

by Theodore F. Robles



# Close Relationships and Health

STUDYING THE EFFECTS OF MARRIAGE AND RELATIONSHIP QUALITY ON HEALTH

EVERY DECEMBER, *U.S. News and World Report* publishes a list of “50 Ways to Improve your Life” for the coming year. In the December 19th issue of 2004, one of the recommendations in the “Get Well” section that dealt with ways to improve your health was to “Get Married.” Indeed, across a number of epidemiological surveys, married individuals report greater happiness and life satisfaction, and have a lower risk of clinical depression than

their unmarried counterparts. In addition to these benefits, marriage has benefits for physical health. However, marriages characterized by low marital satisfaction and high conflict have damaging effects on physical health, and the effect of poor marital quality on health may differ between men and women.

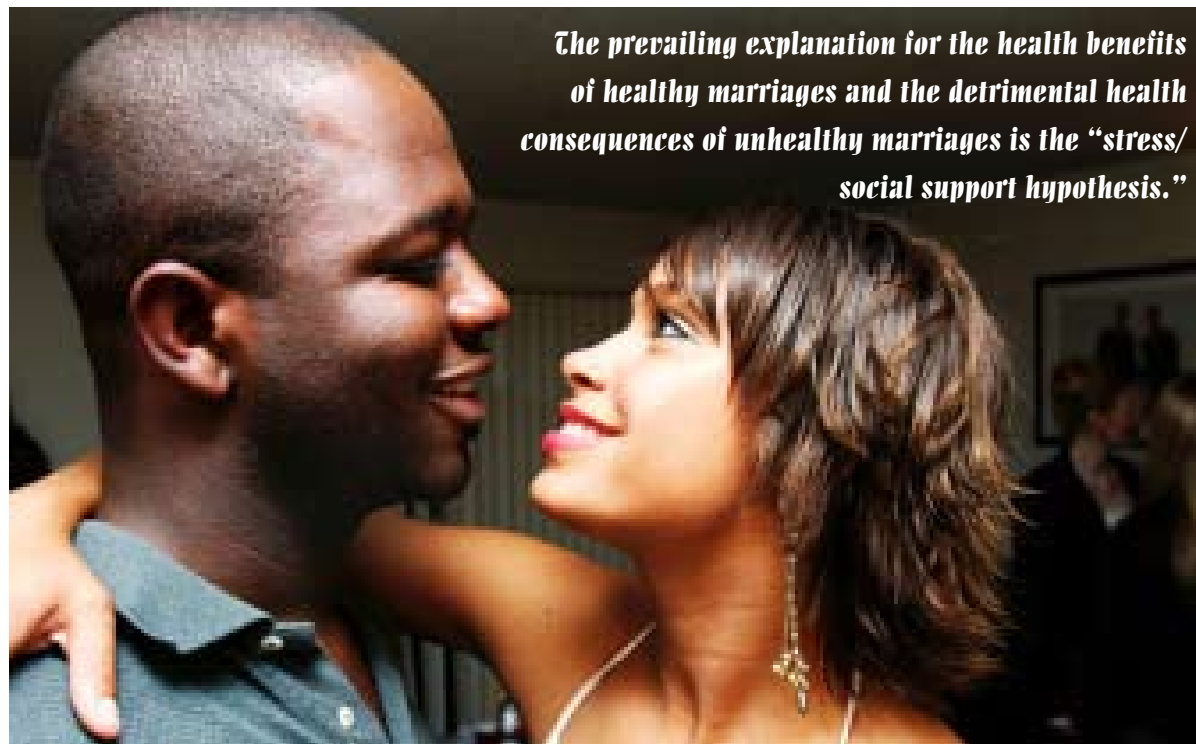
While marriage on average is related to better overall physical health, people in troubled marriages have worse mental and physical well-being

compared to people in satisfactory and happy marriages. The most dramatic examples of the relationship between marital *quality* and health come from studies of patients with existing chronic medical conditions. Low marital quality, typically measured through self-report, predicted earlier mortality over long-term follow-up (between 4 and 8 years) in end stage renal disease and congestive heart failure patients. Beyond mortality, low marital quality is also related to

Close Relationships and Health, *continued from page 1* increased risk of coronary events (including cardiac death, acute myocardial infarction, and revascularization procedures) in patients with cardiovascular disease and in a large 9,000-person cohort of British civil servants, increased illness symptoms over longitudinal follow-up (4 years) in healthy married couples, and increased pain flares in patients with rheumatoid arthritis.

In contrast to research on gender differences in marital status on health, where men derive greater health benefits from marriage compared to women, research on marital quality and health shows an opposite pattern. Specifically, the effects of marital quality on health are generally stronger for women compared to men. For instance, in a longitudinal study of participants in the Alameda County Study, increased marital strain was related to increased self-reported ulcer symptoms at 8- to 9-year follow-up in women but not men. In addition, large, prospective longitudinal studies also show that lower marital quality is related to increased risk of disability and mortality over long-term follow-up (6–15 years), again in women but not men.

The prevailing explanation for the health benefits of healthy marriages and the detrimental health consequences of unhealthy marriages is the *stress/social support hypothesis*, originally put forth by Bonnie Burman and Gayla Margolin. The stress/social support hypothesis suggests



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that stress and support in marriages influences health through a number of pathways. These pathways include influences on the individual’s cognitions, emotions, health behaviors, coping behaviors, and biological systems. The model was further elaborated on by Janice Kiecolt-Glaser and Tamara Newton, who suggested additional pathways, including mental health and psychopathology, and individual differences in personality such as hostility. While health behaviors (like physical activity, diet, compliance

with physician recommendations) are important, relationship quality may have a direct impact on our biology as well, independent of these health behaviors.

Marital quality can also directly impact biological systems that are involved in psychological responses to stress and physical health. The three biological systems that have received the most attention in studies of marriage and health are: The *cardiovascular system*, which is responsible for circulating oxygen, nutrients, and numerous cells



throughout the body; the *neuroendocrine system*, which helps the brain regulate important functions like energy balance and reproduction via chemical messengers called hormones; and the *immune system*, which defends the body against threats such as bacteria, viruses, and parasites. Beyond serving a wide range of life-sustaining functions for the body, malfunctions or deficiencies in these systems are involved in most major chronic diseases.

Studies that focus on the impact of relationship quality on biology involve healthy couples that are disease-free and have very healthy lifestyles, and others statistically control for the presence of unhealthy behaviors. These studies typically involve studying married couples while they discuss problems in their relationship, coupled with measuring activity in one or more of the biological systems. Marital quality is typically measured by coding levels of hostile behavior during these discussions, such as put-downs and criticism, during marital discussions. Thus, studies of marriage and biological systems have been mostly restricted to interpersonal interactions in laboratory settings.

What do these studies find? Hostile behaviors during discussions are accompanied by cardiovascular, neuroendocrine, and immune changes. Couples who show greater hostile behavior during marital discussions have more elevated blood



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ships between marital quality and health, and marital quality and physiology, are influenced by gender-related traits and cognitive schemas (like relational interdependence, where one's goals and self-concepts center around close relationships, like "It is important for me to care for and give to others"), and social roles (like the "second shift") which explain why marital quality has stronger effects on health for women compared to men.

What else might explain gender differences in biological responses to conflict? More recent research suggests that other traits, like sensitivity to rejection, and the social dynamics of the relationship, like who has more power in the relationship and who is in the position of demanding change, also play important roles. Notably, while attributes like relational interdependence and sensitivity to rejection, or social dynamics like power and demanding change, tend to "cluster" with women in relationships, these attributes are by no means exclusive to women. Indeed, in more recent studies, men who are sensitive to rejection, have low status in the relationship, or are in the position of demanding change in the relationship also have large cardiovascular or endocrine responses to marital conflict. Overall, this suggests that while psychological characteristics that explain larger biological responses to marital problem discussions tend to be observed in women, they are by no means limited to women.

Moreover, while personality is generally stable, power dynamics within a couple can fluctuate over time and can differ at different stages of the life-course. We study dating couples and are beginning a program of research to study retiring couples. Preliminary data from our research in dating couples shows an opposite pattern of biological responses to the same types of discussions—the men are showing larger responses to these discussions than women. We are particularly interested in what happens to relationships and health when one spouse retires and the other continues working. Other research suggests that husbands' retirement and wives' continuing to work can adversely affect marital satisfaction in both spouses. We are interested in studying the physiological and health effects of this pattern.

While marital quality affects biological systems that impact health, does marital quality or behavior in the laboratory impact on disease-relevant outcomes? Any number of psychological or physical stimuli can cause changes in heart rate, blood pressure, stress hormones, or immune function, without any measurable impact on health or disease. Recent studies have begun to address whether links between marital functioning and biological systems are relevant for actual disease. For example, coronary artery disease results from the buildup of plaques within the walls of arteries that supply the heart, a process that takes place over several decades before an individual actually experiences a heart attack. A number of studies

now suggest that low marital quality and increased hostility within marriages are related to changes in biological measures that reflect the plaque accumulation process (for example, ultrasound measures of carotid artery thickness, computerized tomography scans of the heart). These studies suggest that being in an unhappy marriage is related to greater accumulation of artery blockage over several years.

In our laboratory, we study the effects of relationship quality on health by focusing on a very short-term health outcome, the skin's ability to heal following a minor irritation. We and others have demonstrated that such relatively brief psychological stressors as giving a speech in front of an unfriendly audience or such naturalistic stressors as final exams can delay wound healing. Moreover, recent work demonstrates that high hostile couples take longer to heal a standard size wound compared to low hostile couples. Our preliminary data suggests similar results in dating couples, where couples reporting high relationship satisfaction and commitment heal a standard minor wound faster compared to couples reporting low satisfaction and commitment.

If marital quality is an important predictor of health and if people's relationships and marriages can improve through interventions, can we improve their health? Psychosocial interventions that focus on intimate partners or other family members of chronically ill patients are effective in improving mental health outcomes and in some limited cases, patient survival. These interven-

tions, particularly interventions that focus on the relationship between the partner and the patient, also improve the mental health of the partner. However, these studies focus primarily on coping with illness, rather than improving relationships, which is the usual focus of marital therapy.

There is still a lot that we do not know about the links between marriage and health. For instance, few studies have focused on marriages or relationships and health in non-Western cultures, or in same-sex relationships. We do know that the links between marriage and health are strong and that helping people develop healthy relationships may pay off with large dividends for both psychological and physical well-being.



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