bar exam. As the exam approached, partner support became more distressing for the examinee on days of high exam-related stress. However, receiving support was not positively linked to examinee distress on days of high extradyadic stress unrelated to the exam (Burke & Goren, 2014).

Although dyadic coping is not always viewed as a positive relationship characteristic, dyadic characteristics such as shared time, closeness, and relationship functioning have been identified as potential buffers of the effects of stress on the relationship. Shared time buffered the negative association between intradyadic stress and intimacy, specifically on weekdays, although shared time is marginally stressful in the context of low intimacy (Milek et al., 2015). Similarly, relationship time was linked to greater intimacy, but time devoted to extradvadic stressors, such as work, was associated with less shared time in the relationship (Unger et al., 2014). It has also been found that on days of high extradyadic stress, both partners reported less relationship satisfaction, especially when partners experienced less closeness; when partners' experienced greater closeness, sexual satisfaction was lower and partners experienced increased daily extradyadic stress (Totenhagen et al., 2012). Finally, male experiencing greater extradyadic stress also experienced greater psychological distress when relationship functioning was poorer.

Taken together, it appears that the effects of dyadic characteristics, like dyadic coping habits and closeness, are at times mixed in their benefits. Continued research is needed to tease out the positive benefits of dyadic coping in the context of specific extradyadic stressors. Moreover, because dyadic coping reflects the conjoint efforts of two individuals, interventions for individuals may enhance individual coping and thereby the relationship.

Summary. Research on daily stress spillover crossover emphasizes the relevance of extradyadic stress, both in and in specific forms, to the behaviors and stress experienced in the relationship. As expected, individual characteristics such as self-regulatory depletion, attachment insecurity, and emotional-cognitive processes have been most commonly identified as mechanisms that might explain the links between extradyadic stress, one's own behavior toward his or her partner, and subsequent intradyadic stress. Critical to understanding stress crossover are efforts of both partners to provide and/or receive support and participate in coping efforts with each other. In this regard, aspects of the relationship such as closeness and intimacy have emerged as potential buffers between extradyadic stress and negative relationship behaviors, intradyadic stress, and relationship outcomes. In light of these findings, researchers should continue to identify potential relationship interventions that improve support and closeness in the relationship to bolster resilience in the face of extradyadic stress. Fortunately, research has already begun to explore individual processes that could potentially aid efforts to cope with stress and have shown them to be linked with positive relationship behaviors. One of these is partner-focused petitionary prayer, discussed in a later section.

Critique and Suggestions

Important advances have been made in documenting the daily spillover of extradyadic stress to intradyadic stress within individuals and crossover between partners through links to behaviors or interactions, subsequent stress, and outcomes in romantic relationships. However, several challenges need to be addressed, including sample diversity, consistency in measurement of stress, and use of daily diary designs with dyads.

Sample diversity. When considering diversity, age, race/ethnicity, income, and education are important. In couple samples, it is also important to consider whether both members of the dyad were assessed, and the type of couple assessed (e.g., heterosexual or same-sex couples). In the research reviewed, couples tended to range in age from early 20s to late 40s, but most studies tend to have older samples on average (30s-40s). However, there exist age differences in the experience of daily stress and coping strategies (Folkman, Lazarus, Pimley, & Novacek, 1987). Thus, obtaining samples with wide age ranges can be ideal once patterns have been established in homogeneous samples, because diversity helps determine how stress spillover and crossover vary across ages.

The lack of diversity in education and racial/ethnic makeup poses greater challenges. The majority of participants in the reviewed studies had at least some college education, were middle class, and Caucasian. This is important because financial stress can be a stronger predictor of relationship quality in low-income and African American couples (Clark-Nicolas & Gray-Little, 1991).

Finally, the majority of studies investigated heterosexual couples, with the exception of those specifically designed to investigate sexual-minority stress (Frost & Fingerhut, 2016; Randall et al., 2016; Totenhagen et al., 2012, 2016). Examining the daily experiences of same-sex couples is becoming more common, but the sampling of same-sex couples shows similar biases in that racial and class diversity have not been addressed (Hartwell, Serovich, Reed, Boisvert, & Falbo, 2017). Ensuring diversity also requires consideration of relationship duration, marital status, and relationship satisfaction. Across all samples, couple relationships tended to be long term (more than 10 years on average), with most samples married or cohabitating. This was previously found to be relevant to stress responses, in that greater relationship duration was associated with increased cardiovascular reactivity to relationship-related stress (Youngmee, 2006). Finally, level of extradyadic and intradyadic stress in couples is important, as it can result in limited variability in these constructs (e.g., floor and ceiling effects). It is therefore noteworthy that the majority of samples reviewed had high satisfaction and low stress.

In sum, researchers should strive to include both heterosexual and same-sex couples in their samples, even though this requires more sophisticated and nuanced analyses. Further, increasing variability in relationship duration, satisfaction, race, income, and stress through improved sampling techniques will allow for greater generalizability of findings.

Measurement of stress. The measurement of daily stress has evolved in the literature on couples over the past decade. The lengthy Daily Hassles Scale (117 items; Kanner, Coyne, Schaifer, & Lazarus, 1981) is popular for assessing daily stress retrospectively. This is similar to the Daily Hassles and Uplifts Scale (DeLongis, Coyne, Dakof, Folkman, & Lazarus, 1982), which Ben-Ari and Lavee (2007) adapted for use with couples (see also Lavee & Ben-Ari, 2007). To limit participant fatigue, researchers shortened the Daily Hassles Scale (29 extradyadic stress and nine intradyadic stress items). The resulting Multidimensional Stress Scale (Bodenmann, 2006) was used in several studies (Bodenmann et al., 2007; Falconier et al., 2015; Frost & Fingerhut, 2016; Ledermann et al., 2010; Randall et al., 2016; Totenhagen et al., 2016). It has repeatedly demonstrated adequate reliability ($\alpha > .70$) and was specifically designed in the context of STM to measure the constructs of extradyadic and intradyadic stress to aid the investigation of spillover. It was originally designed for retrospective recall of daily stress, but researchers have adapted it for daily diary research (Randall et al., 2016; Totenhagen et al., 2016).

Despite the popularity of the Daily Hassles Scale and Bodenmann's Multidimensional Stress Scale, several additional measures, including single-item assessments, have been used to assess extradyadic stressors. Although domain-specific measures of extra- or intradyadic stress may yield useful information, it is important to show that they capture variance beyond that of more generic extradyadic stress captured by the Multidimensional Stress Scale.

Daily diary designs with dyads. General stress (vs. daily stress) and major stressors (vs. minor stressors) have been thoroughly examined. Even though daily stress may actually influence the link between major stressors and negative outcomes, the use of both short-term and long-term repeated analyses face their own

challenges (for a review, see Larson & Almeida, 1999).

The use of retrospective recall of daily stress is common, but long-term retrospection (e.g., a month, a year) is far from optimal. Retrospective recall can be biased by a host of factors, including current mood; tendencies to remember more clearly negative events over positive events; telescoping, whereby respondents mistakenly import earlier events into the reference period; and so on. Daily diary methods allow for examination of stress close in time to when it occurs, thus improving accuracy and permitting examination of different forms of daily stress in relation to one another. Nevertheless, studies examining daily stress and relationship outcomes continue to utilize long-term retrospective recall of daily stress. Several ask partners to recall daily stress over the previous week (Bodenmann, Atkins, et al., 2010), month (Bodenmann et al., 2007; Ledermann et al., 2010; Villeneuve et al., 2014), or year (Falconier et al., 2015), or just general daily experiences of stress (Schumacher et al., 2008). Fortunately, many studies do ask about stress experiences using daily diary methods; two studies were less clear in the daily nature of stress recall during the single time point of assessment (Bodenmann, Meuwly, et al., 2010; Randall et al., 2016). Future research on daily stress, particularly stress spillover, should utilize daily diary methods.

When utilizing dyads for daily diary data collection it is important to ensure that both partners provide data on the same days. This component of daily diary designs is less talked about; only a few studies were explicit about inclusion criteria that required partners to complete daily diaries for the same 3 consecutive days (Buck & Neff, 2012; Iida et al., 2013; Neff & Karney, 2009; Totenhagen et al., 2012; Totenhagen et al., 2016). Having a minimum of 3 consecutive days of daily data from both partners allows researchers to not only test actor and partner effects on the same day but also allows for the testing of effects on the next day, or lagged effects. These analyses will help document nuances in stress spillover and potential buffers of stress. Further, when testing potential interventions, researchers will gain greater knowledge about the intervention when collecting data from both partners on the same days. This will require more tracking of respondents to ensure usable data from diverse samples, as some respondents may not be as vigilant in daily diary completion because of higher levels of stress.

Summary. The study of stress spillover in couple relationships in the past decade has continued to illuminate the process by which stress outside the relationship predicts relationship behaviors and subsequent stress spillover from day to day. Moreover, systemic theories for explaining the dynamics of daily stress spillover for couples have been increasingly incorporated into existing theories. This has improved understanding of stress responses at the individual and dyadic levels. The literature on daily stress spillover in couples highlights many individual and dyadic characteristics that serve to either exacerbate or buffer the effects of stress on the relationship. Despite its strengths, research on stress spillover and crossover can be improved by focusing on more diverse samples and following the suggestions made regarding methods of collecting daily data.

INTEGRATING RELIGIOUS BELIEFS AND PRACTICES IN FUTURE RESEARCH

Conspicuous by its absence from the review offered earlier is an important source of meaning making and coping. Despite the importance of appraisals in understanding stress, an important influence on appraisals, religious beliefs, remains to be investigated.

The omission of religious variables from research on stress spillover in couple relationships is important for at least two reasons. First, for many people, religion is central to coping with stress and critical to understanding relationship and family functioning (see Mahoney, 2010). Second, the vast majority of the world's population (5.8 billion people; Pew Research Center, 2012) professes a religious faith. Importantly, religious beliefs permeate every aspect of family life, with an impact on family relationships and interpersonal bonds (Mahoney, 2010). In fact, the influence of religion on marital relationships and parenting, and the importance of religion to relationships and coping with family crisis, is well documented (see Mahoney & Tarakeshwar, 2005; Pargament, 2010). Our review of daily stress and couples showed that people's internal working models can buffer the effects of stress on relationship behaviors and subsequent relationship stress. This finding lends support to the potential of

religious beliefs, and interventions based on religious behaviors, to advance understanding of stress spillover.

Religion is multidimensional and complex, serving multiple purposes, so research has found both risks as well as benefits of religion and religious practices for physical and psychological health (George et al., 2000). For example, a widespread religious behavior, prayer, can both enable and/or hinder a sense of control (Spilka & Ladd, 2012). Nevertheless, religion plays an important role in helping people make meaning of the world around them, and can bolster self-esteem by providing a sense of self within a greater context (Spilka et al., 2003). Therefore, the ways religious beliefs manifest and the ways religious practices are used to make meaning of or cope with stress are significant for well-being. Petitionary prayer (petitioning a higher power for something), for example, may be a means of exerting control by taking action in the face of stress. This ability to make meaning of stress through religious beliefs and to take control by acting on stress through petitionary prayer bears examination.

In the context of the STM, it could be argued that religion and support found from religious practices may play a role in the appraisals of stress and in perceived coping resources. As such, religious routines could have profound implications for buffering stress spillover for couples for whom religion is already an important part of their daily life. As noted, however, the impact of religion and religious behaviors is absent from the literature on daily stress spillover in couples. Therefore, future research should examine the role of religious meaning making and behaviors, specifically petitionary pray for the partner, in the process of stress spillover, and a framework for doing so is offered here.

Partner-Focused Petitionary Prayer

Prayer is an activity at the center of nearly all the world's religious traditions that allows for individuals to feel a connection with the divine and can also act as a source of support (Spilka & Ladd, 2012). Prayer is hypothesized to be a means of combating distress and improving well-being (Levine, 2008) and is identified as the most frequently used religious behavior for coping with problems (Spilka & Ladd, 2012; Trevino, Archambault, Schuster, Hilgeman, &

Moye, 2011). In fact, the use of prayer as a means of coping is actually on the rise, with national samples demonstrating an increase from 43% to 49% of respondents reporting prayer as a means of coping with health concerns (Wachholtz & Sambamoorthi, 2011).

Prayer can serve multiple purposes and is multifaceted in its cognitive effects and foci. Researchers have found support for the ways prayer can help individuals build connections not only within themselves and toward a deity but also with others (Ladd & Spilka, 2002). The potential of prayer for building connections is particularly notable in the context of the literature on daily stress spillover in couples. In this context it may facilitate closeness and a focus on others, as found in research on petitionary prayer for the well-being of the partner (Fincham & Beach, 2013) and may help buffer the effects of daily stress on relationship experiences and stress.

It is important to note that there are many forms of prayer, including adoration, contemplation, fellowship, penitence, petition, and thanksgiving (Laird, Snyder, Rapoff, & Green, 2001). However, the act of engaging in petitionary prayer, in which one requests God's help or intervention, is key to the effectiveness of prayer in coping because it gives individuals a sense of control. Specifically, petitionary prayer can be employed in reaction to stressful experiences as a means of enlisting divine aid and taking action that can potentially alleviate stress (Capps, 1982; Fincham, 2014). Petitionary prayer is not only important for individual coping (Ferguson et al., 2010) but also significant in the context of romantic relationships because it can take the form of requesting not only one's own protection or well-being (self-focused) but also seeking positive things for one's partner (Fincham, 2014; Fincham & May, 2017). However, when partner-focused petitionary prayer is focused on requests to change the partner, it is likely to be counterproductive. It is therefore important to note that in research on PFPP, care is taken to ensure that the prayer focuses only on positive requests pertaining to partner well-being. Such PFPP may be especially important in the context of couples coping with daily stress. This is evident in literature on daily stress spillover that emphasizes the benefits of dyadic coping in which there is a focus on one's partner's well-being and engaging in an activity perceived as beneficial to one's partner.

Prayer and daily stress. Prayer tends to be a religious activity integrated into everyday life despite some sociological differences in frequency (Baker, 2008), and as such it holds potential for bolstering efforts to cope with daily stressors. Research supports the utility of religious and spiritual behaviors on efforts to cope with stress. For example, spirituality was found to buffer the effects of daily stress on emotional and physical adjustment (Kim & Seidlitz, 2002). The use of prayer specifically was successful in reducing daily stress and bolstering a collaborative relationship with God (Ferguson et al., 2010). Lambert and Dollahite (2006) found that praying during a conflict helped spouses renew harmony in their relationship. Prayer also enabled daily management of pain in chronic pain patients through encouragement of positive reappraisal (Dezutter, Wachholtz, & Corveleyn, 2011).

Prayer is a religious activity engaged in on a daily basis, and the literature on daily stress suggests that building interventions around daily habits may help buffer daily stress spillover. Further, daily spiritual activities, such as prayer, have benefited marital adjustment for couples facing substantial daily chronic stress related to childcare (Grossoehme, Szczesniak, Dodd, & Opipari-Arrigan, 2014). These recent findings provide support for the potential benefits of the daily religious activity of prayer for coping with daily stressors.

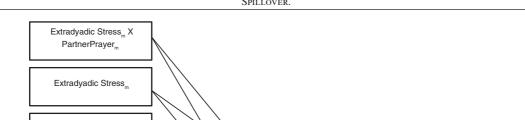
Petitionary prayer and couples. A framework for integrating religion, particularly prayer, into marital interventions when culturally appropriate has already been articulated (Beach, Fincham, Hurt, McNair, & Stanley, 2008). The use of prayer may provide a means to integrate marital interventions in a way that resonates with couples who already engage in religious practices, including prayer, on a daily basis. The use of prayer can be added to interventions as opposed to replacing them. PFPP can help couples take a break from conflict and regain perspective while interrupting negative thought cycles and utilizing a perceived source of support for their partner. In this regard it is, at minimum, functionally equivalent to the use of time-out in cognitive-behavioral couple therapy.

The approach described here integrates multiple suggestions in the daily stress literature around building on daily habits and encouraging intimates to act in a way they perceive

as beneficial for their partner. Neglecting religious beliefs ignores an important means of coping that already exists in certain populations, such as African American communities (Beach et al., 2008). In one set of studies, greater unity and trust between partners emerged for participants assigned to a condition in which they prayed with and for each other; increased unity mediated the relationship between prayer and trust (Lambert, Fincham, LaVallee, & Brantly, 2012a). These findings point to potential benefits of prayer for building unity in the relationship, and daily stress studies have shown the importance of closeness for buffering spillover of extradyadic stress onto relationship behaviors and intradyadic stress. Therefore, partner-focused petitionary prayer may be quite beneficial in the context of what is already known about buffering daily stress spillover.

Fincham and Beach (2013) built on these investigations to develop an intervention that integrates PFPP into a marital intervention. With a large sample of African American couples, they showed that this intervention, compared to the same intervention without PFPP and a self-help control group, resulted in the most beneficial long-term relationship outcome (a composite measure of satisfaction, communication, and positive intentions), at least for wives. Fincham and Beach (2014) went on to show that PFPP was linked to greater relationship commitment through increased relationship satisfaction and quality. The researchers focused on a sample of African American couples in their second study, again demonstrating effects in a population in which prayer is entrenched in cultural values and daily life. Lambert, Fincham, and Stanley (2012b) were also able to apply this intervention in the context of conflict, a common source of daily intradyadic stress. Individuals assigned to PFPP (or prayer for their close friend) were more satisfied with sacrifice for their relationship. Even in laboratory observations, individuals who had been assigned to engage in petitionary prayer for 4 weeks, rather than to a condition in which individuals recalled positive thoughts about their partner, were rated by observers as more satisfied with sacrificing for the relationship.

Furthermore, Lambert, Fincham, Dewall, Pond, and Beach (2013) were able to demonstrate in a series of five studies that praying for one's partner or close friend encouraged cooperative tendencies and forgiveness. These



Intradvadic Stress

Intradyadic Stress,

FIGURE 1. PROPOSED MODEL OF THE MODERATING EFFECTS OF PARTNER-FOCUSED PETITIONARY PRAYER ON DAILY STRESS SPILLOVER.

benefits of PFPP mirror what makes dyadic coping effective for buffering daily stress spillover. It is also the case that those instructed to pray for their partner were less vengeful; indeed, after 4 weeks, those who engaged in PFPP were rated by their partners as more forgiving than those who had not engaged in such prayer. In sum, the act of praying for the partner led to participants being more cooperative, even after a partner's hurtful behavior.

PartnerPrayer_

PartnerPrayer,

Extradyadic Stress,

Extradyadic Stress, X PartnerPrayer,

Considering findings on stress spillover to relationship behaviors that result in intradyadic stress, it would appear that PFPP is successful in altering interpersonal behaviors that often account for the spillover of extradyadic to intradyadic daily stress. Specifically, the act of engaging in PFPP was particularly successful in altering the behaviors and feelings of the one praying, which then benefit the partner being prayed for, regardless of whether the partner knows about the prayer. When one partner's behaviors are positively altered, the other partner may experience stress-relieving benefits of PFPP via more positive partner interactions. Together, the findings highlight the potential of such prayer to buffer the effects of extradyadic stress on intradyadic stress through their impact on interpersonal behaviors.

A Modest Proposal

Relationship

Outcomes_

Relationship

Outcomes,

As discussed, extradyadic stress spills over into relationships by influencing relationship behaviors and intradyadic stress, both of which predict relationship outcomes. The utility of daily PFPP for bolstering constructive couple behaviors in the context of conflict, as well as improving relationship outcomes, is clear. However, the implications of PFPP in the context of daily stress spillover and crossover in couples have yet to be addressed.

It is therefore proposed that researchers examine PFPP as a moderator that weakens the link between extradyadic and intradyadic stress (Figure 1). A daily diary design is suggested for future research, such that partners are assigned to PFPP (vs. control conditions) and both members of the dyad report daily on sources of stress, relationship behaviors, relationship outcomes (e.g., satisfaction, intimacy, closeness, trust), and perceptions of their partner's behavior. Consideration of existing religious beliefs is important in any study that uses prayer. For those where prayer is appropriate, it is hypothesized that partners engaging in daily PFPP will have opportunities to positively reevaluate stress, possibly gaining perspective in the face of stress, tension, or conflict with the

partner. Because partners who have been prayed for have reported changes in their perceptions of the praying partner's forgiveness, it is expected that partner effects will be evident. For example, partners of those who engage in PFPP should report changes in their perceptions of their partner's behavior and subsequently manifest less intradyadic stress, even when levels of extradyadic stress are high.

CONCLUSIONS

Religion has been implicated as an important component in appraising and coping with stressors, including daily stressors. Moreover, prayer is a religious activity often perceived as enlisting support for coping with stress, and PFPP may improve interactions and perceptions in the relationship with positive outcomes for the relationship. A model is suggested for examining the moderating effects of PFPP on the spillover of extradyadic to intradyadic stress and ultimately relationship outcomes. It is expected that PFPP will buffer the effects of daily extradyadic stress on the relationship for both partners. Future research should explore the potential impact of religion, in particular the effects of PFPP, on stress spillover in couples.

The current review shows that research on daily stress in couples over the past decade continues to build on theory and research on the daily stress spillover of extradyadic stress to relationship behaviors and subsequent intradyadic stress and relationship outcomes. Suggestions are provided to advance understanding by addressing methodological concerns, including the diversity of samples and collection of daily data from both partners. Finally, our analysis of the literature concluded with discussion of the neglected role of religion and prayer in daily stress spillover research. Specifically, examination of petitionary prayer for the partner appears promising and may potentially aid couples in buffering the effects of daily stress spillover. Future research will benefit from combining the knowledge of daily stress spillover in couples and the benefits of partner-focused petitionary prayer.

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