

Social relationships and health: What do we know and where do we go from here?

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In one of the latest studies describing associations between social relationships and health, Piwońska and colleagues [1] provide further evidence for a conclusion now backed by greater than 50 years of research: social relationships appear to be important — perhaps even essential — for optimizing our healthspans and lifespans.

Since the publication of the original groundbreaking social network studies in the 1970s, linking larger social networks to a reduced risk of premature death [2], the field has evolved tremendously in both size and quality. Beyond the now widely replicated findings connecting social relationships and numerous health indicators, there are, for example, compelling empirical arguments for at least all the following theses:

- Social relationship quality and perceived social support — not just social network size — are associated with improved health and longevity.
- The health benefits associated with social relationships are surprisingly robust across culture, age, and gender groups.
- Social relationships may be as important to mental health and quality of life as they are to physical health.
- Social relationship effects on health may be gradual — perhaps manifesting slowly over decades — or sudden, as demonstrated in life-threatening cases of takotsubo cardiomyopathy (broken heart syndrome) [3].
- The relationship between social networks and health is probably bidirectional

— health may affect the number and quality of social relationships and social relationships (depending on quality) may improve or worsen health.

- Even in the absence of randomized controlled trials, there is an increasingly strong case — based on traditional Bradford-Hill criteria [4], experimental animal models [5], and even Mendelian randomization studies [4], that at least some of the associations between social relationships and health are causal rather than merely correlative.

This is an impressive resume of research-based social relationship findings. Yet amidst this still growing literature, perhaps the most vexing scientific and public health challenge regarding social relationships and health is what we still do not know: what to do about loneliness and social isolation.

Thankfully, this practical constraint may slowly be changing. As summarized in the paper by Piwońska and their team [1], the evidence supporting both statistically and clinically significant associations between social relationships and health is compelling. In fact, the quality of evidence is now so persuasive that the World Health Organization (WHO) [6] and US Surgeon General [7] each took unprecedented steps in 2023 to highlight the importance of social relationships to public health and begin the difficult process of translating social relationship and health science into solution-based initiatives. In the former case, the WHO tasked a commission of international experts to identify strategies to

promote increased social connectedness [6]. The Surgeon General report [7], meanwhile, contains a comprehensive summary of social relationships and health research and proposes a “six pillar” strategy for enhancing social connections at different levels of society in the US.

The convergence of scientific support by leading health organizations towards the cause of promoting social relationships for improved public health should be a cause for celebration among researchers. It represents a multi-decade process of scientific case-building involving hundreds of investigators and many thousands of research participants. However, the path forward for social relationships and health scientists arguably remains no less daunting than before.

The landscape of social relationships has changed greatly since the days of the Alameda County study and the initial Social Network Index. Relationships in the categories that formerly comprised the most common examples of social relationships on the Social Network Index — such as marriage, church attendance, children, and community involvement — have since plummeted in many advanced countries. Novel relationship categories based on technology, such as video conferencing and social media interactions, have emerged so rapidly that their short- and long-term consequences for health remain unclear while nonetheless being accelerated by the COVID-19 pandemic.

Finally, even while organizations such as the WHO and the US Surgeon General grapple with the already multilayered complexities of promoting healthy social relationships in the present, the future appears ready to offer even more dynamic challenges. What role, for instance, will relationships with artificial intelligence companions play in reducing loneliness and social isolation [8] or relationships that exist only on virtual and extended reality platforms [9]? As abruptly and disruptively as social media and video relationships emerged in the early 21st century, the next wave of technology-based social relationships may arrive even faster and with even greater public health implications. Current and future generations of social relationship and health scientists must be ready to explore these new frontiers.

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