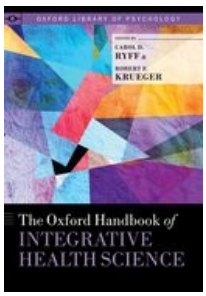

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CHAPTER

10 Intimate Partner Relationships and Health

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Abstract

The linkages between intimate relationships and superior physical and mental health are well documented. Contemporary scholars explore under what conditions, for which outcomes, for whom, and through which pathways marriage and other intimate partnerships affect health. The chapter summarizes conceptual frameworks for understanding marriage and health, and contemporary empirical studies yielding four main discoveries: Relationship status is powerfully linked to health in cross-sectional studies, yet weaker associations are found in longitudinal studies that account for social selection; the protective effects of romantic partnerships vary based on characteristics of the union; the marriage–health nexus varies based on gender, race, and age; and (d) integrative science approaches have advanced understanding of the pathways linking social relationships to health. The review draws on population-based longitudinal studies, notably the Midlife in the United States (MIDUS) study. Implications of contemporary research on marriage and health for policy and practice are highlighted.

Keywords: intimate relationships, marriage, health, romantic partnerships, integrative science, social relationships, Midlife in the United States, MIDUS

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Introduction

The World Health Organization (2016) defines health as "complete physical, mental, and social well-being and not merely the absence of disease or infirmity." Social relationships are among the most powerful influences on health, as they provide economic, social, and psychological benefits that protect one's physical and emotional well-being. Although social relationships encompass ties to parents, children, siblings, friends, acquaintances, and colleagues, most studies of adult health focus on the protective effects of marriage, which is presumed to be the most salient relationship for most adults. The assumption that marriage (or a committed long-term intimate relationship) is protective for all persons and all health outcomes has been challenged in the past decade, however. Contemporary scholars have moved beyond the question of whether partnership status affects health and instead explore under what conditions, for which outcomes, for whom, and through which pathways marriage and other intimate partnerships affect health.

In this chapter, we synthesize contemporary theories and empirical research that explore how intimate partner relationships affect physical and mental health over the life course. We begin with an overview of conceptual and methodological frameworks for understanding linkages between romantic partnerships and health, highlighting the distinctive hypotheses generated by social causation versus selection models. We then review contemporary empirical studies that have yielded four main discoveries: (a) Relationship status is powerfully linked to health in cross-sectional studies, yet weaker associations are detected in longitudinal studies that account for social selection; (b) the protective effects of romantic partnerships vary based on structural and emotional characteristics of the union; (c) the marriage–health nexus varies
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based on one's gender, race, and age; and (d) integrative science approaches, encompassing measures and
↳
models from behavioral and biomedical sciences, have advanced our understanding of the pathways linking social relationships to health. Our review of the literature draws heavily on large population-based longitudinal studies, most notably the Midlife in the United States (MIDUS) study, which collects extensive biological indicators of multiple organ systems. We highlight the implications of contemporary research for policy and practice and consider directions for future research.

Intimate Relationships and Health

Social Causation and Selection Perspectives

Research dating back to Emile Durkheim's (1897) seminal work *Suicid*e documents that social relationships —especially intimate partnerships—are powerfully linked to health, where those with strong interpersonal connections have lower rates of physical and mental illness and mortality relative to those who are socially isolated. Two broad perspectives guide the contemporary study of intimate relationships and health: social causation and social selection. Both perspectives recognize that intimate relationships and health are linked, yet differ regarding the purported causal ordering. Social causation perspectives hold that the benefits of an enduring romantic partnership enhance health, whereas social selection perspectives propose that persons with good physical and mental health (and other advantageous attributes, such as richer socioeconomic resources and an agreeable personality) are more likely than their less healthy counterparts to marry, remain married, and enjoy high-quality marital relationships (R. J. Turner & Brown, 2010). We elaborate on each of these perspectives and summarize empirical studies that offer at least partial support for each view.

Social Causation Perspectives

The overarching assumption of social causation perspectives is that social relationships can affect health for better or worse. Causation arguments typically take one of three forms, with each generating slightly different hypotheses about how romantic partnerships confer health benefits: the marital resource, crisis, or buffering models (K. Williams, Frech, & Carlson, 2010). The marital resource model posits that marriage and stable romantic partnerships provide psychosocial and economic resources that enhance health directly. Married persons are hypothesized to have better health than never married, divorced, or widowed persons due to the enduring benefits provided in marriage, including economic stability, emotional and practical support, and health-monitoring social control by one's spouse. Consistent with this perspective, Bierman, Fazio, and Milkie (2006) analyzed cross-sectional data from the MIDUS baseline study (1995) and found that continuously married persons had significantly lower levels of psychological distress and substance use and a greater sense of purpose in life compared to currently divorced or widowed persons. Married persons also reported less substance use and higher purpose in life relative to their never married peers. Yet, continuously married persons fared no better than their counterparts who had ended a marriage and subsequently remarried, underscoring the benefits of being married—regardless of one's pathway into the union.

The crisis model, by contrast, proposes that married persons have better health than divorced and widowed persons because of the health-depleting stressors associated with marital dissolution (D. R. Johnson & Wu, 2002). If married people enjoy well-being levels superior to their formerly married counterparts, the gap is attributable to the stress of the divorce or spousal death, as well as secondary stressors generated postdissolution, such as financial difficulties, loss of emotional and practical support from one's spouse, yearning for one's late spouse (in the case of widowhood), and navigating the complexities of child support and alimony (in the case of divorce). The crisis model would predict that the negative health effects of marital dissolution are relatively short-lived and diminish as time elapses since the dissolution. Additionally, never married persons should fare no worse than their married counterparts, as both have been spared the stressors associated with dissolution (K. Williams et al., 2010). Consistent with this perspective, several studies based on the MIDUS revealed only modest differences in positive and negative aspects of mental health reported by never married versus currently married persons, and these effects attenuated when demographic and psychological characteristics were controlled (Bookwala & Fekete, 2009; Carr, 2008). Studies based on surveys that track participants annually or biannually further showed that the mental health effects of marital dissolution are relatively short-lived, returning to predissolution levels of functioning within 18 to 24 months (e.g., Bonanno et al., 2002; Strohschein, McDonough, Monette, & Shao, 2005).

While the marital resource and crisis perspectives emphasize the direct effects of personal relationships on
p. 131 health, the stress-buffering perspective focuses ↳ on moderation effects, or the extent to which social relationships either intensify or mute the harmful effects of stress on health (Cassel, 1976; Cobb, 1976). Specifically, buffering perspectives posit that one's relationship is especially protective under stressful circumstances; during these times, a romantic partner may provide a range of social support functions, such as serving as an emotional confidant, offering informational assistance such as advice, or providing enacted support such as collaborative problem-solving. Just as the protective effects of social relationships are intensified under conditions of stress, the health-threatening effects of stress also are purportedly reduced for those who have sufficient support from loved ones. The buffering perspective differs from the marital resource and crisis models, which presume that the protective effects of marriage or deleterious effects of dissolution are uniform across social contexts (J. B. Turner & Turner, 2013; R. J. Turner & Brown, 2010).

In practice, scholars do not view the main effects and stress-buffering effects of social support as mutually exclusive (J. B. Turner & Turner, 2013). Few, if any, individuals have no or low stress (the "constancy-of-stress" viewpoint), so it is difficult to directly test the independent contribution of these effects. However,

most empirical studies conclude that the direct effects of supportive social relations on health, especially mental health, exceed those of buffering effects (Thoits, 2011). The relative power of direct versus buffering effects also varies based on the specific aspect of health or social support considered. For instance, the extent to which romantic relationships buffer against stress are contingent on the specific stressor considered and precisely how marital support is measured, with perceived support generally a more powerful buffer than the mere presence of a spouse or romantic partner (Thoits, 2011).

The breadth of the MIDUS data allows researchers to explore whether the protective effects of distinctive aspects of marital quality on health vary for a broad range of stressors. For example, Kang and Marks (2016) found that caring for aged parents was a predictor of self-rated health, functional limitations, physical symptoms, and chronic conditions only for those men and women in high-strain marriages. In sharp contrast, parental caregivers in more supportive marriages were fully buffered from any negative health risk of caregiving (Kang & Marks, 2016).

Social Selection Perspectives

The three social causation perspectives propose that intimate relations and health are related because the presence and quality of one's relationship affect health either directly or via buffering effects. In contrast, social selection perspectives hold that the association between social relations and health runs in the reverse direction, where health "selects" one into stable and high-quality marriages (R. J. Turner & Brown, 2010). According to this perspective, healthier individuals tend to be more attractive partners in the dating and marriage markets, relative to their less healthy peers. Moreover, those in better physical and mental health are more likely to have happy stable marriages and are less likely to divorce because spousal health problems create marital strains that increase one's risk of marital dissolution (Idstad et al., 2015; Torvik, Gustavson, Røysamb, & Tambs, 2015). Emerging research focuses on additional confounding factors that may select an individual both into superior health and to stable marriage. For instance, a particularly promising avenue is exploring personality as a precursor of both health and marriage (R. J. Turner & Brown, 2010).

Despite the clear conceptual distinctions between social causation and social selection perspectives, in practice, researchers often cannot provide definitive empirical conclusions in support of one framework versus the other, especially if their analyses are based on cross-sectional data only. However, most researchers, even those using cross-sectional data only, typically control for early life factors that may capture some aspects of social selection, including childhood health problems or low levels of educational attainment.

Intimate Relationships and Health: Empirical Studies

The contemporary study of intimate relationships and health has advanced in four major ways in recent years. First, the development of large-scale longitudinal studies enables researchers to explore prospectively how marital status and changes therein affect health, allowing a more rigorous adjudication between social causation and selection perspectives. Second, researchers have moved away from considering only whether one is married or partnered and instead consider important sources of heterogeneity within these unions, such has whether one is legally married or cohabiting, whether one is in
p. 132 a first-order or higher order (i.e., ↳ second, third) relationship, whether a romantic partnership is same or opposite sex, and whether one is in a high-quality relationship marked by warmth and support or a strained relationship distinguished by criticism and conflict. Third, large-scale data sets also enable researchers to explore the extent to which population-level patterns regarding intimate relationships in health vary based on key sociodemographic factors that shape both family formation patterns and the nature of one's relationship; the most widely studied subgroup contrasts are gender, race, and age/life course stage. Fourth, the collection of both self-reported and biological assessments of health enables researchers to explore precisely which outcomes are responsive to particular aspects of social relationships. These rich data enable researchers to identify how and through which pathways social relationships "get under one's skin" to affect health (McFarland, Hayward, & Brown, 2013). We next provide an overview of studies exploring linkages between romantic partnerships and health, with attention to subgroup differences therein, explanatory mechanisms, and the path-breaking findings yielded from biomarker data in interdisciplinary studies of relationships and health.

Marital Status and Health: Cross-Sectional and Longitudinal Studies

Studies based on both cross-sectional and longitudinal data demonstrate that married persons enjoy better health than their unmarried counterparts, although slightly different patterns emerge for mental versus physical health. Mental health studies generally find stronger support for the crisis perspective, whereas studies focused on physical health outcomes offer stronger support for the resource perspective. Cross-sectional studies consistently show that the largest mental health gaps are detected between currently married and formerly married persons, with never married persons showing outcomes roughly as good as those who are married (D. R. Williams, Takeuchi, & Adair, 1992). These patterns reflect the fact that chronic and acute stressors associated with marital dissolution can tax one's emotional resources, at least in the short term, whereas most lifelong singles adapt psychologically to their circumstances and find alternative sources of social and emotional support over the life course (Bookwala & Fekete, 2009; Carr, 2008).

Studies of physical health outcomes, by contrast, generally show that never married, divorced, and widowed persons have poorer self-rated health, more functional limitations, and a higher mortality risk than their married counterparts (N. J. Johnson, Backlund, Sorlie, & Loveless, 2000; Manzoli, Villari, M Pirone, & Boccia, 2007; Rendall, Weden, Favreault, & Waldron, 2011). These studies offer support for the growing consensus that the linkages between marriage and health reflect both causation and social selection mechanisms. Marriage enhances physical health via the mechanism of social control: Married people are less likely than unmarried persons to smoke, drink excessively, and engage in risky behaviors like drug use. Spouses, especially wives, may help their partner with health-enhancing behaviors, such as regularly visiting the doctor, exercising, eating well, and complying with medication regimens (Umberson, 1992). Partnered adults also have higher household incomes than unpartnered individuals, and economic well-being predicts good health (Carr & Springer, 2010).

Social selection also partly contributes to the physical health disadvantage of never married and formerly married persons relative to their married counterparts, especially for men. Never married men tend to be

negatively selected on the grounds of poor health and economic disadvantage; these factors compromise men's attractiveness on the marriage market and also are well-documented correlates of poor health and mortality risk (Horn, Xu, Beam, Turkheimer, & Emery, 2013; Joung, van de Mheen, Stronks, van Poppel, & Mackenbach, 1998). Unhealthy behaviors such as drinking may heighten one's risk of divorce and also are linked with physical health disadvantages (Reczek, Pudrovska, Carr, Thomeer, & Umberson, 2016).

Cross-sectional studies of marriage and health traditionally operationalized marital status as one's status on the day of interview, such as currently widowed or never married. As such, researchers could not easily ascertain the amount of time that had passed since one's marriage ended or whether one was in a long-term or fairly new marriage.[1] However, the proliferation of longitudinal multiwave data sets like the MIDUS now allows researchers to construct complex measures of marital trajectories that incorporate both current status and changes therein during the study observation period. Using these more sophisticated measures
p. 133 and data resources, researchers can assess whether the effects of marital dissolution are limited to the ↳ short-term period following divorce or spousal death (i.e., crisis) or whether they persist in the longer term due to the absence of marital benefits (i.e., resource). Some studies report an initial spike in mental health symptoms after marital dissolution, followed by a plateau or decline to baseline anywhere between 2 to 6 years later (Blekesaune, 2008; Strohschein et al., 2005), lending support to the crisis model. However, findings for physical health are far less conclusive (for a review, see Carr & Springer, 2010).

Studies using these more complex measures suggest that marital trajectories are a more powerful predictor of health than current marital status alone, and the effects of one's marital status vary based on the time elapsed since one entered or exited a particular status (Dupre & Meadows, 2007). For instance, entry into marriage is associated with reduced depressive symptoms (Musick & Bumpass, 2012; Simon & Marcussen, 1999) and increased happiness, with the happiness spike limited to the first year of marriage (Yap, Anusic, & Lucas, 2012). Conversely, marital loss is associated with increased depressive symptoms, although these effects attenuate with the passage of time (Simon & Marcussen, 1999). Studies of spousal bereavement, in particular, find that depressive symptoms are high during the first 6 months following loss, yet then return to preloss symptom levels for most widows and widowers, with the exception being those who have a lifetime history of depression (e.g., Bonanno et al., 2002).

One particularly complex study based on the National Survey of Families and Households (NSFH) examined eight different marital transition groups over a 7-year follow-up and found that continuously married adults had fewer depressive symptoms than those who either were continuously divorced/separated or became divorced/separated during the observation period. Continuously married adults also exhibited fewer depressive symptoms than those who got married during the observation period, suggesting that duration of marriage provides a proportional health benefit (Kim & McKenry, 2002). A similar study using three waves of data from the Americans' Changing Lives (ACL) study found that adults who became divorced/separated or widowed had more depressive symptoms than those who were continuously married. Additionally, continuously never married or continuously divorced/separated persons had more depressive symptoms than those who were continuously married (K. Williams, 2003), providing support for both crisis and resource perspectives.

Although empirical studies have moved the field forward in understanding the relative merits of the social causation versus social selection perspectives, the continuously married group continues to provide a distinct challenge in determining causal ordering, that is, whether their comparatively superior health is primarily due to their positive characteristics (social, health, and economic) or their length of time in marriage.

Moving Beyond Union Status: Heterogeneity in Intimate Relationships

Research on marriage and health has broadened considerably in recent years in light of sociodemographic shifts that have transformed intimate relationships. Cohabitation rates have risen precipitously over the past two decades, with the majority of newlyweds today living with their partner prior to marriage (Copen, Danielse, & Mosher, 2013). Divorce rates rose steeply in the 1970s and 1980s before plateauing in the 1990s; marital dissolutions, in turn, gave rise to increasing rates of remarriage. In 2013, fully 40% of all new marriages were a second- or higher order union (Livingston, 2014). Same-sex relationships have become increasingly accepted throughout the late twentieth and early twenty-first century, culminating in the Supreme Court's June 2015 ruling that state-level bans on same-sex marriage are unconstitutional. Alongside these trends, researchers have increasingly recognized that all marriages are not necessarily good marriages; thus, studies of marriage and health now explore more fully the range of marital experiences among those in long-term marriages.

Cohabitation

Cohabitation, or the co-residence of romantically committed unmarried partners, occupies an intermediate status between marriage and singlehood in terms of its health benefits. One analysis of multiple waves of the NSFH showed that marrying or entering a cohabiting union predicted better psychological well-being and self-rated health, relative remaining single. However, the protective effects were significantly larger for those entering marriages versus cohabitating unions (Musick & Bumpass, 2012). Some studies suggested that cohabiting partners receive fewer caregiving benefits than their married peers, contributing to the weaker protective effects on health (Marcussen, 2005). The weaker mental health benefit for cohabitation relative to marriage also is partly accounted for by cohabiters' slightly poorer relationship quality (Brown, 2000; Marcussen, 2005) and greater relationship instability (Brown, 2000, 2003).

p. 134 Just as the benefits of cohabitation are fewer than those of marriage, the relative costs of dissolving a cohabiting union are less painful. Exits from cohabitating unions are less emotionally distressing than exits from marital unions (Wu & Hart, 2002), due in part to the lower levels of emotional support reported in cohabiting versus married unions. Given the long-term trend toward cohabitation in the United States, coupled with declining marriage rates (Lamidi, 2015; Pew Research Center, 2010), we may begin to see a convergence in the health benefits of cohabitation and marriage in younger cohorts. Evidence from non-US contexts suggests that as cohabitation becomes more prevalent in a society, its benefits will more closely approximate those of marriage. One analysis of 28 European countries found substantially smaller health disparities between married and cohabiting persons in countries where cohabitation was a legally recognized family status (Soons & Kalmijn, 2009).

Higher Order Marriage

Remarriage provides physical and mental health benefits to those who have become divorced or widowed, although the protective effects of second- or higher order marriages are more modest than those observed in first marriages (Kim & McKenry, 2002). Longitudinal analyses showed that adults who remarried within an 8-year observation period exhibit fewer depressive symptoms and greater life satisfaction, compared to those who remained divorced or widowed (K. Williams, 2003). Although individuals derive psychological benefits from remarriage, they exhibit higher anxiety and substance use symptoms than individuals in their first marriage. Moreover, some studies suggested that the protective effects of remarriage are short-lived, appearing only in the early stages of the union transition (Blekesaune, 2008).

Research on third- or higher order marriages is sparse, yet one study suggested that marital benefits decrease with marital order; those in third marriages experience more depressive symptoms and substance

use than their counterparts in second marriages (Barrett, 2000). Other studies showed that remarried persons who had experienced multiple marital dissolutions (as opposed to one) had a higher risk of poor physical health, including chronic conditions, mobility limitations, and worse self-rated health relative to their continuously married counterparts (Hughes & Waite, 2009). Although researchers have not definitively identified the reasons why marriage is less protective for those in higher order unions, Hughes and Waite (2009) attributed the pattern to the stressors associated with divorce or widowhood, noting that challenges such as custody difficulties or the strains of having cared for a dying spouse may have a lingering impact on health, even after one remarries.

Same-Sex Marriage

Relatively little is known about the health of men and women in same-sex unions, although a report by the Institute of Medicine (2011) suggested that chronic stress associated with sexual minority status may undermine the benefits of being in a stable partnership. Until very recently, population-based studies of the health consequences of same-sex unions had limited data available, which required researchers to merge data from multiple sources in order to generate a sufficient sample size of gay, lesbian, or bisexual persons. One analysis of merged data from the General Social Survey (GSS), National Health and Social Life Survey (NHSLS), and the Chicago Health and Social Life Survey (CHSLS) found that partnered gays and lesbians were similar to married persons and unmarried heterosexual cohabitors in terms of self-rated health, but fared poorer on measures of happiness (Wienke & Hill, 2009). However, a more recent analysis of national data challenged this conclusion by showing that, at similar levels of socioeconomic status (SES), being in a same-sex cohabiting relationship was associated with worse self-assessed health than being in a different-sex marriage (Liu, Reczek, & Brown, 2013).

An important question for future research is whether the protective effects of same-sex unions vary based on whether the couple is legally married. Emerging evidence suggests that same-sex marriage affords benefits similar to opposite-sex marriage and is more protective than same-sex relationships that are not legally recognized, due in part to the provision of health insurance in marital unions (Gonzales & Ortiz, 2015). One analysis of California Health Interview Survey data found that psychological distress was not significantly distinguishable among persons in same-sex marriages; lesbian, gay, in same-sex registered domestic partnerships; and heterosexual unions. However, same-sex persons in more casual relationships reported significantly more distress (Wight, LeBlanc, & Lee Badgett, 2013).

Marital Quality

p. 135 Early research on marriage and health was based on the implicit assumption that all marriage is good ↳ marriage, where marital status was a proxy for the presence of enduring emotional, social, and instrumental support (Carr & Springer, 2010). In sharp contrast, recent studies underscored that the marriage benefit is limited to those who enjoy supportive, high-quality unions (Hawkins & Booth, 2005; Proulx, Helms, & Buehler, 2007). Some studies even concluded that unmarried persons reported better mental health than married persons in unhappy or high-conflict marriages (Hawkins & Booth, 2005; K. Williams, 2003).

Gender differences in the health impact of marital quality are inconsistent, with some studies suggesting that marital quality is more important to women than men (Proulx et al., 2007) and others revealing no differences (K. Williams, 2003). However, as Umberson and Williams (2005) argued, even if marital quality similarly affects men and women, women experience consistently lower levels of marital quality over their lives than men. Thus, the gender gap in marital quality may place married women at a health disadvantage compared to men.

Recent research from the MIDUS and other studies has shifted the focus away from marital quality as a predictor of health and instead explored whether marital quality moderates the effects of marital transitions. For example, Bourassa, Sbarra, and Whisman (2015) found that the impact of marital dissolution on well-being was conditional on marital quality and gender. For women who were continuously married between the 1995 and 2004 waves, marital quality was positively associated with life satisfaction. In sharp contrast, women in higher quality marriages who subsequently divorced showed the lowest levels of life satisfaction, although comparable patterns were not detected among men. These results offer support for Wheaton's (1990) thesis that the effects of stressful life events are conditional on one's role history. Exiting a marriage that one found emotionally rewarding exacts a more severe psychological toll than exiting a marriage that was a source of distress or conflict.

Subgroup Differences

Early research on marital status and health can be characterized as universalistic in its assumptions. One's relationship status was presumed to have similar health benefits for all individuals, regardless of their other personal characteristics, such as race, gender, and age. However, recent empirical research recognizes that the health effects of both marital status and quality may differ for women versus men, blacks versus whites, and older versus younger adults. For instance, men are more likely than women to be married, reflecting their lower rates of widowhood and higher rates of remarriage following marital dissolution. Whites are more likely than blacks to marry and remain married. Older adults are more likely than their younger counterparts to be widowed but less likely to have ever divorced (see Manning & Brown, 2014). At the same time, marital quality varies considerably across population subgroups, where men, whites, and older adults consistently report better marital quality than women, blacks, and younger persons (Carr & Pudrovska, 2015). Consequently, the impact of marriage and marital quality and health may differ starkly by subgroup, reflecting the different meanings and cultural expectations associated with marriage held by these groups.

Gender Comparisons

Jessie Bernard's highly influential essay on "his" and "her" marriage introduced the then-provocative notion that marriage may carry different meanings and benefits for men versus women. She argued that conventional marriage placed burdens on women, who were expected to be the primary caregiver to both spouse and children. In sharp contrast, men were the beneficiaries of women's care provision and would reap greater health benefits from marriage than women (Bernard, 1982).

However, most contemporary research challenges Bernard's thesis and instead detects minimal or no gender differences in the association between marriage and mental health (K. Williams et al., 2010). For instance, transitions into marriage are associated with reduced depressive symptoms equally for both men and women (Simon & Marcussen, 1999). Moreover, the survival benefit of marriage extends equally to both men and women (Manzoli et al., 2007; Rendall et al., 2011).

Some studies do find evidence of gender differences in the health benefit of marriage, although not always in the direction theorized by Bernard. Among older adults in the Health and Retirement Study (HRS), married men had fewer depressive symptoms than cohabiting men, although there was no difference in depressive symptoms between cohabiting versus married women. Additionally, cohabiting men had fewer depressive symptoms than widowed men, a protective effect that was not found among women (Brown,
p. 136 Bulanda, & Lee, 2005). Taken together, these findings support Bernard's hypothesis that ↳ men benefit more from marriage (and cohabitation) than women.

However, studies focused on physical health outcomes generally concur that marital dissolution is more harmful to women than men. Data from the National Social Life, Health, and Aging Project (NSHAP)

indicate that older women who experienced at least one marital disruption had greater cardiovascular risk than their continuously married counterparts, an effect that was not found for men (McFarland et al., 2013). Analyses of five waves of Health and Retirement Survey data found that, relative to remaining continuously married, marital loss was associated with increased risk of cardiovascular disease (CVD) among women but not men (Zhang & Hayward, 2006). Additionally, remarried women (relative to those in a first marriage) had almost twice the risk of CVD; conversely, remarriage conferred only marginally increased CVD risk for men (Zhang & Hayward, 2006). In this study, the disproportionate CVD risk among women who experienced marital loss was explained by the joint influences of diminished financial resources and emotional distress, supporting the marital crisis model.

Despite these findings for studies based on current cohorts of older adults, most contemporary research challenges Bernard's thesis and instead detects minimal or no gender differences in the association between marriage and health. For instance, transitions into marriage are associated with reduced depressive symptoms equally for both men and women (Simon & Marcussen, 1999). Similarly, regardless of gender, adults who become separated or divorced and those who were either continually never married, continually divorced/separated, or continually widowed exhibited more depressive symptoms than adults who were continually married (K. Williams, 2003). Moreover, the survival benefit of marriage extends equally to both men and women (Manzoli et al., 2007; Rendall et al., 2011). These findings—all derived from longitudinal analyses from nationally representative data sets—provide empirical support for the marital resource model in that, regardless of gender, married adults tend to experience better health outcomes than both adults who experience a marital loss and those who are continually never married.

Race Comparisons

Black–white differences in marriage rates in the United States are large, persistent, and widening over time (Mouzon, 2018; Pew Research Center, 2010). In 2010, fully 20% of black women and men aged 45 and older had never married; comparable rates for white women and men were 9% and 7%, respectively (Elliott, Krivickas, Brault, & Kreider, 2012). It is not just whether one marries that differs considerably by race; the stability and quality of marriage also differ, where blacks have higher rates of divorce (Stykes, Gibbs, & Payne, 2014) and lower marital quality (Broman, 2005; Dupre, 2016; Goodwin, 2003) relative to whites. Blacks also have the highest rates of nonmarital childbearing relative to all other racial/ethnic groups (Child Trends Databank, 2015). Taken together, these findings suggest that marriage may play a less central role in the lives of blacks relative to other racial and ethnic subgroups. However, surprisingly little research has explored racial differences in the health benefit of intimate partnerships.

Mounting research suggests that associations between marital status and mental health (D. R. Williams et al., 1992) and mortality risk (N. J. Johnson et al., 2000) are stronger for whites than blacks (N. J. Johnson et al., 2000). The benefits of marriage vis-à-vis cohabitation also are more pronounced for whites than blacks. One recent analysis of longitudinal data from the National Health Interview Survey (NHIS) found that married white men and women had lower mortality risk than their cohabiting counterparts although comparable differences were not detected for blacks (Liu & Reczek, 2012). Scholars attributed these divergent patterns to the fact that blacks' unions may provide fewer benefits than whites' unions, given blacks' lower levels of self-reported marital quality (Broman, 2005) and fewer economic gains conferred by marriage—especially for women (Banks, 2011). Other studies suggested that nonmarital relationships are particularly consequential for the health and well-being of African Americans. For example, blacks report higher levels of social support from other family and nonfamily relationships, including friends and members of one's religious community, which may reduce the centrality of marriage to their health (Chatters, Taylor, Bullard, & Jackson, 2009; Peek & O'Neill, 2001; Taylor, Chatters, Woodward, & Brown, 2013).

Life Course Comparisons

The proliferation of longitudinal studies that encompass multiple birth cohorts, like the MIDUS and the HRS, enable researchers to explore whether the protective effects of marriage, marital transitions, and
p. 137 marital quality vary at different life course stages. ↳ Some inquiries explore whether marital transitions, such as widowhood or divorce, have more powerful effects on health when the transitions occur earlier versus later in the life course. Recent studies showed that marital dissolutions are associated with improved self-rated health among young and midlife men, a pattern that was not found among older men (Simon & Marcussen, 1999). Remarriage also is less beneficial for the self-rated health of older versus younger adults (K. Williams & Umberson, 2004). The greater salience of marriage to older adults rather than younger adults and younger adults' greater resilience in the face of dissolution reflect a range of developmental factors, including the heightened importance of close relationships as individuals age and reestablish their priorities as their future time horizons diminish (Carstensen, Isaacowitz, & Charles, 1999).

An in-depth exploration of marriage and health among older adults in the MIDUS study further pinpointed which aspects of marriage are most critical to older adults' mental and physical health. Bookwala (2005) examined associations between five aspects of marital quality (disagreements, positive spouse behaviors, negative spouse behaviors, global marital quality, and marital communication) and four health outcomes: number of physical symptoms, chronic health problems, disability, and perceived health. The results provided strong evidence that negative spouse behaviors, such as criticizing or arguing, outweighed positive indicators in affecting all four health outcomes. These results may reflect the fact that negative interactions are relatively rare in later life marriages and thus are particularly consequential to one's health. They also reflect the fact that negative marital interactions may be a consequence of other individual-level and dyadic factors, including the personality of one or both spouses and shared stressors that give rise to the marital conflict (Iveniuk, Waite, Laumann, McClintock, & Tiedt, 2014). Alternatively, these negative behaviors may be a direct response to one partner's poor health or health behaviors (Bookwala, 2005). The rich array of marital quality items and far-ranging indicators of stress, including work–family conflict and financial strain, in the MIDUS allow researchers to pinpoint specifically which aspects matter most for health.

Bringing in Biology: Integrative Science Approaches to Marriage and Health

Data from large federally funded surveys like the MIDUS, HRS, and NSHAP have advanced our understanding of romantic relationships and health by enabling researchers to pinpoint the specific biological outcome or system affected. The MIDUS obtains a detailed set of biomarker measures, including indicators of immune, cardiovascular, nervous, musculoskeletal, and circulatory system health. These rich data allow researchers to identify specific physiologic responses to marital status, trajectories, and quality as well as the proximate pathways linking romantic partnerships to health. Moreover, the use of observable biomarker indicators overcomes inherent limitations in marital quality studies that employ subjective measures of health outcomes (e.g., depressive symptoms, self-rated health); such studies may fail to fully account for underlying traits like trait neuroticism that may shape subjective appraisals of both marital relations and health.

For example, using MIDUS data, Donoho, Seeman, Sloan, and Crimmins (2015) explored how marital status and quality affect high-frequency heart rate variability (HF-HRV), considered an early indicator of a compromised cardiovascular system. They found that current marital status was unrelated to one's HF-HRV. However, marital transitions were a significant predictor, where continuously married adults fared better than their peers who had experienced marital dissolution and subsequently remarried during the 10-year observation period, providing support for the marital resource model. The study also found that persons whose marital strain increased during the study period experienced poorer HF-HRV.

The research team also sought to pinpoint the specific aspects of marital quality linked to two measures of immune system functioning: interleukin 6 and C-reactive protein (Donoho, Crimmins, & Seeman, 2013). Positive aspects of marital interaction were protective for both outcomes, but for women only. Negative aspects of marital interaction, by contrast, had weak and inconsistent associations with inflammation markers, and these associations attenuated after psychosocial and behavioral factors were controlled. Similar findings emerged in a study exploring the impact of marital quality on bone mineral density, an indication of skeletal system health. Researchers found that higher levels of spousal support were linked with superior bone health for women only (Miller-Martinez et al., 2014). These findings suggest that women's physical health may be protected only in the context of highly rewarding and supportive
p. 138 marriages, whereas men may still receive health-enhancing support in ↳ marriage regardless of the union's emotional quality (Boerner, Jopp, Carr, Sosinsky, & Kim, 2014).

The MIDUS also obtained two novel sets of biological measures: neuroimaging and sleep actigraphy data. These data are particularly useful for elucidating how and why social relationships affect health. For example, the neuroimaging data in the MIDUS allow researchers to assess the pathways through which marital strain affects mental health; one plausible pathway is via compromised emotion-responding processes. Lapate and colleagues (2014) used these data to explore how marital stress predicts reactivity to, and recovery from, emotional provocation. A subset of MIDUS participants watched positive, neutral, and negative pictures while corrugator supercilii muscle activity, considered an objective measure of affective state, was tracked continuously. The researchers found that marital stress triggered short-lived responses to the positive pictures, indicated by a less persistent decrease in corrugator activity after picture offset. These results suggest that chronic strain within a marriage may indirectly affect health and well-being by reducing protective emotional responses to positive life experiences.

The use of both self-reported and biomarker data also provide further insights into how and why marital dynamics affect sleep, a topic of great concern in recent years as it is both a source and consequence of compromised health. Using MIDUS data on both self-reported sleep problems and actigraph-based measures of sleep efficiency, Selcuk, Stanton, Slatcher, and Ong (2017) found that one key aspect of marital quality, perceived partner responsiveness (i.e., the extent to which people feel understood, cared for, and appreciated by their romantic partners), had strong effects on both outcomes. However, these effects were largely accounted for by the mental health benefits of spousal support. The strong associations between partner responsiveness and self-reported sleep problems were accounted for by one's lower levels of depression and anxiety, while the association between partner responsiveness and actigraphy measures of sleep was explained by reduced anxiety symptoms.

Studies using biological measures of stress reactivity, such as cortisol, similarly showed that that mental health symptoms are a critical pathway linking social relationships to physical health. Slatcher, Selcuk, and Ong (2015) found that partner responsiveness in the 1995 MIDUS predicted higher cortisol values at awakening and steeper (i.e., healthier) cortisol slopes at the 10-year follow-up. Taken together, the biological data in the MIDUS, in tandem with rich self-reported data, help to pinpoint the psychosocial pathways through which marital relationships affect health, as well as the specific physiological changes that contribute to the mortality and self-rated health disparities documented in studies using only self-reported or administrative record measures of health.

Conclusion and Future Directions

The protective effect of social relationships on health is one of the most persistent findings in social science research, dating back to seminal work by Durkheim (1897). Yet, in the past two decades, researchers have moved beyond explorations of whether marriage affects health and instead explore why, how, for whom, for which outcomes, and which kinds of relationships enhance health. Drawing on large-scale longitudinal studies like MIDUS, researchers have moved the field forward by adopting an integrative science approach, considering the ways that psychosocial and biological factors link social relationships to both self-reported measures of physical and mental health and biological markers of immune, cardiovascular, musculoskeletal, and nervous system functioning.

This emerging research powerfully shows that relationship quality is often more critical to health and functioning than marital status. This is an important finding because marital support, strain, and partner responsiveness are potentially modifiable factors. Although public policy initiatives in the early twenty-first century encouraged marriage, current programs have the more realistic goal of encouraging healthy relationships. Such programs include conflict resolution, communication, health behaviors, and financial literacy modules (Halford, Markman, & Stanley, 2008).

The health-enhancing effects of high-quality romantic relationships cannot be understated, yet it is essential to recognize that at least part of these benefits reflect social selection characteristics, that is, the preexisting traits of persons who enter in and out of stable and legally sanctioned partnerships. For example, researchers have found that the deleterious physical health effects of lifelong singlehood and divorce (especially for men) and the relatively weak health protection provided by cohabitation reflect the fact that divorced and cohabiting persons tend to have fewer economic resources than their counterparts who remain married. As such, a financial safety net that provides at least minimal quality housing, food,
p. 139 healthcare, and economic security may be the most effective policy ↳ for promoting physical and emotional well-being among adults across all relationship statuses.

Future research should build further on important subgroup differences that shape the association between intimate relationships and health. In addition to continued research into how gender, race/ethnicity, and life course stage shape romantic involvement and health, recent demographic shifts suggest cohort differences in cultural expectations and experiences of marriage and romantic partnerships may shape these associations. Fewer people are marrying and staying married for life, and the proportion hoping to someday marry also is diminishing, especially for current cohorts of young adults. For instance, although 75% of Americans were married in 1960, only 50% were married in 2010 (Cohn, Passel, Wang, & Livingston, 2011). While marriage was once a near-universal goal among single young adults, a recent survey conducted by Pew Research found that fully 12% of single people said they did not ever want to marry, while another 27% were unsure if they wanted to marry someday (Cohn, 2013).

Consistent with these data, an innovative study using longitudinal NHIS data demonstrated the shifting association between marriage and self-rated health between 1972 and 2003, finding that the protective effects of marriage diminished over the study period (Liu & Umberson, 2008). With marriage becoming less central to American life, future research should investigate the health consequences of emerging relationship forms (e.g., "living apart together" couples in nonresidential relationships) and, relatedly, the specific health risk and protective factors associated with the continually growing never married population. The original MIDUS data, in tandem with the new Refresher cohort, span birth cohorts from the 1920s through the 1980s and are ideally suited to exploring cultural shifts in the meaning and health implications of marriage. The MIDUS also provides a sufficiently large sample size to explore further the ways that cohort intersects with other personal characteristics like SES that are consequential for health. For instance, the marriage decline has been especially pronounced among low SES young adults (Cohn et al.,

2011); future research could inform public policy, whereby safety net initiatives could focus on social, health, and economic programs (decoupled from marriage) to address this vulnerable young population.

Note

1. Another important limitation of cross-sectional studies is their inability to test the social selection versus social causation perspectives directly, given that current marital status, potential factors that either positively or negatively select individuals in certain marital status categories, and current health are measured at a single point in time.

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