



Loneliness Among Cancer Caregivers is Associated with Biological Markers of Disease Risk

Caring for a loved one with cancer can cut people off from many routine, but important, social interactions outside the home. This experience of isolation, currently compounded by the COVID-19 pandemic, places cancer caregivers at higher risk for adverse health outcomes over time, suggests a new study from researchers at Sylvester Comprehensive Cancer Center at the University of Miami Miller School of Medicine, the Department of Psychology at UM, and the David Geffen School of Medicine at UCLA.



Research suggests cancer caregivers are at higher risk for adverse health outcomes over



time.

Loneliness emerged as the most significant factor driving this risk, suggesting that medical providers should assess whether family caregivers of cancer patients are experiencing significant feelings of loneliness or social isolation. At the same time, factors such as resilience and finding meaning in their caregiving experience can be beneficial.

“I was really surprised to see that loneliness had such a strong association with biological markers indicative of risk for multiple chronic health conditions,” said lead author Youngmee Kim, Ph.D., professor in the Department of Psychology’s Health Division. “We are all social animals. When our basic need to be connected with others, whether emotionally or socially, is not there, we may suffer health consequences.”

Dr. Kim and her colleagues studied 41 family caregivers of patients with colorectal cancer about their experiences, which was published in the journal *Psychosomatic Medicine*. The researchers confirmed that loneliness was associated with elevated biological risk.

“This strategy maximizes the validity of the data, assuring the phenomena we observed are robust,” Dr. Kim said. “I don’t think biology would be biased against displaying what would be expected by others and society.”

Stress and gene expression

Specifically, the researchers looked at 44 genes involved in pro-inflammatory and anti-viral activity. They found that caregivers experiencing greater caregiver stress and



loneliness had greater activation of genes implicated in the Conserved Transcriptional Response to Adversity (CTRA), which reflect poorer immune responses. At the same time, cancer caregivers reporting more social support and meaning tended to have reduced CTRA gene expression.

The cancer caregivers in the study were on average 54 years old; 74% were women, and 40% were Hispanic. Participants were recruited at the University of Miami and at Northwestern University in Chicago.

“Loneliness and social isolation are robust risk factors for several health conditions,” said Frank J. Penedo, Ph.D., study co-author, Sylvester Professor of Psychology and Medicine and director of the Cancer Survivorship Program.

Social isolation and loneliness have been associated with cardiovascular disease, obesity, depression, cognitive decline and more in previous studies.

This study is part of a growing literature documenting that the psychosocial adversities that cancer caregivers face may have implications for health outcomes.

“Rightfully so, a lot of attention for caregiving has gone to Alzheimer’s disease, a devastating illness and a major, major source of stress,” Dr. Penedo said. “But caring for a cancer patient is not that far behind in regard to the stress and isolation it can bring to a caregiver.”

“When working with cancer caregivers, it is important that one asks if they feel they are getting the necessary support to help them manage their partner’s or spouse’s condition, and assess how lonely or socially isolated they feel,” said Dr.



Penedo, who is also associate director for Cancer Survivorship & Behavioral Translational Sciences at Sylvester.

Resources for caregivers

When a caregiver reports feeling lonely or isolated, it is recommended they talk to someone about it or that they are referred to available resources, Dr. Penedo said. Sylvester, for example, offers caregiver support groups. In addition, the American Cancer Society offers an interactive caregiver resource guide and more on its Caregivers and Family website.

“Speaking to people who know exactly what you are going through could help with emotional loneliness,” Dr. Kim said, whereas friends and family members may not know how to react or help. Furthermore, caregiver support groups can provide a sense of community. “You get to know other patients, as well as other family caregivers.”

Going forward, Dr. Kim plans to expand the study to include more cancer caregivers and follow them for a longer time.