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ORIGINAL ARTICLE

Connections After Cancer: Adolescent and Young Adult Survivors' Perspectives on Forming New Friendships After Cancer

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ABSTRACT

Objective: The psychological and social challenges of an adolescent and young adult (AYA) cancer diagnosis often transcend physical health, impacting one's social network during a time when peer connections may be most crucial for support. The current study examines adolescent and young adult (AYA) cancer survivors' perspectives on how cancer impacts their thoughts and behaviors toward forming new peer relationships.

Methods: Thirty-five YA survivors (Mean age = 33 ± 5.67 years) diagnosed with cancer between 18 and 39 years participated in individual semi-structured interviews. Interviews were coded and analyzed to identify major themes.

Results: When pursuing friendships with non-cancer peers, survivors mentioned discomfort in disclosing, connection through mutual hardship, and revised outlooks on friendship. While befriending new non-cancer peers offered opportunities to be surrounded by positive people, seeking out these friendships was complicated by a desire to find people who understood hardship and could respond well to their cancer status. When forming relationships with cancer peers, AYAs emphasized the shared cancer experience, wariness of negative exposures, and consideration of similarity in cancer factors. They sought shared understanding and validation from cancer peers but were also cautious about exposure to reminders of illness and mindful that certain dissimilarities could hinder the establishment of meaningful connections.

Conclusions: Findings provide insight into the complex ways that cancer shapes AYA survivors' approach to forming friendships post-diagnosis, presenting guidance on tailored support interventions and resources that can aid in fostering healthy peer relationships and enhance well-being among AYA survivors.

1 | Background

In 2024, an estimated 84,100 adolescents and young adults (AYAs)—individuals between the ages of 15 and 39—will be diagnosed with cancer [1]. Despite receiving more distant-stage cancer diagnoses than their younger and older counterparts [2], this population retains a promising 86% 5-year survival rate [1, 3].

This results in more young survivors living with the physical and psychosocial aftermath of cancer, including potentially profound impacts on their social relationships [4, 5].

Adolescence (ages 15–19) and young adulthood (ages 20–39) are two critical life periods during which peer connections become increasingly important for normative development [6].

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Friendships during adolescence allow one to experience intimacy, emotion regulation, and empathic interaction outside the family, supporting the growth of important prosocial emotions and long-term social competency [6, 7]. Early adulthood typically involves tasks like completing formal education, deciding where to settle, beginning a career, and finding a romantic partner [8]. This period also involves the challenge of forging a strong social network to provide support throughout the often stressful experience of identity exploration, career development, and emerging autonomy [8].

1.1 | AYA Social Connections in the Cancer Context

A cancer diagnosis in adolescence or young adulthood can disrupt the normative life tasks that occur during these transitional periods [9]. Young cancer patients are often forced to move back into their childhood home, miss extended periods of school, and heavily rely on their family of origin for support throughout their cancer journey [9-11]. While same-age peers progress through typical milestones (e.g., attending college, beginning careers, starting a family), those with cancer are likely focused on treatment and recovery. The divergent life experiences between AYAs with cancer and their non-cancer peers may explain why young survivors endorse greater difficulty returning to "normal" and worse psychosocial functioning than older survivors [12, 13]. Despite barriers to peer connections, AYA survivors with strong social support demonstrate greater posttraumatic growth, lower anxiety and depression, and better physical quality of life [14-16], highlighting the role of peers in enhancing resilience and well-being among young survivors.

1.1.1 | Non-Cancer Peers

Forming relationships with non-cancer peers (i.e., those without a cancer history) marks an important step toward social reintegration post-treatment [17–19]. However, cancer can complicate this process by altering survivors' values and priorities, making it hard to relate to peers without similar experiences [18, 20, 21]. This experience may be unique to younger survivors whose non-cancer peers are less likely to have encountered a wide range of adversity, compared to older survivors who, due to their age, may more easily find others who have experienced similar challenges [22]. Additionally, worries about concealing physical markers of cancer, disclosing cancer status, and negative judgment [23, 24] may lead AYA survivors to forgo opportunities to foster new friendships, increasing isolation and hindering the process of bridging the gap between their cancer journey and their non-cancer peers' experiences [25, 26].

1.1.2 | Cancer Peers

Abundant research suggests that young people with cancer lack, yet overwhelmingly desire, connection with cancer peers (i.e., similar aged individuals who have also been diagnosed with cancer) [5, 27]. Situated in the gap between pediatric and adult

oncology, AYAs in the United States undergo treatment along-side younger children or older adults, frequently impeding their ability to naturally connect with patients in similar developmental stages [28]. To address this division, many hospitals and cancer organizations connect AYA cancer patients with one another via support groups, 1:1 connections, formal peer mentoring, and listservs [14, 27, 29]. Many young patients and survivors desire additional support during cancer treatment and recovery and will *proactively* seek connections outside the healthcare setting by engaging with community-driven organizations (e.g., StupidCancer) or cancer patients/survivors on social media [27, 30].

Connections between cancer peers frequently exist online, including through videoconferencing support groups, online discussion boards, and Facebook groups. While some report difficulty forming genuine, *offline* connections from virtual arenas, the geographical disparateness of AYAs with cancer renders these virtual platforms the preferred, if not only, possible mode of connection [27].

Friendships between cancer peers can confer benefits like boosting self-esteem through reciprocal support provision [31] but may also threaten well-being by increasing exposure to others' anxieties, fears, cancer recurrences, and deaths [27, 32].

1.2 | Present Study

Existing research does not adequately describe how AYAs think about expanding their social network post-cancer, including their attitudes and behaviors toward forming bonds with non-cancer and cancer peers. Given that supportive social relationships are a critical component of psychological healing and returning to normalcy after cancer, it becomes important to understand AYA's perspectives on forming new friendships to inform the creation of interventions that address their unique needs and challenges.

1.2.1 | Conceptual Framework

To guide our exploration, we adopted a conceptual framework informed by the stress buffering hypothesis, optimal matching theory, and similarity-attraction theory [4, 33-35]. The stress buffering hypothesis suggests that social support can buffer the cascade of stress reactions that occur in response to stressful life events and threaten well-being, positing that strong social relationships can confer better adjustment and protect well-being [34]. Optimal matching theory (OMT) emphasizes the importance of aligning support type with specific factors like controllability of the stressor [35]. In the cancer context, emotional support is hypothesized to be most beneficial due to cancer's uncontrollable nature, with appropriately matched peer support improving adjustment to disease [36]. Similarityattraction theory advances that young people seek relationships with individuals they perceive resemble themselves, particularly in terms of behavior, cultural background, and attitudes or beliefs [33]. Applied to cancer, research proposes that similarities in *understanding* (e.g., a friend's ability to empathize

with the survivor's lived cancer experience) will be prioritized over behaviors or values [4]. Taken together, these theories can help explain the social network transformation that occurs across the AYA cancer trajectory.

The current study qualitatively explored how AYA cancer survivors consider making new friends after diagnosis. Distinct from prior research, this study focused on survivors' thoughts toward expanding their peer support network, rather than the positive and negative support practices that emerge in the AYA cancer context. We also drew comparisons between survivors' thoughts toward new friendships with non-cancer versus cancer peers.

2 | Methods

2.1 | Participants

This study focused on experiences of AYA cancer survivors who participated in a larger study of cancer's impact on future-oriented thought [37]. Eligible participants were 18–39 years, received a cancer diagnosis between ages 13–39, concluded active treatment between two and 5 years prior to recruitment, and were fluent in English. Survivors with sole diagnoses of non-melanoma skin cancers were excluded.

Participants were identified by contacting AYA survivorship organizations, cancer centers, and hospitals, posting messages to online cancer support groups, listservs, and social media, and snowball sampling.

2.2 | Procedures

Eligible survivors provided verbal informed consent before participating in individual semi-structured interviews via Zoom, a HIPAA-compliant videoconferencing platform, conducted by a clinical doctoral student. The Institutional Review Board at Hunter College, City University of New York approved study procedures. The interview covered several topics including changes to values and priorities due to cancer, social functioning, cancer communication, and self-conscious emotions (Table 1). Participants were compensated with a \$45 gift card.

2.3 | Data Analysis

In the larger study, audio recordings were transcribed and then transcripts were coded using Dedoose software [38]. The study team engaged in *open coding*, where coders read transcripts independently and noted meaningful components within each. Afterward, consensus meetings were held to review each transcript and compare notes. Aside from ZA, coders were blind to the original study's hypotheses, constituting an inductive process with data-driven deliberations. The final codebook was established after three transcripts were coded by the full team. After establishing the codebook, pairs coded remaining transcripts by coding individually and then meeting to reach

consensus. Pairs were reassigned after every two coded transcripts to prevent *drift* from the codebook. Dedoose was also used to calculate percentage agreement between coders; estimates consistently exceeded 85% agreement.

The current study utilized a subset of codes from the larger study's codebook. CM and JF categorized all codes from the existing codebook as potentially related or unrelated to social connection. The relevant codes and associated quotes were pulled for review. The authors refined this subset, resulting in a final set of codes (Table 2).

Thematic analysis was used to determine themes in a datadriven manner, by clustering related quotes across codes to reveal overarching patterns [39]. Then, initial themes were reviewed using a theoretical lens informed by existing theories of social support and empirical literature on peer support in the AYA cancer context to confirm alignment of identified themes with established theoretical constructs [4, 33–35, 40]. Finally, we examined themes for any age-related differences among older versus younger participants.

3 | Results

3.1 | Sample Characteristics

The final sample included 35 AYA cancer survivors (Mean = 33, SD = 5.67, range = 18–39). No age-related differences emerged within themes. Participants predominantly identified as female (86%), non-Hispanic White (77%), and having obtained at least college-level education (77.2%). Roughly 14% identified as a sexual minority. Lymphoma (31.4%), breast cancer (25.7%), kidney cancer (14.3%), and leukemia (11.4%) were the diagnoses most commonly reported. At interview, all participants had completed primary cancer treatment, with 58% having completed treatment within the past two to 3 years and 39% within the past four to five (Table 3).

3.2 | Friendships With Peers Without Cancer

AYA's narratives revealed three major themes related to experiences making new non-cancer friends: discomfort in disclosing, connection through mutual hardship, and revised outlooks on friendships.

3.2.1 | Theme 1. Discomfort in Disclosing

Many survivors felt uncomfortable disclosing cancer status to new friends, expressing concerns about catching friends "off guard" and making them uncomfortable. Additionally, they were deterred by past experiences hearing friends' stories about grandparents with cancer and receiving unwanted advice (e.g., drink celery juice). Survivors worried that disclosing cancer status would cause friends to view them differently. As one 38-year-old female breast cancer survivor expressed, "I don't want [cancer] to be my rubberstamp." Others described disclosures

TABLE 1 | Topics from semi-structured interview guide & example questions.

Topic	Example questions
Changes to values and priorities due to cancer	How have your values, priorities or the things that are important changed since cancer?
	How have your expectations or what you hope for in your friendships and romantic relationships changed since cancer?
Social functioning	How have your social relationships changed since cancer?
	What kinds of emotions do you feel when you tell other people about your cancer or ask for something you need related to cancer?
	How has cancer impacted your ability to get close to another person?
Cancer communication	What kinds of emotions do you feel when you tell other people about cancer or something you need related to cancer?
	How do you make the decision to choose to share your cancer diagnosis with other people?
	What is it like when you tell people about your cancer, people who are close to you and people you've never met before?
	How do you talk about cancer with new people?
Self-conscious emotions	Do you ever feel ashamed or guilty about anything related to cancer? (If yes, describe)
	Do you ever feel embarrassed about anything related to cancer? (If yes, describe)
Mental Health & Resources	With reference to mental health and psychological support, what are some of the things that would be helpful to your or other young people going through cancer?
	How would you describe your mental health needs related to cancer survivorship?
	What do you think healthcare providers could be doing better with young survivors?
Thoughts about the future	Do you ever worry about cancer holding you back from the things that you want most in the future? (If yes, describe)
	Is there anything you assumed would be in your life in the future that you've had to let go of because of cancer? (If yes, describe)
Gratitude	How has cancer affected your gratitude, empathy, or compassion for yourself or other people?

leading peers to see them as pillars of strength or, alternatively, like they needed care or pity.

3.2.2 | Theme 2. Connection Through Mutual Hardship

Survivors described a newfound preference for connecting with people who have also experienced hardship. For some, this was specific to cancer (e.g., family member's diagnosis), while for others the desire for shared adversity was broader (e.g., personal trauma). As one survivor stated, 'I'm definitely more interested in building friendships with people who can walk through hard times...who have a story.' Some found it easier to connect with older adults, describing superior understanding and support due to personal experiences with tragedy. Reflecting the idea that age brings adversity, one 23-year-old liver cancer survivor described feeling like an 'oddball' among peers and looked forward to them aging, having their own difficult experiences, and relating to her better.

3.2.3 | Theme 3. Revised Outlooks on Friendship

Cancer contributed to redefining survivors' perspectives on friendships, leaving some actively pursuing new connections and others moving away from new relationships altogether.

3.2.3.1 | **Subtheme 1: Pursuit of New Friendships.** One 36-year-old female breast cancer survivor described how a lack of familial support during her cancer journey led her to see value in having a support system and in turn has been trying to foster friendships and create 'pseudo-family ties.' A 37-year-old female lymphoma survivor expressed how cancer made her feel valuable to people for the first time, prompting her to jump more quickly into friendships, something she struggled with before cancer.

Many spoke about missions to be surrounded by good and happy people and avoid mean people. One 40-year-old female

TABLE 2 | Final subset of study codes.

Code	Definition	
Empathy: empathy for others with cancer	(e.g., I get what others with cancer are going through; we're the only ones who get it)	
Empathy: sympathy/patience/understanding of others	(e.g., I am more patient/forgiving now since cancer)	
Experiences with cancer groups/peers	Participant describes experiences (positive and/or negative) interacting with others who have/have had cancer. This may include formal support groups, informal interactions/ relationships, etc.	
Gratitude: downward comparisons	(e.g., I have it so much better than my support group friend, she had a later-stage cancer)	
Gratitude: that cancer outcomes were not worse	(e.g., it could have been so much worse, I could have needed an amputation)	
Grief: deaths	Experiences related to death of friends/support group peers due to cancer	
Grief: losses	What I missed out on or had to let go of due to cancer (e.g., I never even had the chance to try to have kids).	
Psychological impact of cancer on family or relationships with significant others	Effect of cancer on relationships with family, friends, casual partners (e.g., hook-ups) or significant others (e.g., my parents/partner do/don't understand how I feel since cancer)	
Psychological impact of cancer: no impact/minimal impact	When/how cancer didn't change the way someone thinks/feels (e.g., I never think about cancer, cancer didn't affect my)	
Psychological impact of cancer: on identity or sense of self	"Who I am"/survivor identity (e.g., I'm trying to figure out who I am as a cancer survivor, I'm not that person anymore because of cancer). May include positive changes to body image	
Psychological impact of cancer: values	Effect of cancer in determining/altering values/priorities/ meaning in life (e.g., since cancer, I care less/more about money and less/more about health; since cancer I know what's important in life)	
Self-evaluative emotions, guilt: cancer imposter syndrome	Feel guilt that my cancer was less severe/more easily treated than others (e.g., sometimes in support group I don't feel like I have the right to say anything because I had the "good" cancer)	
Self-evaluative emotions, guilt: survivors guilt	Feel guilty that I survived cancer when others died (e.g., I don't know why I lived and she didn't)	
Self-evaluative emotions, guilt: towards loved ones/relationships	Feel guilty that others worry about/take care of me because of cancer (e.g., my mom lost her job, my daughter has to worry about me dying)	
Self-evaluative emotions, guilt: towards missed opportunities	Feel guilty that I missed out on life experiences/opportunities (e.g., they all got the college experience, I didn't finish my degree)	
Self-evaluative emotions, pride: coping response to cancer/resilience	Pride that participant survived and/or how they coped with treatment	
Self-evaluative emotions, pride: survivorship and advocacy	Pride in cancer-related volunteering or other activities	
Self-evaluative emotions, shame: body image/physical ability concerns	Cancer-related changes to body, considered negative/ undesirable	
Self-evaluative emotions, shame: in dating/relationships	Awareness/sense of inferiority as compared to peers or within relationships	
Social isolation: different values/priorities than close others, due to cancer	(e.g., they don't understand, because they haven't been through it)	
Social isolation: difficulty explaining or asking for help related to cancer	(e.g., I hate asking for help, I am an independent person)	
	(Continues)	

(Continues)

TABLE 2 | (Continued)

Code	Definition
Social isolation: protective buffering	Hold back from talking to protect others or make them more comfortable (e.g., I don't talk about my worry that cancer's coming back because it would upset my mom)
Social support	Examples of effective social support from others; participant describes feeling understood, accepted, supported by others and/or receiving practical tangible or informational support.

TABLE 3 | Sample demographics.

	N	%
Background (all that apply ^a)		
White	30	76.9
Hispanic, Latino, or Spanish Origin	4	10.3
Asian American	2	5.1
American Indian or Alaska native	1	2.6
Black or African American	1	2.6
Middle Eastern or North African	1	2.6

^aAdds up to > 100% since participants could select multiple options.

lymphoma survivor stated, 'I just want you to be good and if you're bad, you must not be around me.'

Another factor that influenced survivors' pursuit of new friendships was a lack of interest/ability to participate in activities that could help them relate to new peers. One 23-year-old liver cancer survivor described difficulty bonding with fellow college students who binge drink and stay up all night since these behaviors conflict with her prioritizing her health. A 28-year-old female liver cancer survivor described the impossibility of having casual friendships since she might cancel plans last minute if she is not feeling well.

3.2.3.2 | Subtheme 2: Avoidance of New Friendships.

In contrast to those who felt pulled to build new connections, there were a few who felt cancer pushed them away from new relationships. One survivor's cancer experience made it seem inevitable that she would die young, compelling her to invest her limited time and energy into existing friendships rather than new ones. A 36-year-old breast cancer survivor explained how disappointing experiences with friends during treatment led her to realize that she can only rely on herself.

3.3 | Friendships With Cancer Peers

We then explored AYA survivors' views on how cancer impacted the way they thought about forming friendships with others who also had cancer. Three themes emerged: shared cancer experience, wariness of negative exposures, and consideration of similarity in cancer factors.

3.3.1 | Theme 1. Shared Cancer Experience

Survivors actively pursued connections with others who had cancer, driven by their shared understanding of the experience.

One 31-year-old female lymphoma survivor reflected on her support group, "Every time I leave I'm like, 'I found my people'...I tell my family all the time as much as they try to help and try to get it, they don't...And everyone else in that room gets it." A 39-year-old female breast cancer survivor recounted a time her group's facilitator asked if others felt similarly to her, and how seeing everyone on Zoom raise their hand led her to think, 'you guys get it, like you're now my people.' One 26-year-old male testicular cancer survivor who typically keeps worries to himself found himself sharing thoughts with cancer peers he would never share with anybody else.

Survivors also appreciated cancer peers' ability to provide information, like guidance on whether a symptom is 'normal.' A 36-year-old female breast cancer survivor described her experience sharing recurrence worries with cancer peers: "You can kind of be like, 'hey, I feel this thing in my armpit [laughs], I'm freaking out' and they could be like, 'oh, well, did you, did you feel it laying down...has it been there two weeks...well, that sounds like your anxiety speaking'...or 'you might wanna go have your doctor feel that'."

3.3.2 | Theme 2. Wariness of Negative Exposures

While perceiving many benefits of cancer peer relationships, survivors also expressed hesitation about being exposed to others' fears and potential relapses. Some were cautious about participating in support groups and meeting "worst case scenario people" or hearing about recurrences and deaths. One survivor recounted being told about a girl in her support group who died after a relapse, which led her to think, "Sometimes ignorance is bliss." Another survivor who joined a support group immediately after diagnosis left sessions thinking "I'm just trying to survive this. I don't even want to think about what can possibly happen like in 2 years." A 19-year-old male thyroid cancer survivor wished he had received more guidance on befriending sick people, noting he was "making friends with a ticking time bomb. I'd meet people and they'd die."

Many who connected with cancer peers via social media described moments of needing to disconnect. One survivor muted a Facebook page due to frequent relapse discussions that led her to think "Well, all these people relapsed so how is relapsing not this typical?"." This exposure reinforced thoughts that her cancer would return and she would not adapt as well this time. Another survivor expressed difficulty watching cancer peers she follows on Instagram pass away, noting, "for my mental health, I don't need to follow as many."

In terms of one-to-one cancer peer connections, survivors expressed fears that negative events happening to friends would happen to them as well. One 39-year-old female breast cancer survivor spoke about a cancer peer who broke her hip and doctors "had no idea how...all they could think of is doing weighted lunges. So now anytime I do weighted lunges, I'm like, 'Oh no. Am I going to break my hip like [friend] did?'."

3.3.3 | Theme 3. Consideration of Similarity in Cancer Factors

Individuals considered certain commonalities like age, cancer type, and treatment features when seeking out connections with cancer peers. Many spoke about wanting support groups tailored to people in similar situations and life stages. Some survivors with children expressed an inability to identify with others' infertility and preferred parent-only groups. Those without children felt similarly isolated, with one individual noting that she experienced "jealousy toward people who had kids."

One 39-year-old female breast cancer survivor noted that age may not be the best proxy for life stage, stating, 'You can't assume that...two women in their thirties who have breast cancer...are going through the same thing...I am in my thirties but I relate to girls in their twenties because they are also single or they are also forced to live with mom...like the one friend that I had who's 43 can't join any of my young adult groups...but she's a single woman who like, her lived experience is...similar to mine, you know? So...it seems arbitrary.'

One survivor spoke about the importance of being grouped by cancer type, 'I've only seen like breast cancer survivors and I'm just like...I'm not in your group. You know because they are very funny with bringing other—like yeah, you had cancer, but you didn't have breast cancer. So no pink for you.' Another survivor who experienced a relapse described feeling unsupported by a cancer peer who completed treatment suggesting the potential importance of connecting peers at similar treatment points. Survivors frequently compared their cancers to others' and felt guilty when perceiving their stage or treatment regimen as less intense. One survivor noted 'I have a survivor's guilt over the fact that I didn't have chemo...and my friend did have to have chemo and a year of Herceptin.'

4 | Discussion

The current study expands our understanding of AYA survivors' social reintegration by examining how cancer shaped their thoughts about forming new friendships. Survivors' accounts illuminate the complexity of forming new friendships, where the fear of being misunderstood or exclusively perceived through the lens of their survivor identity contends with a desire for honest, close relationships. They also stressed the value of connecting with others who faced hardship, highlighting that shared struggles can transcend age or cancer experience. Survivors' outlooks toward forming new friendships were varied. Some reported a newfound appreciation for the benefits of a strong support system, while others had trouble connecting with

peers whose lifestyles did not align with theirs. A few expressed more cynical views and were disinterested in forming new relationships.

Cancer peers were valued for their unique capacity to offer empathy, validation, and insight that frequently surpassed non-cancer peers, creating a safe space for survivors to share emotions they hid from other friends and family and ease anxieties about symptoms. While valuing the potential for support, many expressed caution in seeking out cancer peer connections due to fears of exposure to relapses and deaths. Navigating these friendships became a delicate balance between seeking understanding and support and shielding oneself from triggering reminders of potential future setbacks. Survivors' descriptions of undesirable interactions with peers whose individual factors were dissimilar to their own (e.g., cancer type, parental status, treatment severity) suggest a need to consider more than just the commonality of an AYA diagnosis when connecting cancer peers.

Our study explored AYA survivors' attitudes toward forming new friendships, an area previously unexplored in the literature, which shifted focus from the common emphasis on desired versus undesired peer support and barriers to strong relationships. Additionally, the incorporation of three dominant theoretical frameworks deepens our understanding of the factors influencing AYA survivors' ability to socially reintegrate after cancer. The stress buffering hypothesis provides fundamental rationale for why pursuing peer relationships is especially critical for AYAs with cancer. OMT provides valuable insights into of the type of support survivors need from non-cancer and cancer peers. Finally, similarity-attraction theory supports our knowledge of the specific qualities AYA survivors seek in potential new friendships, including a preference for shared experiences and understanding.

Aligned with the stress buffering hypothesis, survivors described experiences with cancer peers as overwhelmingly supportive, finding comfort in their experiential knowledge and capacity for empathy [34]. Survivors' descriptions of their motivation for seeking out new friendships with cancer and non-cancer peers aligns with OMT and similarity-attraction theory, with strong weight placed on finding friends who have experienced adversity and can provide better emotional support [35].

AYA survivors' experiences navigating new relationships with cancer and non-cancer peers can be characterized as a nuanced, interrelated web of considerations. Survivors' concerns about disclosing cancer status to non-cancer peers likely influenced their preference for connecting with those who have experienced adversity themselves and would thus be more likely to respond to disclosures skillfully and empathetically. This desire to speak with someone who can empathize is likely also a key driver of why participants described seeking out relationships with cancer peers, which is consistent with existing research stating connection with others who have experienced cancer is a common desire [5, 27]. Many found solace in participating in support groups and online communities, where sharing experiences and knowledge eased anxieties and allowed them to discuss topics that felt "taboo" among family and non-cancer peers.

Seeking new relationships also involved a significant degree of caution. Some survivors experienced disappointment with existing friends and family during treatment, which led them to rely solely on themselves. Additionally, many survivors were wary of connecting with cancer peers due to potential negative exposures to their relapses, which aligns with past findings on negative aspects of support group involvement [27, 32]. Novel to the literature, we found that survivors made considerations about which individual factors (e.g., similar age, life stage, cancer type, and treatment) would make a new connection valuable. These likely stem from the knowledge that a new relationship can be difficult to forge and may feel futile if it does not provide the understanding and support desired, especially if it risks bringing additional challenges. Understanding these preferences is important when recommending appropriate support strategies for individual survivors.

4.1 | Limitations

Findings should be considered with the following limitations. The data analyzed in this study originated from a project that did not specifically focus on social relationships. However, this could also be viewed as a strength since information gathered reflects spontaneous and likely authentic narratives from participants. While strengthened by its relatively large sample size for qualitative work (N = 35), our findings are limited by a lack of racial and ethnic diversity, not dissimilar from other studies of AYA survivorship. The utilization of snowball sampling from a peer support group during recruitment potentially yielded an overrepresentation of survivors who actively sought out connections with cancer peers. However, we know that the desire to connect with fellow cancer patients/survivors is widespread among this population [32], thus participants in our sample may not differ significantly in terms of desire for these connections; they might simply have more experience establishing such connections.

4.2 | Clinical Implications

Adolescence and young adulthood are critical times for establishing social relationships that will support normative development and long-term social functioning. Our findings underscore the importance of addressing specific barriers (e.g., discomfort in disclosing cancer status to non-cancer peers, difficulty relating to peers with differing parental statuses) to strong social relationships among AYA cancer survivors. Understanding how cancer impacts AYA's views on forming new friendships can guide the development of clinical interventions that bolster peer support, improving short-term well-being and ensuring sustained social functioning.

Future research should investigate interventions and support strategies that target the evolving social support needs of AYA cancer patients and survivors, like determining how to best address survivors' fears of negative exposures when connecting with cancer peers (e.g., conversations with providers, support group settings, individual psychotherapy). Additionally, research that explores the optimal degree of cancer peer similarity (e.g.,

same cancer type, treatment, or demographic) can inform future efforts by hospitals and cancer organizations to connect cancer peers in a fashion that facilitates maximal emotional and informational support.

5 | Conclusions

This study highlights how AYA survivors navigate new friend-ships following their cancer diagnosis. Despite facing challenges related to disclosing cancer status and exposure to others' fears and relapses, survivors overwhelmingly sought out and found support in friendships that facilitated honest emotional expression and provided deep understanding. Recognizing the existing barriers (e.g., discomfort disclosing, fear of negative exposures) and facilitators to cultivating strong peer relationships will enable clinicians and researchers to better support AYA survivors' social well-being. Further research, including more targeted interventions, is crucial to ensure long-term social integration among AYA cancer survivors.

Author Contributions

Carly D. Miron: conceptualization, methodology, formal analysis, writing-original draft, writing-review & editing. Zeba N. Ahmad: conceptualization, methodology, formal analysis, investigation, data curation, writing review & editing, funding acquisition. Jennifer S. Ford: conceptualization, methodology, formal analysis, investigation, resources, writing-review & editing, supervision.

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Conflicts of Interest

The authors declare no conflicts of interest.

Data Availability Statement

The data that support the findings of this study are available on request from the corresponding author. The data are not publicly available due to privacy or ethical restrictions.

References

- 1. National Cancer Institute, "Adolescents and Young Adults (AYAs) With Cancer," (2024, June 6), https://www.cancer.gov/types/aya.
- 2. American Cancer Society, Signs & Symptoms of Teen Cancer (2024, May 21).
- 3. National Cancer Institute, "Cancer Among Adolescents and Young Adults (AYAs)—Cancer Stat Facts," Surveillance, Epidemiology, and End Results Program (2022), https://seer.cancer.gov/statfacts/html/aya.html.
- 4. J. A. Evered, "Friendship in Adolescents and Young Adults With Experience of Cancer: A Dimensional Analysis," *Cancer Nursing* 43, no. 2 (2020): E61–E70: psyh, https://doi.org/10.1097/NCC.0000000000000686.
- 5. E. L. Warner, E. E. Kent, K. M. Trevino, H. M. Parsons, B. J. Zebrack, and A. C. Kirchhoff, "Social Well-Being Among Adolescents and Young Adults With Cancer: A Systematic Review," *Cancer* 122, no. 7 (2016): 1029–1037, https://doi.org/10.1002/cncr.29866.

- 6. W. W. Hartup, "The Company They Keep: Friendships and Their Developmental Significance," *Child Development* 67, no. 1 (1996): 1–13, https://doi.org/10.1111/j.1467-8624.1996.tb01714.x.
- 7. C. D. Miron, E. Satlof-Bedrick, and R. Waller, "Longitudinal Association Between Callous-Unemotional Traits and Friendship Quality Among Adjudicated Adolescents," *Journal of Adolescence* 81, no. 1 (2020): 19–26, https://doi.org/10.1016/j.adolescence.2020.03.010.
- 8. B. Fehr, Friendship Processes, Vol. 12 (Thousand Oaks, CA: Sage, 1996).
- 9. B. J. Zebrack, M. A. Chesler, and A. Penn, "Psychosocial Support," in *Cancer in Adolescents and Young Adults*, 2007 (Berlin, Germany: Springer-Verlag), 375–385.
- 10. R. Evans, P. Mallet, C. Bazillier, and P. Amiel, "Friendship and Cancer," *Reviews in Health Care* 6, no. 2 (2015): 53–65: Article 2, https://doi.org/10.7175/rhc.v6i2.1171.
- 11. K. Neylon, C. Condren, S. Guerin, and K. Looney, "What Are the Psychosocial Needs of Adolescents and Young Adults With Cancer? A Systematic Review of the Literature," *Journal of Adolescent and Young Adult Oncology* 12, no. 6 (2023): 799–820, https://doi.org/10.1089/jayao. 2022.0130.
- 12. M. J. Lang, J. Giese-Davis, S. B. Patton, and D. J. T. Campbell, "Does Age Matter? Comparing Post-Treatment Psychosocial Outcomes in Young Adult and Older Adult Cancer Survivors With Their Cancer-Free Peers," *Psycho-Oncology* 27, no. 5 (2018): 1404–1411, https://doi.org/10.1002/pon.4490.
- 13. G. P. Quinn, V. Gonçalves, I. Sehovic, M. L. Bowman, and D. R. Reed, "Quality of Life in Adolescent and Young Adult Cancer Patients: A Systematic Review of the Literature," *Patient Related Outcome Measures* 6 (2015): 19–51, https://doi.org/10.2147/PROM.S51658.
- 14. M. Barnett, G. McDonnell, A. DeRosa, et al., "Psychosocial Outcomes and Interventions Among Cancer Survivors Diagnosed During Adolescence and Young Adulthood (AYA): A Systematic Review," *Journal of Cancer Survivorship* 10, no. 5 (2016): 814–831, https://doi.org/10.1007/s11764-016-0527-6.
- 15. S. R. Greup, S. E. J. Kaal, R. Jansen, et al., "Post-Traumatic Growth and Resilience in Adolescent and Young Adult Cancer Patients: An Overview," *Journal of Adolescent and Young Adult Oncology* 7, no. 1 (2018): 1–14, https://doi.org/10.1089/jayao.2017.0040.
- 16. R. Tillery, R. Cohen, K. S. Berlin, A. Long, and S. Phipps, "Youth's Adjustment to Cancer: Examination of Patterns of Adjustment and the Role of Peer Relations," *Journal of Pediatric Psychology* 42, no. 10 (2017): 1123–1132, https://doi.org/10.1093/jpepsy/jsx067.
- 17. M. V. Ingersgaard, M. K. Fridh, T. Thorsteinsson, L. Adamsen, K. Schmiegelow, and H. Baekgaard Larsen, "A Qualitative Study of Adolescent Cancer Survivors Perspectives on Social Support From Healthy Peers—A RESPECT Study," *Journal of Advanced Nursing* 77, no. 4 (2021): 1911–1920, https://doi.org/10.1111/jan.14732.
- 18. K. M. Fladeboe, A. J. Walker, A. R. Rosenberg, and L. F. Katz, "Relationships Between Adolescents With Cancer and Healthy Peers: A Qualitative Study," *Journal of Adolescent and Young Adult Oncology* 10, no. 5 (2021): 555–561, https://doi.org/10.1089/jayao.2020.0133.
- 19. M. Matsui, K. Taku, R. Tsutsumi, et al., "The Role of Peer Support in Psychosocial Outcomes Among Adolescent and Young Adult (AYA) Cancer Survivors," *Journal of Clinical Oncology* 38, no. 15_suppl (2020): e22528, https://doi.org/10.1200/JCO.2020.38.15_suppl.e22528.
- 20. C. L. Decker, "Social Support and Adolescent Cancer Survivors: A Review of the Literature," *Psycho-Oncology* 16, no. 1 (2007): 1–11, https://doi.org/10.1002/pon.1073.
- 21. B. J. Zebrack, "Cancer Survivor Identity and Quality of Life," *Cancer Practice* 8, no. 5 (2000): 238–242, https://doi.org/10.1046/j.1523-5394. 2000.85004.x.
- 22. S. H. M. Janssen, C. Vlooswijk, E. Manten-Horst, et al., "Learning From Long-Term Adolescent and Young Adult (AYA) Cancer Survivors

- Regarding Their Age-Specific Care Needs to Improve Current AYA Care Programs," *Cancer Medicine* 12, no. 12 (2023): 13712–13731, https://doi.org/10.1002/cam4.6001.
- 23. M. M. H. Janin, S. J. Ellis, C. E. Wakefield, and J. E. Fardell, "Talking About Cancer Among Adolescent and Young Adult Cancer Patients and Survivors: A Systematic Review," *Journal of Adolescent and Young Adult Oncology* 7, no. 5 (2018): 515–524, https://doi.org/10.1089/jayao.2017.0131.
- 24. N. Cameron, K. Ross, D. Baken, and D. Bimler, "The Psychosocial Interactions of Adolescent and Young Adult Cancer Survivors and the Possible Relationship With Their Development," *Cancer Nursing* 44, no. 1 (2021): E23–E33, https://doi.org/10.1097/NCC.00000000000000732.
- 25. T. Kaluarachchi, F. McDonald, P. Patterson, and T. R. O. Newton-John, "Being a Teenager and Cancer Patient: What Do Adolescents and Young Adults With Cancer Find Valuable and Challenging With Their Friends and Cancer Peers?," *Journal of Psychosocial Oncology* 38, no. 2 (2020): 195–209, https://doi.org/10.1080/07347332.2019.1672847.
- 26. A. Smith, M. Fogarasi, M. B. Lustberg, and L. Nekhlyudov, "Perspectives of Adolescent and Young Adult Cancer Survivors: Review of Community-Based Discussion Boards," *Journal of Cancer Survivorship* 16, no. 5 (2022): 1079–1089, https://doi.org/10.1007/s11764-021-01098-4.
- 27. C. L. Treadgold and A. Kuperberg, "Been There, Done That, Wrote the Blog: The Choices and Challenges of Supporting Adolescents and Young Adults With Cancer," *Journal of Clinical Oncology* 28, no. 32 (2010): 4842–4849, https://doi.org/10.1200/jco.2009.23.0516.
- 28. L. Sender and K. B. Zabokrtsky, "Adolescent and Young Adult Patients With Cancer: A Milieu of Unique Features," *Nature Reviews Clinical Oncology* 12, no. 8 (2015): 465–480, https://doi.org/10.1038/nrclinonc.2015.92.
- 29. A. Zhang, K. Wang, B. Zebrack, C. Y. Tan, E. Walling, and R. Chugh, "Psychosocial, Behavioral, and Supportive Interventions for Pediatric, Adolescent, and Young Adult Cancer Survivors: A Systematic Review and Meta-Analysis," *Critical Reviews in Oncology* 160 (2021): 103291, https://doi.org/10.1016/j.critrevonc.2021.103291.
- 30. A. J. Lazard, M. K. R. Collins, A. Hedrick, et al., "Initiation and Changes in Use of Social Media for Peer Support Among Young Adult Cancer Patients and Survivors," *Psycho-Oncology* 30, no. 11 (2021): 1859–1865, https://doi.org/10.1002/pon.5758.
- 31. A. Penn, A. Kuperberg, and B. J. Zebrack, "Psychosocial Issues in Adolescent and Young Adult Patients and Survivors," in *Cancer in Adolescents and Young Adults*, eds. A. Bleyer, R. Barr, L. Ries, J. Whelan, and A. Ferrari (Berlin: Springer International Publishing, 2017), 583–602, https://doi.org/10.1007/978-3-319-33679-4_23.
- 32. M. E. Hotchkiss, Z. N. Ahmad, and J. S. Ford, "Cancer-Peer Connection in the Context of Adolescent and Young Adult Cancer: A Qualitative Exploration," *Journal of Adolescent and Young Adult Oncology* 12, no. 1 (2023): 83–92, https://doi.org/10.1089/jayao.2021. 0170.
- 33. D. E. Byrne, *The Attraction Paradigm*, Vol. 462 (New York: Academic Press, 1971).
- 34. S. Cohen and T. A. Wills, "Stress, Social Support, and the Buffering Hypothesis," *Psychological Bulletin* 98, no. 2 (1985): 310–357, https://doi.org/10.1037/0033-2909.98.2.310.
- 35. C. E. Cutrona and D. W. Russell, "Type of Social Support and Specific Stress: Toward a Theory of Optimal Matching," in *Social Support: An Interactional View* (New York: John Wiley & Sons, 1990), 319–366.
- 36. T. V. Merluzzi, E. J. Philip, M. Yang, and C. A. Heitzmann, "Matching of Received Social Support With Need for Support in Adjusting to Cancer and Cancer Survivorship," *Psycho-Oncology* 25, no. 6 (2016): 684–690, https://doi.org/10.1002/pon.3896.

- 37. Z. N. Ahmad, Investigating Young Adult Cancer Survivors' Perspectives on the Future and Interpersonal Relationships [PhD Thesis] (New York: City University of New York, 2022).
- 38. SocioCultural Research Consultants, LLC, Dedoose Version 9.0.17, Web Application for Managing, Analyzing, and Presenting Qualitative and Mixed Method Research Data (Los Angeles, CA, USA: Sociocultural Research Consultants, 2021): [Internet], www.dedoose.com.
- 39. V. Braun and V. Clarke, "Using Thematic Analysis in Psychology," *Qualitative Research in Psychology* 3, no. 2 (2006): 77–101, https://doi.org/10.1191/1478088706qp063oa.
- 40. B. N. Uchino, "Understanding the Links Between Social Support and Physical Health: A Life-Span Perspective With Emphasis on the Separability of Perceived and Received Support," *Perspectives on Psychological Science* 4, no. 3 (2009): 236–255, https://doi.org/10.1111/j. 1745-6924.2009.01122.x.