

Mini Review

Marriage and Obesity: Clinical and Public Health Considerations

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Abstract

In a long course of research across many countries, marriage is associated with better health and lower mortality. Obesity is an important exception to this empirical regularity, since most studies find that marriage is associated with higher body weight. This is an important exception in understanding and applying the nexus of health and marriage in practice. Nonetheless, important clinical and public health body weight. A spouse is in many ways a mirror on the health of his or her partner, and body weight is the most readily observable risk factor. This review essay argues for a greater focus on family-based delivery of health care.

Keywords

- Marriage
- Health
- Obesity
- Public health

INTRODUCTION

Family and health are inextricably connected. Around the globe, when people are asked what matters most in life, they respond, “to have a happy family life and good health” [1]. Families are the mechanisms where genetic endowments are created, where health habits and behaviors develop, and where people receive caregiving, sustenance and support. They are also, unfortunately, sometimes sources of stress and places of conflict which can negatively affect health [2]. On balance, however, family relationships promote good health. For instance, extensive research for many decades has demonstrated that married people enjoy better health than the unmarried [3-5]. International evidence also shows that married people live longer than the unmarried [6-8].

Though research point towards a “protective” effect for marriage in terms of health and longevity, obesity is an important and largely unexplained exception. Evidence accumulated over the past couple of decades suggests that marriage tends to be associated with *higher* BMI, both in cross-sectional analyses and in longitudinal studies [9]. Some have proposed that the attendant social obligations of marriage induce frequent eating and higher consumption of calorie-dense foods [11]. However, a consensus on why marriage and obesity defy the common pattern is not available. Marriage and social relationships may possibly be a mitigating factor that leads individuals to have higher body weight but better metabolic health. Research in recent years suggests that some overweight and mildly obese people have better metabolic health (and greater longevity) than “normal” weight counterparts [12], though little is known about whether social factors play a role in this phenomenon.

Body shape and size have a profound effect on the formation of relationships since they affect personal attractiveness. The general idea that people marry those who are like them is referred to as homogamy or positive assortative mating, and the tendency to marry people with similar characteristics is very strong in all societies. Characteristics that are positively sorted include health [13] and body weight [14]. Furthermore, living in a shared environment and sharing similar diet and other life patterns may serve to strengthen the spousal concordance in obesity that is present at the time of marriage.

An understanding of the nexus between health and marriage has important implications. The following sections outline briefly some important implications for both clinical practice and for public health. These implications work together to argue for a more family-focused approach to promote health.

CLINICAL IMPLICATIONS

Spousal BMI is a risk factor

Spousal concordance in health, generally, and body mass, in particular, should be much more than a social curiosity for clinicians. This is because spousal health can be used as an important risk factor for poor health. In an era of specialized medicine where family members often see different health care providers (and are often on different health care plans), a health care provider will often see patients in isolation from their families or any information on family members' health. This is unfortunate because the health status of family members is as predictive of an individual's health as are strong social factors such as education and income [15]. For a wide number of common conditions such as diabetes, hypertension, or ischemic heart

disease, having a spouse with the condition raises a person's own risk for the *same* disease [16].

Clinicians typically do not ask about spousal health variables as part of a medical history or an examination. Indeed, some clinicians and some patients may see such queries by a provider as overly personal or even invasive. Certainly there are institutional and perhaps legal and ethical barriers to obtaining spousal information, but the demographic research suggests these queries might improve care. The health status of a husband or wife provides non-specific but important information that is relevant to a patient's history and current health status. This includes BMI. At a minimum, an overweight or obese spouse should raise the same concerns about obesity-related illnesses as the patient's own weight.

Because of the importance of marital status as a risk factor for disease, clinicians would be wise to pay more attention to the family and social environment in which patients live. The effects of marital transitions, such as divorce or widowhood, or marital conflict may show up in changes in weight or in weight-related disease. For instance one research study found that poor marital adjustment among men can lead to an increase in metabolic syndrome among their wives [XG]. Unfortunately, there is no clear, established pattern from the literature concerning whether the stress induced by the family environment will result in weight gain or weight loss.

Children are also at risk

Obesity is a highly heritable trait. However, only limited progress has been made in identifying the specific genes that lead to obesity [17]. This leaves a large role to be played by social and environmental factors. Children, who may or may not be overweight or obese, may still share both the genetic and non-genetic risk factors that led to the obesity of their parents. Parental BMI is as important part of family medical history as are heart disease, diabetes or cancer, though parental BMI is less likely to be recorded in a medical history. This family history becomes even more important as the children of obese individual's enter adulthood and become at greater risk for obesity-related illness.

Informal health care is often provided by spouses

The family is an informal provider of health care services. Spouses, in particular, influence diet, exercise patterns, and frequency of physician visits. They remind their partners to take medication, and they provide advice on what treatment options to consider. They assist with the activities of daily living, providing housekeeping and laundry services. They help remember medical providers' instructions, and they suggest over the counter medicines and supplements. The day to day business of preserving and promoting health happens in the family. And when health starts to decline, the chronic stress of care-giving accelerates the aging of the immune system [18].

Obesity is a function of long-term familial processes, both genetic and non-genetic. Furthermore, the health risks associated with body weight are influenced by these same processes. Body weight depends on countless small decisions about diet and exercise over decades. Health care providers, nutritionists, physical therapists and other professionals try to influence

behavior, but they will likely be much more effective if family members are part of that process. Research with longitudinal data has shown, for instance, that the weight of spouses tends to move together over time [19] and that obesity-related behaviors are highly correlated between spouses [20]. This co-movement in body weight is not necessarily due to intentional efforts to lose weight or to engage in exercise together, but it does show that weight-related behavior of spouses is linked in some way. Health care professionals may be able to exploit these spousal linkages for better results. Persistent weight loss is very hard to maintain, and spouses and other family members may be key to achieving that challenging goal.

Because of the spousal concordance in health and body weight, married individuals who are disabled or in otherwise poor health are much more likely to have a spouse who is also struggling with health issues, sometimes the *same* health issues, than are healthy persons. It always make sense for the provider to monitor in some way the capacity of a patient's family to provide the crucial informal services that are necessary for care to be effective. The clinician should keep in mind that because those in poor health are much more likely than the average patient to have a spouse in poor health, they are likely to *receive* care from a spouse and less likely to be able to *provide* care to a needy spouse.

A renewed focus on family-based health care delivery has potential benefits

The implications discussed above point towards different models of health care delivery (and health-care finance and medical record keeping) that are family-based. This includes coordination with providers of specialty care. At one time, a "family practice" often meant that the same physician treated all the members of a family, but that model has faded in the health care systems of modern economies. Just as policies are moving in the direction of strong coordination of care across providers, health care would improve if we saw stronger coordination across family members as well. Crucial information is lost when patients are treated in isolation from their familial environment. Obviously, privacy needs to be protected, since not all spouses want their health concerns shared with spouses, but when a clinician faces the task of evaluating all the factors that are influencing patient health, the familial environment is surely a crucial piece of the puzzle.

PUBLIC HEALTH IMPLICATIONS

Promotion of healthy marital relationships should be a public health priority

In the early 1960s, extensive data became public that showed a strong link between smoking and health. However, not until a decade later did researchers uncover—including in the same data used to investigate smoking--that marriage was associated with better health. In fact, the research showed that divorce was about as dangerous to a man's health as a pack-a-day smoking habit [21]. Since that time, research cited above has verified the health benefits of strong marriages for both men and women in studies around the globe.

Despite this research in social science, medicine, and epidemiology, the promotion of positive marital relationships

has never made it, in a significant way, onto the public health agenda. If anything, advocates of public health have been critical of marriage, sometimes seeing it as an obstacle to social justice, particularly for women. The causal mechanisms through which marriage promotes health are still not fully understood (the same can be said for smoking), but there is enough solid evidence to make promotion of healthy marital relationships a priority in public health, including both mental and physical health. An important part of this new agenda would be more research uncovering the causal mechanisms between marriage and health. Much progress regarding mechanisms exists already, such as important linkages between marital quality and immune system functioning.

Whether an agenda to improve marriages will yield benefits on the obesity front is not known. As noted earlier, marriage seems to be associated with modest weight gain. However, that weight gain may mask a number of benefits associated with positive relationships, particularly in the area of mental health. Similarly, the weight loss associated with marital breakups may actually be an indicator of unhealthy levels of stress [22]. As noted above, public health programs to promote better diet and more exercise should be designed to exploit the social support already a part of a good marriage.

Spousal Concordance in BMI deepens social inequalities

A social consequence of assortative mating is that the joint occurrence of obesity is associated with lower socioeconomic status (SES). The relationship between SES and health goes in both directions—low SES is both a cause and result of poor health. And because spouses tend to be similar in many ways, the problems that occur when both spouses are in poor health, are highly concentrated among lower SES households [23]. Some research has suggested that part of the increase in obesity prevalence is due to greater assortative mating on the basis of obesity, which leads to higher obesity prevalence in the next generation [24].

CONCLUSION

Effective health promotion, whether in a clinical or public health setting, has to account for the real social environment in which people live. Families are the fundamental building blocks of those social environments. High body weight provides an interesting case for thinking about the inter-relationships between marriage and health because it affects the formation of unions and because the relationship between body weight and marriage runs counter to what has been found with other health variables. Previous research shows that marriage is protective of health, but this does not hold for a healthy body weight. This is a puzzle that needs more research attention. Marital stress poses a wide range of negative health effects, but these are not generally detected in body weight. Indeed, those undergoing marital crises may lose weight, which, unless the person already has a low BMI, may not be seen by the clinician as a sign of underlying health problems.

A variety of important implications for clinicians and public health officials exist with respect to the relationship between

marriage and health. Many of these springs from the spousal concordance in body weight that has been shown in many studies. In important ways, one's spouse is a mirror reflecting the health behaviors and risk factors that affect the patient. This suggests that medical care might reap significant benefits from moving towards a family-based health care delivery model. And since body weight is a health indicator that is among the easiest risk factors for an observer to detect, it can play an informative role in clinical care of patients and their families.

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