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# Nonsupport Experiences of Young Adult Cancer Patients: Prevalence, Acceptability, and Outcomes of Not Receiving Support

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## ABSTRACT

This study provides foundational data regarding instances of nonsupport (i.e. instances when support was expected from someone but not received) in the cancer context. In a sample of 205 young adult cancer patients from 22 countries, approximately three out of every five patients reported having experienced nonsupport at some point during their cancer journey. Men and women patients were approximately equally as likely to have experienced nonsupport and were approximately equally likely to be recalled by a cancer patient as a nonsupporter. Results showed that patients who had experienced nonsupport reported worse mental and physical health, greater depression, and greater loneliness than those who had not experienced an instance of nonsupport. Patients were also presented with a previously published list of 16 reasons why people choose to forgo communicating support to cancer patients, and patients rated each reason's acceptability. Nonsupport reasons that assumed communicating support would create a burden for the patient (e.g. providing support would create a privacy issue; the supporter feared losing control of their own emotions) were rated as more acceptable. Reasons involving the nonsupporter making assumptions or decisions about the broader social support process were seen as less acceptable (e.g. communicating support does not help; assuming support is not desired). Together, these results demonstrate the prevalence and impact of nonsupport on cancer patients' health outcomes and provide justification for nonsupport as an important avenue for future social support research.

Receiving social support from others when coping with stressful events is an expectation in relationships (Goldsmith & Albrecht, 2011), and one stress inducing event that often generates an expectation of social support is a cancer diagnosis (Felder et al., 2019). Throughout the stages of a cancer experience, patients often expect various forms of support from a variety of relationships ranging from family members and friends (Pennant et al., 2020) to medical professionals (Dunkel-Schetter, 1984). Receiving high-quality social support can have salutary effects for cancer patients across all three dimensions of a biopsychosocial conceptualization of health (Head & Iannarino, 2019). That is, when support is communicated competently to cancer patients, they experience benefits to their mental health (Holland & Holahan, 2013), physical health (Barber, 2013), and relational health (Lichtman et al., 2008).

However, a body of research exists that argues convincingly that support may at times be viewed as unhelpful or unwanted by cancer patients for a variety of reasons (Felder et al., 2019; Ray & Veluscek, 2017; Wanzer & Czaplá, 2022). As expected, when the supportive messages received by cancer patients are problematic, psychological and relational outcomes are worse (Ray & Veluscek, 2018). In addition to some messages being less effective, researchers have also documented that the amount of support received by cancer patients can decline in the months following diagnosis (Arora et al., 2007) and that support may fail to materialize from cancer patients' support

networks whatsoever (e.g., Dakof & Taylor, 1990). The latter has been explored in recent studies, labeling the phenomenon as *nonsupport* (i.e., when support was expected but not received; Ray & Veluscek, 2018). Although studies have investigated the reasons why people avoid communicating emotional support to cancer patients (Ray et al., 2019), a foundational study investigating the prevalence of nonsupport in the cancer context has not been conducted. Similarly, the effects of nonsupport on patients' various self-reported biopsychosocial health have yet to be explored, and the question of what cancer patients perceive to be an acceptable reason for not receiving support from others remains unanswered.

Thus, the goals of this study are threefold and aim to address the issues enumerated above. Using a sample of young adult (YA) cancer patients (ages 18–39), this study provides a descriptive overview of the prevalence of nonsupport experienced by cancer patients and an initial investigation into what cancer patients view as an acceptable reason for not receiving support from others. Patients also reported various mental, physical, and social health outcomes, which may differ between those who have experienced nonsupport and those who have not. The next section begins by considering how nonsupport differs from other forms of ineffective support before exploring why instances of nonsupport matter to young adult cancer patients.

## Nonsupport and ineffective support

Although typically conceived of as a positive behavior that promotes well-being, not all supportive behaviors facilitate coping (see Goldsmith, 2004, specifically Table 1). Prior and ongoing research programs have also attempted to delineate why support is ineffective. For example, certain supportive messages and actions may create psychological reactance (Tian et al., 2020), challenge the legitimacy of a person's reactions to a stressor (Holmstrom et al., 2005), or may be perceived as face threatening (Goldsmith, 1994)—even when

support is only being offered and not actually provided (Floyd & Ray, 2017).

In Goldsmith's (2004) normative approach to supportive communication, she differentiates the task, relational, and identity implications of supportive interactions. Studies have shown that both nonsupport and ineffective support can lead to task failure (i.e., impeding the coping process) and can generate negative relational consequences. For example, receiving less emotional support than one desires (i.e., a support gap in which a recipient is under-benefited) leads to negative relational consequences (McLaren & High, 2015). Likewise, women with breast cancer reported similarly high levels of negative relational consequences when experiencing nonsupport or receiving a low-quality emotional support message (Ray & Veluscek, 2018).

Nonsupport is distinct from other forms of ineffective support because there is no message content to process or evaluate. Because no attempt to facilitate coping occurs, the negative outcomes generated by nonsupport are primarily focused on the relational and identity aspects of the support process. Relational issues of nonsupport may create acute feelings of loneliness if a recently diagnosed cancer patient expects to experience solidarity from a others but is met with the complete absence of support. Similarly, cancer patients already experience an identity disruption after diagnosis (Iannarino, 2018) and experiencing nonsupport may result in the patient experiencing identity issues such as feeling devalued or increasingly identifying as a victim. The following section explores in greater depth why experiencing nonsupport may be particularly detrimental to young adults with cancer.

## Why do nonsupport instances matter?

When a young adult is diagnosed with cancer, they often need several forms of support that can come from a variety of relationships within their social networks (for overview, see Zebrack, 2011). Ensuring that young adult cancer patients' psychosocial needs are met is particularly important. Young adult cancer patients commonly report isolation and alienation (Newby et al., 2000) as their diagnosis can become a barrier to experiencing several typical young adult experiences such as starting a career and starting a family (Kent et al., 2012). However, when family, friends, and other supporters meet young adult cancer patients' psychosocial needs, they achieve greater well-being and adjustment to their new identity as a cancer patient (Miedema et al., 2007; Zebrack, 2011).

Given the psychosocial needs of young adult cancer patients, experiencing nonsupport may have a particularly negative effect on their well-being and adjustment. Helgeson and Cohen (1996) notes that cancer patients most strongly desire emotional support in the form of opportunities for open communication that allow for discussing and processing cancer-related concerns. For example, Taylor et al. (1986) found over half of cancer patients wished they could converse more openly about their cancer with family members. Unsurprisingly, having someone not communicate support whatsoever was noted by cancer patients to be a particularly hurtful behavior (Dakof & Taylor, 1990). Given the potentially potent negative psychosocial effects of nonsupport, it is worth

**Table 1.** Young adult cancer patients' demographic information ( $N = 205$ ).

	<i>n</i> (%)
Race/Ethnicity	
White	159 (77.9%)
Black/African American	25 (12.3%)
Asian	13 (6.4%)
Latinx/Hispanic	14 (5.4%)
Native American/Alaskan Native	2 (1.0%)
Native Hawaiian or Pacific Islander	2 (1.0%)
Prefer Not to Answer	1 (0.5%)
Sexual Orientation	
Straight	155 (75.6%)
Bisexual	33 (16.1%)
Gay/Lesbian	10 (4.9%)
Pansexual	3 (1.5%)
Asexual	2 (1.0%)
Queer	1 (0.5%)
No Response	1 (0.5%)
Education <sup>1</sup>	
Did Not Complete High School	3 (1.5%)
High School or Equivalent	21 (10.2%)
Technical, Trade, or Vocational School	5 (2.4%)
Some College but no Degree	31 (15.1%)
Associate's Degree	8 (3.9%)
Bachelor's Degree	85 (41.7%)
Master's Degree	40 (19.5%)
Doctoral Degree (PhD)	4 (2.0%)
Professional Degree (e.g., JD, MD, DDS)	7 (3.4%)
Prefer Not to Answer	1 (0.5%)
Geographic Location <sup>2</sup>	
Europe	117 (57.1%)
North America	66 (32.2%)
Africa	17 (8.3%)
Oceania	5 (2.4%)
Household Income <sup>3</sup>	
\$0	3 (1.5%)
\$1–\$9,999	19 (9.3%)
\$10,000–\$24,999	39 (19.0%)
\$25,000–\$49,999	56 (27.3%)
\$50,000–\$74,999	33 (16.1%)
\$75,000–\$99,999	26 (12.7%)
\$100,000–\$149,999	14 (6.8%)
\$150,000 or More	7 (3.4%)
Prefer Not to Answer/No Answer/Unsure	8 (3.9%)
Romantic Relationship Status <sup>4</sup>	
Single/Not in a Committed Relationship	72 (35.1%)
Committed Dating Relationship	71 (34.6%)
Engaged	13 (6.3%)
Married	47 (22.9%)
Prefer Not to Answer/No Answer	2 (1.0%)

Percentages for each attribute may not equal 100% exactly due to rounding error. Ethnicity/race sums to greater than 100% because 12 participants identified as two or more races or ethnicities.

<sup>1</sup>Highest level of education completed unless otherwise noted.

<sup>2</sup>In total, participants reported living in 22 different countries. Although the majority of participants lived in Europe, the most frequently reported place that participants lived was the United States ( $n = 58$ ). Participants living in the United States reported living throughout 25 different states.

<sup>3</sup>Income reported in \$USD.

<sup>4</sup>No participants reported being divorced, separated, or widowed.

exploring the prevalence of this phenomenon. The next section considers whether young adult cancer patients are characteristically different from other patients and therefore more likely to experience nonsupport.

### **Are young adults with cancer particularly susceptible to experiencing nonsupport?**

Young adult cancer patients might be particularly susceptible to encountering nonsupport related to their cancer experience for several reasons. First, young adult cancer patients' friends are likely to be young and have less experience communicating emotional support regarding major stressors such as cancer (Carlson et al., 2000). Friendships and other close relationships such as romantic relationships at this age also tend to be less solidified (Iannarino, 2018). As a result, some studies report young adult cancer patients receiving support from few friends (e.g., Hauken & Larsenn, 2019) as well as frequently losing friends, including close friends, after a cancer diagnosis (Iannarino, 2018; Kent et al., 2012). Young adult cancer patients also experience friends avoiding the topic of cancer (Iannarino, 2014), and this may be due to a lack of experience or feelings of discomfort regarding supportive interactions with a friend who has been diagnosed with cancer. Thus, although friends are an important part of young adult cancer patients' support networks (Zebrack, 2011), and even though cancer patients expect their friends to provide support, it appears many friends choose to engage in nonsupport by either avoiding the topic or the patient altogether.

Similarly aged friends are not the only source of support for young adult cancer patients, though. Parents and other family members are typically part of a young adult cancer patient's core network of supporters. However, prior cancer research has shown that families sometimes avoid discussing the emotional and practical issues associated with a terminal cancer diagnosis (Caughlin et al., 2011), and a lack of familial support or support occurring within strained family relationships can impede effective coping (Miedema et al., 2007).

Finally, regardless of relationship, cancer as a disease has an acute ability to elicit feelings of fear, vulnerability, anger, and sadness for those who have not been diagnosed with cancer (Wortman & Dunkel-Schetter, 1979). These emotions may be particularly strong in the context of a young adult battling cancer, whose diagnosis has occurred at an age when many important life milestones are imminent but have not yet occurred for the patient (Iannarino, 2018; Kent et al., 2012). As a result, some would-be supporters may engage in nonsupport as a way of avoiding a reminder of their own mortality (Kent et al., 2012).

### **What are the consequences of nonsupport for young adult cancer patients?**

There are at least two reasons to believe that instances of nonsupport are associated with greater negative effects on young adult cancer patients' biopsychosocial health outcomes. First, it is reasonable to believe that instances of nonsupport have a similar effect on patient outcomes as other instances of problematic support messages that were actually communicated.

Whereas some studies have documented the consequences of cancer patients receiving low-quality support (e.g., Helgeson & Cohen, 1996; Ray & Veluscek, 2017), few studies have investigated the effects of nonsupport on cancer patients' outcomes. One study by Ray and Veluscek (2018) did find that breast cancer patients rated the experience of nonsupport as generating less emotional improvement than receiving a low person-centered message (i.e., a message that criticizes and blames the message recipient for their experience). The same study also reported that nonsupport and receiving a low person-centered message generated approximately equal levels of negative relational ramifications (i.e., viewing the relationship with the other as weakening). Of note, these outcomes encompassed both mental and social health issues, but did not include any outcomes related to physical health. The results of this study are important nonetheless, as they establish that experiencing nonsupport is a negatively valenced event, similar to receiving upsetting, unhelpful, or otherwise problematic forms of enacted support.

Other studies that have investigated the general absence of or lack of support provide further reason to believe that an instance of nonsupport could have deleterious effects. In general, studies have shown that "stress and the absence of social support are reliably associated with immunosuppression" (Baumeister et al., 2001, p. 353) and cancer patients with less social support prior to treatment reported greater pain and inflammation after treatment (Hughes et al., 2014). Moreover, the negative factors within support networks have been shown to have greater influence on adjustment and well-being than good supporters (Finch et al., 1989). Specific to the cancer context, Manne et al. (1997) note that negative aspects of spousal support (many of which were classified as avoidant behaviors) had a stronger influence on cancer patients' well-being than positive support behaviors.

The second line of reasoning as to why nonsupport would negatively influence outcomes is drawn from expectancy violations theory (Burgoon, 1993). People generally have expectations for how others will act in a social interaction (Jones, 1986), and these expectations are based on social norms and person-specific knowledge (Burgoon & Walther, 1990). This includes expectations for receiving support from others when coping with stressors (Wentowski, 1981). When expectations are not met, an expectancy violation has occurred, and instances when interactions go worse than expected (i.e., negative expectancy violations) typically produce negative outcomes (Burgoon, 1993). Thus, nonsupport, by definition, involves an expectancy violation in which someone expected to provide support fails to attempt to do so (Ray & Veluscek, 2018). For example, in a study of breast cancer patients, a negative expectancy violation regarding their quality of life (i.e., their quality of life did not meet their expectations) predicted several negative outcomes across multiple follow-up surveys (Bettencourt & Manning, 2016). These outcomes included both psychological outcomes, such as depression, but also the physiological outcome of fatigue.

Finally, it is worth considering whether a single instance of nonsupport can generate negative outcomes. Expectancy violations theory notes that people pay greater attention to events that violate their expectations and subsequently engage in

a sensemaking process to interpret what has occurred (Burgoon, 2016). Additionally, the negativity bias (i.e., the innate human tendency to give greater attention and meaning to negative events; see Baumeister et al., 2001) would also suggest that a single instance of nonsupport could have an influential effect on outcomes. For example, cancer patients who received emotional support messages that included just one negative statement within an otherwise competent support message rated those messages as significantly less effective than messages with no negative statements (Ray et al., 2020, 2021). The same studies found that cancer patients also rated the supporters as significantly less competent supporters when their messages included just one negative statement. These findings align with what Kanouse and Hanson (1972) call negativity dominance – the phenomenon in which one negative event can overpower the positive aspects of a broader set of events. Later research suggests that negativity dominance is particularly strong when negative stimuli occur alongside positive stimuli (Royzman, 2000). Thus, in the context of this study, a single instance of nonsupport may have an outsized effect on patients' outcomes because it negatively violates their expectations for support and negative events tend to be more powerful than positive events. Specifically, we hypothesize the following outcomes would be affected by nonsupport given prior research on outcomes related to negative expectancy violations (Bettencourt & Manning, 2016) and nonsupport (Ray & Veluscek, 2018):

**H1a-e:** Compared to young adult cancer patients who do not report experiencing nonsupport, those who do report an instance of nonsupport report a) worse general physical health, b) worse general mental health, c) greater depression, d) greater loneliness, and e) less perceived available social support.

### What do young adult cancer patients view as an acceptable reason for nonsupport?

When a young adult cancer patient's support expectations go unmet because someone has not provided support, it is likely that the unsupported patient engages in a sensemaking process to determine why this has occurred. Expectancy violations theory and other social psychology research has established that negative events garner greater attention and cognitive processing (Abele, 1985) and often precipitate a sensemaking process (Burgoon, 1993), and sensemaking commonly occurs when coping with life's stressors (Koenig Kellas & Trees, 2013). Expectancy violations theory also notes that sensemaking typically culminates with evaluating an event as desirable or undesirable. Thus, as part of this sensemaking process, patients may create an explanatory narrative that Schlenker (1980) refers to as a "worst case" reading of the situation. For example, a worst case reading of a nonsupport instance could be creating the narrative that the nonsupporter did not communicate support because "they hate me or think I deserve to suffer." But it is unlikely all cancer patients will generate "worst case" readings of nonsupport. People sometimes create narratives that reframe negative events in a more positive light

(Koenig Kellas et al., 2020). Thus, some cancer patients may create more positive explanations for why they have not heard from certain individuals, such as the person wanting to prevent negative emotions that might arise from another conversation about cancer. Given the many reasons why nonsupporters did not provide emotional support (see Ray et al., 2019), it is likely that cancer patients will view some of these reasons as more or less acceptable reasons for nonsupport. Stated formally:

**RQ:** To what extent do young adult cancer patients view various reasons for nonsupport as more or less acceptable?

## Methods

### Participants

Participants were 205 young adult cancer patients ranging in age from 18–39 years ( $M = 28.52$ ,  $SD = 5.35$ ) at the time of participating in the study. To qualify for the study, participants must have been initially diagnosed with cancer or had a cancer recurrence between the ages of 15 and 39 years of age. The average age at the time of the patients' initial cancer diagnosis was 21.93 years ( $SD = 6.08$ ). Ninety-three patients reported having a cancer recurrence after their initial diagnosis, and the average age when this occurred was 24.44 years ( $SD = 6.06$ ). The majority of participants were women ( $n = 122$ ) or men ( $n = 77$ ), with some participants identifying as a third gender/non-binary ( $n = 4$ ; 2.0%), or as a transgender man ( $n = 1$ ; 0.5%). One participant preferred not to share their gender identity (0.5%). Complete demographics for the sample are provided in Table 1. Detailed information about the reported forms of cancer and treatments undertaken appear in Table 2.

### Procedures

The institutional review board at the author's university reviewed and approved all procedures and materials. Participants were recruited using the company Prolific, which identified potential participants throughout the world based on the eligibility criteria discussed above. Participating in the study consisted of completing an online questionnaire hosted on the survey platform Qualtrics. The data analyzed herein represents a portion of a larger data collection that also investigated barriers to seeking support through mostly qualitative data (i.e., open-ended responses). The median time to complete the questionnaire was 26 minutes and 8 seconds, and participants were compensated \$8.00USD.

The questionnaire began with participants consenting to participate and providing demographic information and details regarding their cancer experience. Participants were then asked if they had ever experienced nonsupport related to their cancer experience. Those who replied yes were asked to think about a specific nonsupporter and to provide information about this person (gender, relation to the patient, and relational closeness). Next, all participants rated the acceptability of the 16 reasons for not communicating emotional support to someone with cancer that

**Table 2.** Details regarding cancer patients' cancer experiences ( $N = 205$ ).

	$n$ (%)
Cancer Type	
Lymphoma	39 (19.0%)
Breast	26 (12.7%)
Thyroid	20 (9.8%)
Testicular	19 (9.3%)
Leukemia	18 (8.8%)
Ovarian	9 (4.4%)
Lung	7 (3.4%)
Bone	6 (2.9%)
Other <sup>1</sup>	34 (16.6%)
Cancer Stage or Risk	
Stage 0	3 (1.5%)
Stage 1	40 (19.6%)
Stage 2	61 (29.9%)
Stage 3	36 (17.2%)
Stage 4/Metastatic	26 (12.7%)
Low Risk/Chronic Phase	12 (5.9%)
Medium Risk	2 (1.0%)
High Risk	10 (4.9%)
Not Staged or Not Recalled	9 (4.5%)
No Response	6 (2.9%)
Treatment(s)	
Chemotherapy	114 (55.6%)
Radiation Therapy	52 (25.5%)
Surgery	122 (59.8%)
Immunotherapy	5 (2.5%)
Stem Cell Transplant	4 (2.0%)
Hormone Therapy	4 (2.0%)
Bone Marrow Transplant	2 (1.0%)
Tyrosine Kinase Inhibitor Target Therapy	2 (1.0%)
No Treatment Prescribed Yet	1 (0.5%)
Primary Treatment Completed?	
Yes	178 (86.8%)
No	27 (13.2%)

Percentages for each attribute may not equal 100% exactly due to rounding error and/or patients reporting multiple cancer sites or treatments. The median distance that patients reported living from their primary health care facility was 18.64 miles. The median longest stay at a healthcare facility, such as a hospital, was one week.

<sup>1</sup>Fourteen additional cancer types were reported by five or fewer participants, and these were categorized as "Other" for the sake of brevity.

had previously been identified in a prior study (Ray et al., 2019). The questionnaire concluded with participants completing scales measuring various characteristics and health outcomes. All relevant measures used for this study are described next.

## Measures

Table 3 contains the means, standard deviations, reliability scores, range of observed scores, and intercorrelations among the study's variables.

**Table 3.** Descriptive statistics and intercorrelations of the study's variables.

Variable	1.	2.	3.	4.	5.	$M$	$SD$	$\omega$	Range
1. Physical Health	–					13.10	2.59	.70	1–19
2. Mental Health	–.66**	–				11.75	3.32	.80	1–19
3. Depression	–.55**	–.75**	–			1.78	.47	.88	1–3
4. Loneliness	–.45**	–.64**	.64**	–		2.40	.56	.93	1–4
5. Perceived Available Support	.24**	.44**	–.41**	–.60**	–	5.28	1.15	.87	1–7
6. Age	.05	.10	–.19*	–.11	.20*	28.52	5.35	–	18–39

\* $p < .01$ . \*\* $p < .001$  (two-tailed).  $\omega$  = the internal reliability statistic McDonald's *omega*. The observed range is reported above. Except for physical and mental health, which had a theoretical range of 1–20, the data for all other variables spanned the entire range of potential responses.

## Instances of nonsupport

Patients were provided with a definition of social support that included examples of various types of support. They were then asked, "Is there anyone in your life who has not supported you during your cancer experience even though you expected them to do so?" Patients who responded "Yes" were counted as having experienced nonsupport, whereas patients responding "No" were counted as not having experienced nonsupport.

## Physical and mental health

The PROMIS global short form (Hays et al., 2009) was used to collect young adult cancer patients' self-reports of their general physical and mental health. Eight of the 10 items on this scale were used to measure aspects of physical and mental health on five-point scales. Global physical health was calculated by summing the scores of four items, with higher scores indicating better physical health. Items inquired about the patients' average rating of pain, fatigue, ability to carry out daily physical activities (e.g., climbing stairs and carrying groceries), and an overall self-reported rating of their physical health. Global mental health scores were calculated by summing four other items from the scale. As with the physical health items, responses were presented on a five-point scale with higher scores on the mental health items indicating better mental health. The mental health items asked how often the patient felt bothered by emotional problems, their perception of their general quality of life, how they rate their mental health (including mood and ability to think), and general satisfaction with their social activities and relationships.

## Depression

Depression was measured using the 11-item Iowa short form of The Center for Epidemiological Studies Depression (CES-D) scale (Kohout et al., 1993). Participants reported if each item applied to them during the past week on a three-point scale with the answer options *Hardly Ever or Never* (1), *Some of the Time* (2), or *Much or Most of the Time* (3). Scores across the 11 items were averaged, and higher average scores indicated greater depression. Example items include, "I enjoyed life," "I felt sad," and "I was happy."

## Loneliness

The UCLA Loneliness Scale version 3 (Russell, 1996) was implemented to measure the extent to which patients experienced loneliness. Patients responded to 20 items presented on four-point Likert-style scales with response options ranging

from 1 (*Never*) to 4 (*Often*). After reverse coding 9 of the 20 items, an average loneliness score was calculated for each patient. Higher scores indicate greater loneliness. Example items include, “How often do you feel that you lack companionship?” and “How often do you feel that you are no longer close to anyone?”

### Perceived available social support

The Multidimensional Scale of Perceived Social Support (Zimet et al., 1988) measured the extent to which patients perceived there are people in their life who will provide support or to whom they can turn to for support. The 12 Likert-style items were presented to the patients with seven response options ranging from 1 (*Strongly Disagree*) to 7 (*Strongly Agree*). Average scores were calculated with higher scores indicating greater perceived available support. Example items include, “I can talk about my problems with my family” and “I can count on my friends when things go wrong.”

### Acceptability of nonsupport reasons

The acceptability of each nonsupport reason was measured using a single item that asked participants to rate the acceptability of reasons for someone not providing support to someone with cancer. Answer choices ranged from 1 (*Totally Unacceptable*) to 7 (*Perfectly Acceptable*).

### Nonsupporter demographic information

Participants who reported experiencing nonsupport ( $n = 127$ ; 62.0%) were asked to think of a specific person who did not provide support and to report their gender and relation to the nonsupporter. This information is provided in Table 4. Participants also reported their relational closeness to the nonsupporter using the inclusion of the other in the self (IOS) scale (Aron et al., 1992). Responses on this single-item pictorial measure were converted to numerical scores ranging

from 1 to 7, with higher scores indicating greater relational closeness. In general, people reported experiencing nonsupport from people with whom they were not relationally close, with an average relational closeness score of 2.34 ( $SD = 1.56$ ).

## Results

### Data preparation

All data preparation and analyses were conducted using IBM SPSS version 26. Instances of missing data were exceedingly rare. Out of 14,350 data points (205 participants completing 70 scaled items), there were only 14 instances of missing data (<0.1% of data was missing). Therefore, when missing data did occur, it was addressed by imputing the mean of the participant's scores on the other items in the scale.

### Exploratory analyses: Prevalence of nonsupport and gender differences

Before investigating the consequences of nonsupport and the acceptability of various nonsupport reasons, exploratory analyses were conducted to determine the prevalence of nonsupport and whether nonsupport prevalence is affected by gender. The majority of participants ( $n = 127$ ; 62.0%) reported having experienced nonsupport. Seventy-eight participants (38.0%) reported having not experienced nonsupport. The results of a chi-square test, based on the assumption that nonsupport occurs (or does not occur) at an even chance, was significant,  $X^2(1) = 11.71, p = .001$ . That is, the prevalence of nonsupport occurring for young adult cancer patients is significantly greater than chance.

Of the 77 men in the study, the majority ( $n = 48$ ; 62.3%) reported experiencing nonsupport. Likewise, of the 122 women in the study, a similar percentage reported experiencing nonsupport ( $n = 75$ ; 61.5%). A chi-square test of independence was conducted and returned nonsignificant results,  $X^2(1) = .015, p = .452$ , suggesting young adult men and women cancer patients did not differ significantly in their frequency of experiencing nonsupport.

Men were identified as nonsupporters 55.1% of the time and women accounted for 41.7% of nonsupporters (two nonsupporters did not have their gender reported and two were identified as a third gender). The results of a chi-square test did not return a significant result,  $X^2(1) = 2.35, p = .063$ . Thus, men and women do not significantly differ in their likelihood to be identified as a nonsupporter.

### Does experiencing nonsupport have consequences for young adult cancer patients?

Hypotheses 1a-e stated that young adults who have experienced an instance of nonsupport would report a variety of worse outcomes than those who have not experienced nonsupport. Two mental health outcomes (general mental health and depression), one physical health outcome (general physical health), and two social health outcomes (loneliness and perceived available support) were tested. Because these five outcomes were highly intercorrelated, sometimes positively and sometimes negatively (absolute value of the

**Table 4.** Gender and relation of nonsupporters identified by patients ( $N = 127$ ).

	<i>n</i> (%)
Nonsupporter Gender	
Man	70 (55.1%)
Woman	53 (41.7%)
Non-Binary/Third Gender	1 (0.8%)
Transgender Woman	1 (0.8%)
Not reported	2 (1.6%)
Nonsupporter's Relation to Participant	
Friend	51 (40.2%)
Sibling	20 (15.7%)
Father	14 (11.0%)
Romantic Partner/Spouse	12 (9.4%)
Mother	9 (7.1%)
Uncle	4 (3.1%)
Medical Professional	3 (2.4%)
Co-Worker	2 (1.6%)
Aunt	2 (1.6%)
Grandparent	2 (1.6%)
Other Family Member	2 (1.6%)
Neighbor	2 (1.6%)
Cousin	1 (0.8%)
Teacher	1 (0.8%)
Ex-Romantic Partner	1 (0.8%)

Percentages were calculated based on the 127 patients who reported experiencing an instance of nonsupport, as opposed to the entire sample. Percentages for nonsupporter's relations to participants do not equal 100% exactly due to rounding error.

**Table 5.** Univariate-level results of the MANCOVA testing H1a-e.

Dependent Variable	<i>F</i>	<i>p</i>	partial $\eta^2$	Experienced Nonsupport <i>M (SD)</i>	Did Not Experience Nonsupport <i>M (SD)</i>
Physical Health (H1a)	7.02	.009	.034	12.74 (2.63)	13.72 (2.42)
Mental Health (H1b)	12.24	.001	.058	11.15 (3.44)	12.77 (2.85)
Depression (H1c)	10.27	.002	.049	1.86 (.47)	1.65 (.44)
Loneliness (H1d)	2.76	.003	.044	2.49 (.55)	2.26 (.55)
Perceived Available Support (H1e)	2.52	.114	.012	5.20 (1.15)	5.44 (1.11)

Participant gender, sexual orientation, and age were included as covariates.

average  $r = .539$ ), the researcher decided to conduct a between-subjects MANCOVA. This statistical test assumes multicollinearity amongst the dependent variables. The results of Bartlett's test of sphericity confirmed that the average correlation score among the five dependent variables was significant,  $\chi^2(14) = 1407.21$ ,  $p < .001$ . The use of a MANCOVA also assumes homoscedasticity at both the multivariate and univariate levels. Nonsignificant results for Box's *M* test and Levene's test of equality of variances show that the assumption of homoscedasticity was met at both the multivariate and univariate levels.

The sole independent variable in the model was whether the young adult cancer patient reported ever having experienced an instance of nonsupport. Three covariates were also included in the model. Age of the young adult cancer patient correlated significantly with perceived available support and was therefore included as a covariate,  $r(203) = .20$ ,  $p$  (two-tailed) = .003. Exploratory Welch's *t*-tests showed a significant difference between men ( $M = 5.00$ ,  $SD = 1.27$ ) and women ( $M = 5.46$ ,  $SD = 1.04$ ) in terms of perceived available support,  $t(138.41) = -2.65$ ,  $p$  (two-tailed) = .009. Therefore, gender was included as a covariate. Finally, exploratory ANOVAs showed significant differences between participants of various sexual orientations in terms of physical health, mental health, and depression, and therefore sexual orientation was included as a covariate.

The results of the MANCOVA showed a significant main effect of nonsupport at the multivariate level,  $\Lambda = .93$ ,  $F(5, 195) = 2.80$ ,  $p = .018$ , partial  $\eta^2 = .07$ . Significant results at the multivariate level means that the univariate level results are interpretable and can provide a test of each individual hypothesis. Univariate between-subjects results showed that, compared to those who had not experienced nonsupport, those who had experienced nonsupport reported worse physical health, worse mental health, greater depression, and greater loneliness. There was no significant difference in perceived availability of social support based on whether the cancer patient had experienced nonsupport. These results are presented in full in Table 5. H1a-d are supported, whereas H1e was not supported.

### **What do young adult cancer patients view as (un)acceptable reasons for nonsupport?**

The research question asked to what extent young adult cancer patients viewed 16 different reasons for not receiving support as acceptable or unacceptable. A within-subjects ANOVA was conducted. Because Mauchly's test of sphericity was significant (suggesting the homogeneity of variance assumption was

violated), a Huynh-Feldt correction was applied. The results were significant,  $F(12.59) = 40.80$ ,  $p < .001$ , partial  $\eta^2 = .17$ , confirming that significant differences exist in the acceptability of nonsupport reasons. The three most acceptable nonsupport reasons were: not being relationally close to the patient, worries that communicating support would create a privacy issue, and that the supporter would lose control of their emotions if they tried to communicate support. The three least acceptable reasons were: the nonsupporter believing the patient already had enough support, that the patient does not deserve support, and that providing support to that patient would not be helpful. Table 6 provides detailed information on the acceptability ratings of all 16 reasons.

## **Discussion**

The goals of this study were to expand the nascent body of literature on nonsupport by exploring the prevalence of nonsupport in the young adult cancer context, the acceptability of various nonsupport reasons from the perspectives of young adult cancer patients, and the various outcomes that may be tied to experiencing nonsupport. This section provides a concise summary of the findings pertaining to these goals, considers how the findings align with prior research on social support and cancer, offers practical implications, and concludes by noting the study's limitations that can be addressed in future studies.

The first goal of the study was to investigate the prevalence of nonsupport instances in young adult cancer patients. Findings showed that nearly two thirds (62.0%) of young adult cancer patients reported at least one instance of nonsupport. The phenomenon of nonsupport was not gendered (i.e., men and women did not significantly differ in likelihood to be a nonsupporter or to experience nonsupport). Together, these findings provide a justification for the need for future nonsupport studies. Nonsupport appears to be a common experience for young adult cancer patients and this finding fits with prior research that shows that young adult cancer patients often experience friends avoiding discussing cancer (Iannarino, 2014), receiving support from few friends (Hauken & Larsenn, 2019), or losing friendships altogether after a cancer diagnosis (Iannarino, 2018). The lack of gender differences provides additional empirical evidence for MacGeorge and colleagues' (2004) argument against the cultural myth that support is a gendered phenomenon (i.e., that women are more capable and more likely than men to provide support). Interestingly, this study adds to that argument by illustrating that even the absence of support (e.g., nonsupport) does not appear to be affected by gender.



**Table 6.** Detailed analysis of nonsupport acceptability for each nonsupport reason.

Reason	Acceptability <i>M</i> ( <i>SD</i> )
The supporter is not relationally close with the person in need	4.18 (1.68)
Communicating support would create a privacy issue	4.08 (1.80)
The supporter would lose control of their own emotions	3.70 (1.70)
Providing support would violate relationship norms	3.65 (1.69)
Did not know what to say	3.64 (1.67)
No way to contact the person in need to provide support	3.63 (1.91)
Providing support would come off as self-serving or insincere	3.45 (1.59)
Communicating support would generate negative emotions	3.31 (1.65)
Has not had an opportunity to provide support yet	3.29 (1.63)
<b>Overall average across all reasons</b>	<b>3.20 (1.75)</b>
The supporter would feel uncomfortable providing support	3.14 (1.70)
The supporter is physically too far away to provide support	2.90 (1.71)
Support was not desired	2.82 (1.70)
The supporter had other priorities/their own issues to focus on	2.56 (1.67)
Other people have already provided enough support	2.51 (1.45)
The person in need does not deserve support	2.48 (1.50)
Providing support is not viewed as a helpful	1.87 (1.16)

Reasons are listed from most acceptable to least acceptable. Acceptability was measured on a seven-point scale ranging from 1 (Totally Unacceptable) to 7 (Perfectly Acceptable).

The second goal of the study was to explore if experiencing nonsupport was tied to various biopsychosocial outcomes: physical health, mental health, depression, loneliness, and perceived available social support. Results showed that those who experienced nonsupport reported significantly worse scores on all outcomes except perceived available social support. Nonsupport is a negative expectancy violation that creates multiple layers of issues for cancer patients. First, patients miss out on receiving support, and that withheld support could have had salutary effects for their mental health given that receiving support often helps patients cope with stressful aspects of their cancer experience (Holland & Holahan, 2013). Prior research has also documented the consequences of cancer patients not receiving enough support in terms of their physical health (e.g., Hughes et al., 2014). The results of the present study support this notion, although it should be noted that physical health was self-reported and not an observed outcome as it has been in other studies that have specifically tracked social support and physical health markers such as natural killer cell cytotoxicity (Lutendorf et al., 2005).

The second layer of issues created by nonsupport concerns relational consequences (i.e., issues of social health). Prior research has noted that avoidance is a particularly hurtful action that people engage in toward those they know with cancer (Dakof & Taylor, 1990), and in this study, avoidance was conceptualized as instances of nonsupport. Nonsupport may be particularly hurtful though because, in addition to not receiving support, nonsupport may convey that a relationship is not as important as originally perceived. That is, if recognition of one's stressor is an effective way of providing support (Rossetto, 2015), and if people have a fundamental need for validation and being viewed as worthy of respect (Cissna & Sieburg, 1981), then nonsupport may convey the opposite of these things. As a result, nonsupport may be viewed as a relational transgression and could create conflict or other relational issues between the nonsupporter and patient. Moreover, this new relational stressor is one that would have to be addressed in addition to the ongoing physical and mental stressors associated with cancer. Interestingly, levels of perceived available support did not significantly differ based on

whether someone experienced nonsupport; however, this may be due to a lack of statistical power given the relatively small sample size.

Overall, these findings align with prior research that has shown that the negative aspects of support may have more influence on outcomes than positive aspects of support (Finch et al., 1989; Manne et al., 1997; Ray et al., 2020, 2021). Previous research has shown that receiving high-quality support is beneficial across the physical, mental, and social domains of a biopsychosocial conceptualization of health (Head & Iannarino, 2019). The results herein suggest that nonsupport has deleterious effects across the biopsychosocial health domains.

The third goal of the study was to determine what cancer patients viewed as more or less acceptable reasons for not receiving support. Before interpreting these results, it is important to note again that the majority of cancer patients reporting a nonsupport instance were referring to people who they know but to whom they are not particularly relationally close (i.e., a weak tie), and this may have influenced the results. That said, one notable finding is that four of the five least acceptable nonsupport reasons were originally categorized by Ray et al. (2019) as recipient-focused reasons. One explanation for this trend is that cancer patients (i.e., recipients) would prefer that supporters not make assumptions or decisions about what they need, what is useful, or what is deserved in terms of support. However, this creates a dilemma, as research on one type of support – advice giving – has shown that supporters have to decide if advice is needed or desired and the timing of providing such advice (MacGeorge et al., 2008). An interesting question that remains unanswered is whether providing unsolicited support that is perceived as unwanted is as damaging as not providing support because it is assumed to not be desired, and this likely depends on the type of support communicated and the quality of that support. Moreover, cancer patients are often misperceived as being a homogenous group (Zabora et al., 2001), yet support needs can vastly differ between patients and even between individuals with the same type of cancer. For example, greater support was desired by breast cancer patients who were younger, who had recently been diagnosed,

and whose cancer was advanced (for review, see Fiszer et al., 2014). Thus, would-be supporters choosing to forgo communicating support based on their own potentially false assumptions could be viewed negatively because it prevents the patient from sharing their unique experiences and needs.

On the contrary, the four most acceptable reasons for non-support appear to share a common thread of concern that communicating support would create new or greater stress for the cancer patient. Reasons such as fear of violating relational norms, creating privacy issues, or the supporter losing control of one's emotions could all potentially create situations that would place a demand on the cancer patients' already limited time and energy. For example, forgoing communicating support out of fear of losing control of one's own emotions may have been viewed as an acceptable reason as the cancer patient might view this as the nonsupporter wanting to avoid creating a situation in which the cancer patient has to temporarily become the supporter as opposed to being the support recipient. That is, nonsupport appears to be viewed as more acceptable if it is framed as occurring in order to avoid creating a burden for the patient. This aligns with prior work on communicated support, which found that support viewed as burden-inducing is viewed as unhelpful (Rossetto, 2015), and indeed even receiving offers of support have been found to be burdensome in some situations (Floyd & Ray, 2017).

### **Theoretical implications**

Nonsupport, by definition, occurs when someone expected to provide support decides to forgo attempting to say or do anything supportive. The results of this study, and other recent work on nonsupport (e.g., Ray & Veluscek, 2018; Ray et al., 2019) have important implications for expectancy violations theory. The scope of expectancy violations theory originally focused on proxemics, expanded to consider nonverbal behavior more generally, and later expanded again to include both verbal and nonverbal communicative behavior (Burgoon, 2009). Nonsupport is a unique expectancy violation because it is not based on the content of one's message or nonverbal behavior, but rather the lack of an attempt to communicate or provide support. Therefore, the present study further expands the scope of expectancy violations theory to consider how inaction (when action is expected) can also be an expectancy violation. Similar to verbal and nonverbal expectancy violations, nonsupport is viewed as an expectancy violation because it goes against social norms and roles that are typical of close relationships (e.g., providing support, see Wentowski, 1981). Although nonsupport is conceptually the absence of communication, it has been shown to have similar outcomes to other negative expectancy violations as a result of communication actually occurring but not meeting expectations (McLaren & High, 2015; Ray & Veluscek, 2018).

Researchers should continue to explore nonsupport through the lens of expectancy violations theory. For example, it is unknown if nonsupport generates unique emotional reactions that differ from the emotions experienced after problematic support messages are actually communicated. Whereas a supporter saying "the wrong thing" may cause the recipient to experience anger or frustration, instances of nonsupport

may generate feelings of disappointment, confusion, and/or sadness. Future research should investigate this possibility. Likewise, the quality and quantity of support received by various members in one's social network may alter the expectations patients have of those whom they are yet to hear from. That is, a close friend engaging in nonsupport would be expectancy violation, but the magnitude of this violation may increase if several less close friends have already communicated support. Again, future research studies can investigate this possibility, and in doing so, can further expand the scope of expectancy violations theory and our understanding of support for young adult cancer patients.

Expectancy violations theory also proposes that people engage in sensemaking following an expectancy violation as a way to assign meaning to the violation and evaluate the violation as a positive or negative event. In the case of nonsupport, prior research has established several reasons why people forgo communicating support to cancer patients (Ray et al., 2019), and the present study determined that some of these reasons are more acceptable than others. Thus, when nonsupport occurs, an expectancy violation occurs. The unsupported person is left to make sense of this event and, depending on the reason they perceive for not receiving support, they may view the nonsupport as more or less acceptable. The following section considers the practical implications of this study and begins by considering how post-diagnosis conversations can help patients manage their support expectations.

### **Practical implications**

Most young adult cancer patients recall experiencing someone "not showing up" for them at some point during their cancer journey. As such, family members and health care providers in a recently diagnosed cancer patient's life should preventatively and proactively help patients adjust and manage the expectations they have for their potential supporters. Doing so could mitigate the negative consequences of not having one's support expectations met. Importantly, these expectation-setting conversations should happen periodically throughout the patient's cancer journey. Unmet support expectations are likely to occur when the patient transitions to a new phase of their cancer journey, but supporters do not recognize the transition and subsequent change in support needs (Felder et al., 2019).

Supporters of young adult cancer patients should also realize that their support matters, and subsequently, the absence of their support can have negative consequences. Providing support can be awkward, uncomfortable, and challenging, especially if a supporter does not know what to say or does not have experience having emotionally charged conversations about major life events such as a cancer diagnosis. However, those who know someone with cancer should realize that in many instances, doing or saying anything will be viewed as better than doing nothing (i.e., nonsupport). Simply showing up for someone with cancer reaffirms the supporter-patient relationship and demonstrates to the patient that they are valued. Moreover, not all instances of support have to be emotionally charged interactions. Support can occur in many

forms. Supporters who are comfortable with communicating emotional support and helping patients cope and adjust to cancer should utilize this skill, but those who are less comfortable with such situations should still find ways to support, perhaps by capitalizing on their own strengths. Gift-giving, sending check-in texts on important days (e.g., upon completing a round of chemotherapy), and participating in joint activities that can temporarily distract or provide a sense of normalcy are all competent forms of support.

Although some reasons for not communicating support are viewed as more acceptable than others, patients may still experience negative psychological and social outcomes related to nonsupport, regardless of the reason. For potential supporters who have, till this moment, withheld their support from a young adult with cancer, it is useful to investigate why through self-reflection. If the reason is based on assumptions about what the patient needs or the broader idea of what support does for a cancer patient, then the nonsupporter should realize this reason is likely seen as invalid by the patient. If the nonsupporter finds that their withholding of support is for protective reasons or to avoid creating a burden for the patient, this would likely be seen as more valid.

However, it may be worth conversing with the person with cancer to let them know why supportive conversations have not occurred and what barriers exist to communicating support (e.g., fear of losing control of one's own emotions and therefore causing the patient to assume the role of supporter). Or, if a decision is made to finally communicate support after a notable delay, it may be worth including a discussion of why it has taken so long to communicate support. If support is not communicated and the reason for nonsupport is not apparent, patients may generate their own narratives for why they have not received support, and it is possible that these narratives could be a "worse case" reading of the situation (Schlenker, 1980) that frames the nonsupporter in a negative way. Indeed, prior research has shown that perceived reasons for topic avoidance predicts how breast cancer patients view the person who avoided the topic of cancer (Donovan Kicken et al., 2011).

### **Limitations and future directions**

Every research study has limitations that should be noted and that can potentially serve as directions for future research. For one, although this study provides useful descriptive data on the prevalence of nonsupport for young adult cancer patients, comparisons could not be drawn against cancer patients who are either older or younger. Future studies should pay specific attention to nonsupport experiences of older cancer patients for several reasons. First, the majority of cancer diagnoses occur later in life. Second, experiences of loneliness tend to peak at two points in the lifespan: during young adulthood (18–25 years) and in older adults who are 65 years of age or older (Victor & Yang, 2012). Considering that this study showed young adult cancer patients reported greater loneliness if they had experienced nonsupport and considering prior research has shown links between older adults' experiences of loneliness and all-cause mortality (e.g., O'Súilleabháin et al., 2019), future studies should investigate issues of nonsupport

and loneliness in older cancer patients. The experience of nonsupport may be particularly potent in creating a sense of intermittent loneliness within both young adult and older adult cancer patients, and future studies should intentionally measure feelings of state-level loneliness across multiple time points.

Also of note is that the data herein was cross-sectional, and therefore causal arguments cannot be made regarding nonsupport and the outcomes tested. However, because participants were recalling whether they had experienced an instance of nonsupport from their past (prior to participating in this study) and then reported on outcomes they were experiencing at the moment of participating, it is feasible that nonsupport may indeed predict these outcomes. Such a causal argument utilizes Tate's (2015) argument for conceptual time-ordering in mediation analyses (i.e., that a predictor does not have to be measured sequentially before a mediator or outcome, so long as the mediator conceptually occurs after the independent variable). Of course, future research projects should investigate instances of nonsupport and the subsequent effects on various outcomes, but the conceptual time-ordering of nonsupport and outcomes in this study shows promise for establishing causality in future studies.

The present study also measured experiencing nonsupport as a dichotomous variable. Although research has shown that one negative event has the power to ruin otherwise positive events (Kanouse & Hanson, 1972; Royzman, 2000), which is the case in this study as reports of even a single instance of nonsupport had a negative effect on outcomes, future studies should measure and consider how many instances of nonsupport cancer patients experience. For example, several instances of nonsupport occurring in a brief period of time may lead to acute feelings of abandonment and other negative outcomes, similar to how other stressors have been modeled to "pile up" (McCubbin & Patterson, 1983; Schilling et al., 2022). Future studies can also consider the support-seeking efforts made by people desiring support from others. The hurtfulness of nonsupport may differ if support was sought or requested directly, indirectly, or not sought at all.

Although this study does answer some foundational questions regarding nonsupport, there are several more foundational questions that need to be addressed. First, the prevalence of nonsupport is still not understood in the broader cancer patient population or the general population regarding stressors beyond the cancer context. Nonsupport may be more or less prevalent across age groups, similar to other psychosocial issues such as loneliness (Victor & Yang, 2012). Nonsupport may also occur more often depending on the patient's prognosis. A terminal diagnosis, for example, may elicit particularly strong feelings of fear and sadness in potential supporters, which may increase the likelihood of nonsupport.

Second, researchers should also explore whether nonsupport is particularly deleterious for those with certain behavioral tendencies, such as grudge holding (Baumeister et al., 1998), or certain personality traits, such as heightened equity sensitivity (Huseman et al., 1987) or the tendency for interpersonal victimhood (Gabay et al., 2020). These factors may

increase the likelihood of generating a “worst case read” (Schlenker, 1980) as to why support was not provided, which may subsequently lead to worse outcomes than if someone assumes they did not receive support for a more valid reason. Third, physicians and social workers can also contribute by helping newly diagnosed cancer patients manage expectations for the amount and quality of support they will receive, and to have honest conversations around the likelihood of at least one person forgoing providing support. Finally, researchers should consider designing and implementing interventions aimed at addressing the barriers to providing support that some nonsupporters experience. This could include information on what typically makes for better and worse supportive interactions, can reinforce the value of providing support in the first place, and address fears and uncertainties that would-be supporters experience when considering providing support. Several decades of research have espoused the various mental, physical, and social health benefits of social support (Head & Iannarino, 2019), and although some instances of communicating support go better than others (Wanzer & Czaplá, 2022), the requisite first step is to encourage potential supporters to communicate support in the first place.

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