



# The Adolescent Allies Program

A group-based program to improve anxiety, depression, and quality of life of adolescent cancer survivors through psychoeducation and behavior change.

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## Mission Statement, Goals, & Objectives

### Mission Statement

Adolescent Allies works to improve the outcomes associated with anxiety and depression among adolescent cancer survivors that received treatment from or are within proximity of St. Jude Children's Research Hospital in Memphis, TN. To achieve this mission, this program will utilize group-support, wellness practices, and education to reduce anxiety and depression among adolescent cancer survivors. Through weekly meetings and tasks, the goal is to improve mental health outcomes through enjoyable practices that will be continued after the program. By serving as a resource for adolescent cancer survivors, this program envisions a better served adolescent cancer survivor population, therefore improving quality of life, productivity, and general health of adolescent cancer survivors.

### Goals & Objectives

**Goal 1:** Recruit a provider that serves pediatric or adolescent cancer populations.

**Objective 1.1:** Enlist 1 psychological pediatric professional from the southeastern U.S.

**Objective 1.2:** Include this professionals at meetings on a biweekly schedule.

**Objective 1.3:** Require weekly online calls to discuss program performance and open discussion.

**Goal 2:** Organize a receptive format for education and information dissemination to target specific outcomes of which our population hopes to achieve.

**Objective 2.1:** Gain insight (regarding pace, interest, and opinions) from the majority of participants at the intervention's halfway mark, using an anonymous feedback forum.

**Objective 2.2:** By the last program session, at least 50% of participants will offer to lead discussion of how they achieved their desired outcome.

**Goal 3:** Reduce feelings of anxiety and depression through group-support and tailored wellness practices

**Objective 3.1:** Include information on how varying practices have shown to be effective in reducing anxiety and depression through sessions.

**Objective 3.2:** Harbor group discussion of participant's past experience on practices that improve general wellness or quality of life

**Objective 3.3:** Allow participants to choose their preferred wellness method and utilize it for a day of class (walking, meditation, yoga, creative writing, etc.).

**Objective 3.4:** By the end of the program, 90% of participants will have preferred wellness method and understand that specific methods benefit.

**Goal 4:** Promote connection with peers through social interaction to foster an ongoing support system.

**Objective 4.1:** Each weekly session will hold a randomized, group-based task at the beginning of the session.

**Objective 4.2:** Plan a behavioral/skill day with all participants to harbor normalcy and commonality in the evolving relationships and behavior change.

**Goal 5:** Strengthen or improve overall quality of life following the intervention through sustainable emotional regulation practices.

**Objective 5.1:** Participants will understand the ongoing benefit of journaling, situational reframing, and varying forms of physical and creative self-care.

**Objective 5.2:** At 8 weeks, participants will report which life improvement methods they believe are useful to them.

**Objective 5.3:** By the end of the program, 90% of participants will create a personalized weekly schedule that includes physical and/or mental wellness practices learned throughout the program.

## Needs Assessment

### Understanding Anxiety and Depression

The primary health issue is mental health, specifically anxiety and depression. Depression is the manifestation of a long-term sad mood, becoming apparent as it interferes with everyday functioning. Depression appears as self-isolation, personality changes, changes in sleep patterns, limited concentration and memory, and self-loathing. Depression can manifest through family predisposition, traumatic events, major life change, or following intense medical issues (CDC, 2023). Anxiety is characterized by apprehension and tension and is the physical manifestation of psychological danger anticipation (APA, n.d.). Anxiety is shown largely through physical symptoms, such as increased heart rate, sweating, trouble sleeping, and digestive issues. Similar to depression, anxious tendencies can be inherited from family. Additionally, any form of traumatic event can lead to anxiety (Mayo Clinic, 2025). Both depression and anxiety are measured through their own respective interviews, questionnaires, and scales.

The consequences of depression and anxiety can be both intrapersonal and interpersonal. In the adolescent population, depression makes substantial impacts socially and educationally. Adolescents become isolated, resulting in substance abuse and obesity. Depression accounts for half of the reported adolescent suicide causes, highlighting its mental power (Thapar et al., 2012). Similarly, anxiety in adolescents contributes to withdrawal from school and normal social functions, substance abuse, and further depressive symptoms (Miller, 2025). For the program, the target population is adolescents aged, 10-19, suffering from depression and anxiety following their pediatric cancer remission. Looking at more general populations that have survived childhood cancer, 2.3% to 40.8% have depression and 1.2% to 27.6% have anxiety (Bhatia et al., 2023). In children, adolescent, and young adult patients in cancer remission, they are at an increased lifetime risk of severe depression and anxiety compared to their siblings and the general population (Lee et al., 2023).

### Existing Programs, Interventions, and Studies

Among the target population of adolescents aged 10-19, there is a relative amount of research regarding the prevalence of mental health concerns among them. However, there are a few targeted interventions to address the psychological disparity. Generally, most research targets adult cancer survivors. Most adolescent research is condensed with young adult survivors and is largely offered online. Using this information, it's apparent that adolescents need an age-targeted intervention. With 10 to 19 years old being a vulnerable age, the intervention must be tailored specifically to their psychological needs.

In the Netherlands, a study was designed to understand how psychotherapy can improve life meaning in adult cancer survivors compared to other forms of support. The study found that adults in the meaning-centered group therapy had the most lasting effect, improving goal setting and life value immediately post-intervention and at each follow-up (van der Spek et al., 2017). In relation to the present problem, this study highlights the importance of a group setting with a futuristic focus, contributing to improved life meaning. However, it is unclear how this focus would perform in an adolescent setting and if the positive outcomes would persist in our intervention's population. In another adult-centered study, EMPOWER-SMS was used to target the mental wellbeing and quality of life among breast cancer survivors in Australia. Though most the data is qualitative, 67% of participants noted the messages were motivating. Through post-

intervention open response, participants indicated potential quality of life and mental improvement (Singleton et al., 2022). The study's tactics are futuristic and creates a unique form of encouragement that could be suitable for screen focused adolescents, though this is uncertain.

A study with participants from Emory University and the University of Kentucky aimed to evaluate the impact of positive psychology integration in enhancing mental health, personal functioning, and quality of life among young adult cancer survivors. The specific intervention was AWAKE (Achieving Wellness After Kancer in Early life), a scalable, eight-week, digital program. AWAKE consisted of educational videos, mood/activity tracking, and telephone-based coaching (Berg et al., 2020). The study had 56 participants with an average age of 32.55 years old. The trial was a two-arm randomized control, examining feasibility, acceptability, and efficacy of AWAKE when compared to the control group. The study's outcomes showed that there was little significant difference in impact of AWAKE and the control group. Still, AWAKE participants expressed contentment in the program's relevancy, coaching style, and generally gave positive feedback. AWAKE participants improved in overall hope, general health, and social well-being. In the context of adolescent cancer survivors, the young adult focus of this study can distantly imply the impact across a similar age population.

To understand the psychosocial impact of cancer on newly diagnosed adolescent and young adult cancer patients, a study used a range of existing national surveillance data (Bellizzi et al., 2012). This study used 523 newly diagnosed adolescent and young adults, with diagnosis having to occur at the age of 15-39 and being within 14 months. This study included patients from Detroit, Seattle, Los Angeles County, San Francisco, Greater California, Iowa, and Louisiana. The survey data included sociodemographics, barriers to health care, quality of health care, treatment, symptoms, insurance status, psychosocial impact of cancer, and quality of life. The study's outcomes showed the most heavily impacted aspects of life were finances, body image, feelings of control, career plans, relationships, and family planning. Knowing this information is fundamental in the creation of a beneficial intervention for adolescents, though we don't know that these are the exact opinions of adolescent cancer survivors.

In an online psychological therapy intervention for adolescents and young adult cancer survivors, it was found that online discourse is feasible and acceptable (Sansom-Daly et al., 2019). Out of the sample, engagement was 74%, with feedback reports of self-reflection and development of coping skills being positive. Based on the intervention, a supporting study showed the impact of the cognitive-behavioral tailored online intervention, Recapture Life. The study included forty adolescents and young adults who survived cancer. As part of the study's secondary outcomes, Recapture Life participants reported higher rates of depression and anxiety compared to the peer-support group. At 12 weeks, more Recapture Life participants utilized coping strategies compared to the peer-support group (Sansom-Daly et al., 2021). This supporting study indicates that the online component of therapy may not be sufficient in reducing depression and anxiety. Still, more apparent causation is necessary to understand the best tactic to reduce mental illness among our target population.

To further understand developmentally distinct adolescent and young adult cancer survivors, a cross-sectional study was aimed to increase the understanding of recurrence fears and mental health in this population (Horwood et al., 2024). The study population included 90 participants aged between 16 to 30 years, with the mean age being 22.4. Participants were mainly recruited through social media, and the study survey was administered online. The study focused specifically on illness perceptions, fear of cancer recurrence, and mental health outcomes. The findings of the study indicated that negative illness perceptions were associated with more severe

anxiety, depression, and fear of recurrence. Illness perceptions regarding timeline, personal control, and emotional representation appeared to predict the relationship between fear of recurrence and anxiety. Furthermore, elevated fear of recurrence was associated with worse overall mental health. For present application, this study held a relatively young mean age, indicating that its findings could be relevant in young populations. The findings are useful in intervention design, specifically in addressing anxiety. Gaps in this research, such as minimal generalizability due to population size, could limit the relevancy of these findings in the current target population.

In another trial tailored to adolescent and young adult cancer survivors, the CaRE-AYA program was assessed for feasibility, acceptability, and safety. CaRE-AYA is an eight-week, multidimensional program targeting impairments, activity limitations, and participation restrictions (Corke et al., 2025). Within the program, there is individualized exercise regimens and weekly group exercise/self-management education sessions. The study population included 25 participants, with the mean age being 32.8 years. Aside from assessing feasibility, acceptability, and safety, the study also looked at physical function, mental health, and social function. The trial's outcomes showed high retention, increased knowledge and skills, participant perception, and participant's perceived barriers. This study includes adolescents, making its findings extremely relevant in proceeding in an adolescent-based intervention. From this, we can decipher how the inclusion of physical activity would improve patient's participation and enjoyment in a future program.

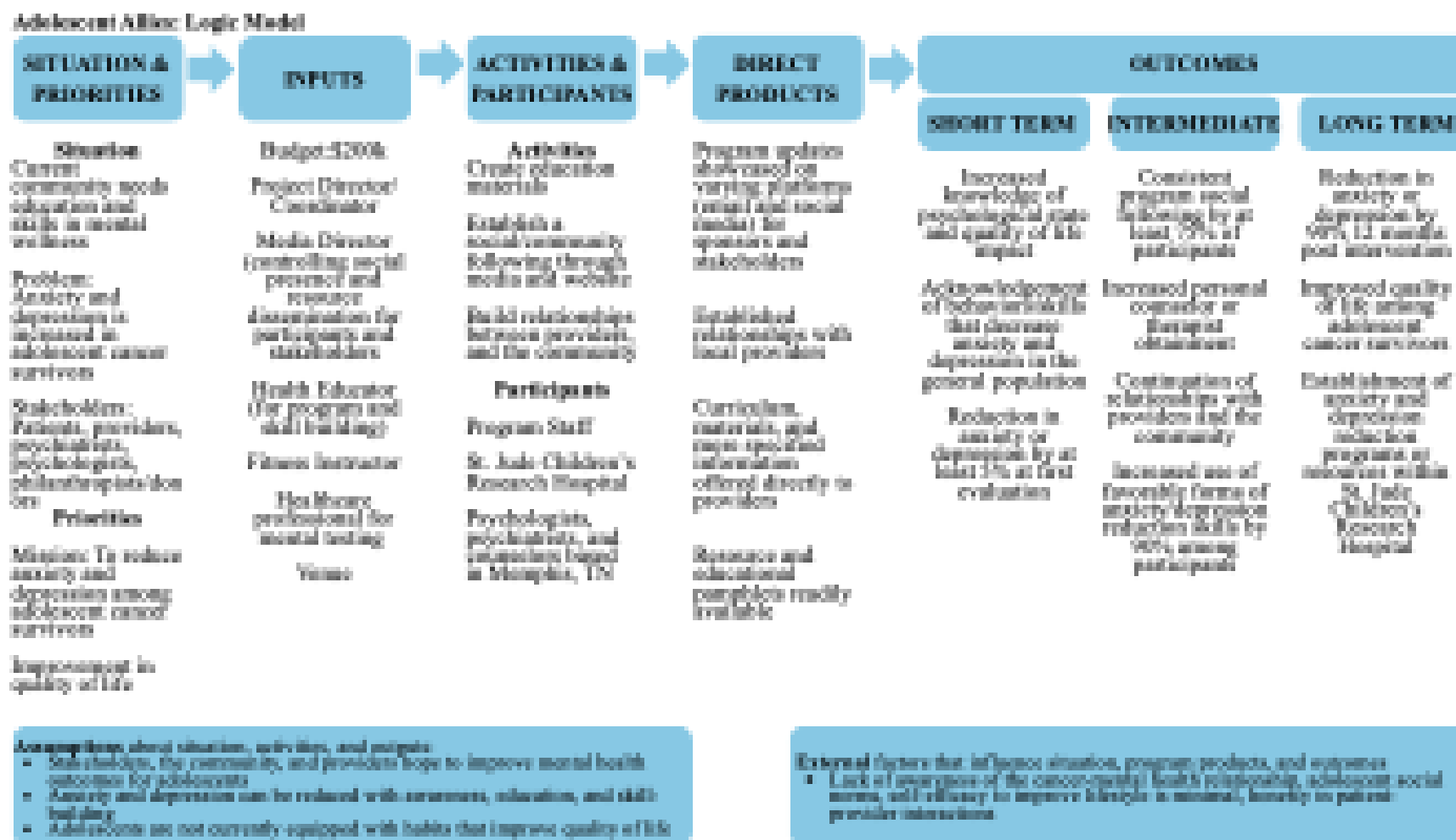
A review closely tailored to the present target population (aged 13-19) sought to show the impact of physical interventions in Canadian adolescent cancer survivors (Wurz & Brunet, 2016). The study found that with physical activity, quality of life decreased throughout the intervention with a slight increase post-intervention, making it overall non-significant. In relation to the present health issue, this serves as evidence to how adolescents react to a physical-based intervention. Additionally, this research only focused on quality of life, not specific measures such as depression or anxiety. This exemplifies a common gap, which little attention is given to specific mental health conditions. In another adolescent cancer survivor focused study, the aim was to address the social reintegration process (Savaş et al., 2025). The study gathered data through in-person interviews with 11 participants in Türkiye, aged between 10-18 years old, all completing treatment at least six months prior. Each interview asked four base questions, but additional questions and question sequence were based on the flow of each interview. The study showed that the main response themes were the importance of family/social support, maintenance of daily routines, passion and outlook exploration, challenges to social reintegration, body image discomfort, social relationship reconstruction, exposure to stigma/bullying, and forced break from school. In relation to the current target population and group-based design intention, these findings increase understanding of social struggles among adolescents following cancer remission.

Most research and literature remain tailored to adult cancer survivors. Adolescent populations are often condensed and studied alongside young adult cancer survivors. This makes determining an effective approach specifically for adolescent cancer survivors difficult, as research gives a convoluted view of adolescent populations. Still, young adult and adolescent-based research offer valuable ideas and understanding to implement in the current approach. Going forward, there must be more targeted interventions and associated research regarding the mental wellbeing of adolescent cancer survivors. As of now, it's only understood that physical activity could be effective and there are common themes of struggle within our target population.

Without adolescent targeted interventions, the quality of life and future of adolescent cancer survivors is at risk. This population is extremely vulnerable and deserves a tailored approach.



Figure 1. Logic Model



## Program Theory

The Adolescent Allies program utilizes several constructs of the Cognitive-Behavioral Theory (CBT) that establishes the relationship between behaviors, thoughts, and feelings. The CBT was established in the 1960's, as Aaron Beck noted that patients with pessimistic thoughts and negative behaviors exhibited poor mental standing (Chand et al., 2023). The design of the current program aims to make adolescent cancer survivors aware of their behaviors, thoughts, and feelings in relation to anxiety and depression. Additionally, the program promotes positive behavior change to therefore improve thoughts and feelings.

For the Adolescent Allies program, the CBT model aligns with the targeted health issue of anxiety and depression and hopeful outcome of quality-of-life improvement. CBT is actively considered a form of psychological treatment, demonstrated to be effective in the reduction of both depression and anxiety disorders. A plethora of research supports CBT's improvement in quality of life, which is what the program intends to do (American Psychological Association, 2017). The theory develops the idea that behavior, thoughts, and beliefs have a direct correlation between one another. It follows a standard sequence starting with event occurrence, followed by cognitive interpretation of the event which evokes an emotional and behavioral response based on one's core beliefs. The CBT remains focused on the present problem. Though it is not based in causation, it still acknowledges relevancy of past, life-altering events (Chand et al., 2023). In relation to our program focused on adolescent cancer survivors, anxiety and depression can be multi-causative. Though it is presumable that the root cause is in regard to treatment or survivorship, it could be from any factor associated with participants past experiences. Rather than focusing on the cause through the intervention, the program aims to educate adolescent cancer survivors in understanding anxiety and depression and to build skills that reduce anxiety and depression, improving quality of life.

As CBT exhibits the relationship between behavior, thoughts, and feelings in a cyclical and directly proportional manner, it allows program personnel to assess one aspect of the theory to cause change in the others. By addressing and changing behavior positively, thoughts and feelings will change accordingly, and this stream will ultimately result in quality-of-life improvement for participants. Aligning the CBT model with the Adolescent Allies program, we can analyze potential current negative streams of thought, feelings, and behavior that result in increased anxiety and depression. Potential behaviors that reduce QOL for adolescent cancer survivors are social withdrawal, poor coping skills, disturbed sleep patterns, self-loathing, and inability to work (Warner et al., 2016). These behaviors then contribute to thoughts surrounding increased social abnormalcy, fear of recurrence, emotional or physical weakness, and awareness of permanent variation among peers. Due to these thoughts, feelings of fear, anxiety, lack of self-worth, and hopelessness are apparent (George et al., 2025). Using the traditional CBT model, these negative feelings further contribute to the negative behaviors previously mentioned.

Another aspect of CBT to be addressed in the intervention is core beliefs. Under the theory, core beliefs account for one's fundamental ideas about themselves and the surrounding world. These beliefs shape perception and interpretation of life events and become deeply embedded in automatic thought (Chand et al., 2023). The Adolescent Allies program aims to address the core beliefs of participants through self-reflection in order to improve the efficacy of the intervention.

Figure 2. Constructs of the Cognitive Behavioral Theory in the Adolescent Allies program



## Program Description

The Adolescent Allies program uses an educational and interactive approach for adolescent cancer survivors in order to address thoughts and feelings through behavior change. The program works with adolescents aged 10-19 that have completed treatment at least two years prior in order to address their anxiety, depression, and quality of life as they enter adulthood. The program will be held at St. Jude Children's Research Hospital and will be offered to patients that meet the age and time post-treatment criteria. In adolescent and young adult cancer survivor interventions, largely in-person initiatives have shown to maintain the most positive impact (O'Donnell et al., 2025). In-person attendance is correlated with increased rates of educational attainment, which is why that is the preferred mode of delivery (Photopoulos et al., 2023). Therefore, the program will mainly recruit participants that are able to attend sessions in-person. With the short duration and consistency of the program, in-person attendance is encouraged, but online attendance remains welcome. With a rather specific population, an online format is necessary to remain inclusive for members of the adolescent cancer survivor community. The program will run efficiently with the use of online video-call formats and will not be minimized for online participants.

In a small group, classroom setting, the Adolescent Allies program will be delivered over eight weeks with two 90-minute meetings each week. There are two meetings each week to build rapport with and among the participants. The eight-week program is built on addressing thoughts and feelings through behavior using the Cognitive-Behavioral Theory. To disseminate the information, a health educator is assigned. The health educator is tasked with creating lecture material and leading each session under the supervision of the project manager or coordinator. The health educator will be required to consult weekly with a psychologist to address materials and assess room for improvement. The program is divided into three phases based on intent and expected outcome: Foundations and Understanding, Self Reflection, and New Habits. The first phase, Foundations and Understanding, will cover the first six sessions and focus on educational material delivered through interactive lessons. Lessons will be interactive through active class and group discussion throughout the session. The second phase, Self Reflection, covers sessions seven through ten and requires participants to analyze their individual thoughts, feelings, and behaviors. This phase places emphasis on journaling and introspective tasks, while still encouraging group cohesion. The third phase, New Habits, covers sessions eleven through sixteen and aims to highlight healthy behaviors and contribute to change among the adolescent participants. Two of these sessions will be delivered by a fitness instructor who will be trained to utilize several forms of movement.

Each focus and activity of the Adolescent Allies program is rooted in the CBT model, highlighting the interconnectedness of behavior, thought, and emotion. Activities for the intervention will be educational to incite thought and emotion realization among participants and will involve skill building to incite behavior change. The program will hardly require homework, as most tasks can be completed in the classroom. As the program enters the Self Reflection phase, there will be psychological-based homework for participants. Though they will not be given sheets to fill out and return, participants will be asked to journal their thoughts and intrapersonal realizations to maximize the program's efforts. For this program, educational materials are the most relevant. The program will largely use discussion and inciteful thinking among participants.

## Implementation Plan

The program will begin May 31, 2026, and last eight weeks to conclude on July 31, 2026. Before the program begins, both internal and external measures must be established. First, staff must be hired. For the program, staff must include a project director, a project coordinator, a media director, a psychology-based healthcare professional, a health educator, and a fitness instructor. The project director is expected to lead the program and oversee each employee and their conduct. The project coordinator also serves as a leader, overseeing the synchronization of the program's employees, community relations, and education materials. The media director is responsible for dissemination of information regarding the program through email, the website, and social media. The psychology-based healthcare professional is necessary for consultation of presentations and to offer recommendations to the health educator presenting the information. The health educator is responsible for creating presentations for each session, providing supporting material, and delivering the presentations to participants. The fitness instructor is only needed for three sessions towards the end of the program, to showcase exercise regimens that improve outcomes related to anxiety, depression, and quality of life.

Prior to the program, community partnerships must also be built for support and unitization. Specifically pertaining to mental health, the Tennessee Department of Mental Health & Substance Abuse Services is a program that houses support for co-occurring programs that focus on similar facets (Mental Health Services, n.d.). Other relationships may be built with relevant, smaller businesses, such as Blues & Song Psychiatry. With utilizing them as a resource, program staff can build rapport and recommend their therapy services to participants, increasing their business engagement if willing. The Dear Jack Foundation works as a partner across the U.S. with programs targeting adolescent and young adults (and their families) through treatment and survivorship. This is a potential partnership that could benefit the program with recruitment, with return benefit of service usage by participants.

As the program is based at St. Jude, the formative evaluation would require the inclusion of the Division of Cancer Survivorship and the Department of Psychology. The Division of Cancer Survivorship serves the hospital, conducts trials, educates patients, families, and providers, and informs health policy (Division of Cancer Survivorship, n.d.). Utilizing the Division would confirm that the program's content, delivery, and tools are appropriate and well organized for the survivor population. The Department of Psychology would ensure content and delivery are age-appropriate and incite only positive change. Consulting St. Jude's Psychosocial Oncology Department is the initial step in conducting a needs assessment of the adolescent cancer survivor population. This offers specific understanding of the St. Jude population's demographics and mental standing. Additionally, through the Division of Cancer Survivorship a survey could be administered directly to survivors and their families. This offers direct, timely understanding of the population at risk in preparation for program planning. Pilot testing needs to occur four months prior to the intervention start date and obtain approximately ten participants over the course of four weeks. The pilot test would assess feasibility and acceptability, ensure working data collection tools, and gather small-scale data on outcomes (anxiety and depression reduction and quality of life improvement). Data from the pilot test would be collected through planned intervention tools with an additional qualitative survey. In order to recruit out target population, the program's media director will design an age-appropriate graphic inviting adolescents. The graphic will be gender neutral in theme with a design appealing to adolescents.

Additionally, the graphic will have a small note to parents, which is a necessary addition when dealing with an underage population. This flyer will require approval of the project coordinator before dissemination. Recruitment could be carried out in a multitude of ways. For the largest scale recruitment, prior St. Jude patients, now adolescent aged, could be contacted through their psychiatrist, oncologists, or primary provider about the program. Additionally, informational flyers should be placed throughout St. Jude, relevant oncology clinics, and psychiatric offices for voluntary admittance. Once recruited, participants are expected to report parental consent (if under 18) and be in communication with the program coordinator in the time leading up to the intervention start date.

Funding could be applied for and received through grant opportunities, including the National Cancer Institute, the Children's Cancer Research Fund, and The Harry and Angie Giallourakis AYA Cancer Research Fund. The National Cancer Institute typically offers small grants to outcome research and doesn't necessarily require a clinical trial to receive funding (National Cancer Institute, n.d.). The Children's Cancer Research Fund is a national nonprofit that values quality of life programs. As of 2025, they are increasingly focused on survivorship which is well correlated with the current program (Research Grant Programs, n.d.). Lastly, The Harry and Angie Giallourakis AYA Cancer Research Fund aims to support research that has a direct impact on the adolescent and young adult cancer community (Steven G. Foundation, n.d.). Since the venue is set to be in St. Jude's, equipment is already provided. The only supplies necessary throughout the program could be acquired at a print center.

As the program is running, staff monitoring and community engagement will remain ongoing. Community engagement will be entirely handled by the media director, sending out weekly emails to the involved community and sponsors. Additionally, the media director will make social media posts documenting the process without processing anonymity. For the process evaluation, the project director or project coordinator will oversee each session to ensure the program is being delivered as intended. Both the project director and project coordinator will utilize observation forms for documentation. To assess how the intervention is being received by participants, attendance records will be assessed, and surveys will be administered. Attendance will indicate the number of engaged participants, whereas surveys will indicate the acceptability/enjoyability of the content. Given these records, the project director, the project coordinator, the health educator, and the healthcare professional will discuss engagement, need for improvement, and necessary adaptations going forward.

The program will conclude with sessions on July 31, 2026. At the end of the final session, a post-assessment will be carried out as a measure of outcome evaluation. This post assessment will be administered in-person, using both the health educator and psychology-based healthcare professional. The health educator will gather qualitative data through exit interviews regarding feelings of anxiety and depression, whereas the healthcare professional will administer standardized anxiety and depression tests as quantitative data. To assess impact, online or in-person follow ups will be offered at the three-month and six-month marks following the program. Results of these qualitative and quantitative interviews will suggest the extent of impact directly from the intervention. The outcomes found from the follow-up will be assigned a numeric value for data analysis and review. Primary outcomes (anxiety, depression, and quality of life) will be measured to show participant evolution from baseline. Final demographic data will be described with means and standard deviations and compared with baseline data. Using a linear mixed effect model would analyze repeated measures (anxiety, depression, and quality of

life) throughout the program. Using the collected and organized data, each community partnership and stakeholder will be emailed an impact statement along with key data points. The statement will include only overview statistics about the program's outcomes, but specific data is available upon request. This message is to thank community stakeholders, showcase how they aided in the program, and encourage them to help in the future.

Table 1. Curriculum Table

	Focus	Activities
<b>Phase 1: Foundations &amp; Understanding</b>		
<b>Session 1 &amp; 2</b> (Week 1)	<ul style="list-style-type: none"> <li>- Program understanding for participants</li> <li>- Socialization among groups</li> <li>- Understanding mental health, specifically anxiety and depression</li> </ul>	<ul style="list-style-type: none"> <li>- Icebreaker/group introductions</li> <li>- Showcase overview of program timeline</li> <li>- Lecture on mental health</li> <li>- Discussion on anxiety/depression perception</li> <li>- Anxiety, depression, and QOL baseline assessments</li> </ul>
<b>Session 3 &amp; 4</b> (Week 2)	<ul style="list-style-type: none"> <li>- Relevance of anxiety and depression in teen years</li> <li>- Understanding thoughts and feelings associated with anxiety and depression</li> <li>- Recognizing the relationship between cancer survivorship and mental health</li> </ul>	<ul style="list-style-type: none"> <li>- Lecture on importance, relevance, and associated thoughts/emotions</li> <li>- Direct group discussion on how being a survivor has had emotional, physical, or social impact</li> <li>- Instruct journal entry on reflection of personal accounts that induce anxiety and depression and apparent effects</li> </ul>
<b>Session 5 &amp; 6</b> (Week 3)	<ul style="list-style-type: none"> <li>- Identifying healthy psychological coping habits</li> <li>- Establish importance of community and social relationships</li> </ul>	<ul style="list-style-type: none"> <li>- Lecture on coping, benefits and common ways</li> <li>- Lecture on socialization and QOL improvements</li> <li>- Group illustration of shared emotions through class exercise</li> </ul>
<b>Phase 2: Self Reflection</b>		
<b>Session 7 &amp; 8</b> (Week 4)	<ul style="list-style-type: none"> <li>- Recognizing individual thought patterns</li> <li>- Relationship between thoughts and anxiety or depression</li> </ul>	<ul style="list-style-type: none"> <li>- Lecture on common thought patterns and association with anxiety/depression</li> <li>- Instruct journal entry of times that a negative thought led to decreased mental health</li> <li>- Group thought reframing</li> </ul>
<b>Session 9 &amp; 10</b> (Week 5)	<ul style="list-style-type: none"> <li>- Personal strength and acceptance</li> <li>- Sense of purpose</li> </ul>	<ul style="list-style-type: none"> <li>- Positive note/letter to current/future self-workshop</li> <li>- Class discussion of life goals</li> <li>- Journal entry of reasons to improve QOL</li> </ul>
<b>Phase 3: New Habits</b>		
<b>Session 11 &amp; 12</b> (Week 6)	<ul style="list-style-type: none"> <li>- Anxiety and depression reduction behaviors</li> <li>- Finding a suitable reduction behavior for participants</li> </ul>	<ul style="list-style-type: none"> <li>- General lecture on physical activity, creative outlets, and breathing exercises</li> <li>- Group discussion on most exciting reduction behaviors and why</li> </ul>
<b>Session 13 &amp; 14</b> (Week 7)	<ul style="list-style-type: none"> <li>- Creative outlet relevancy to mental health/QOL</li> <li>- Physical activity relevancy to mental health/QOL</li> <li>- Fitness instructor lesson on swimming, walking, running, and yoga</li> </ul>	<ul style="list-style-type: none"> <li>- Lecture on how creative and physical behaviors impact thoughts and feelings</li> <li>- Journal entry ranking outlet options</li> <li>- Group discussion on behavior change's positive impact on QOL</li> </ul>
<b>Session 15 &amp; 16</b> (Week 8)	<ul style="list-style-type: none"> <li>- Assessing creative and physical outlets for personal use</li> <li>- Establish routine incorporating reduction behavior</li> <li>- Final evaluation</li> </ul>	<ul style="list-style-type: none"> <li>- Session dedicated to practicing both physical and creative outlets at participant discretion</li> <li>- Journal entry on activity scheduling using SMART objectives</li> <li>- Anxiety, depression, and QOL post-assessments</li> </ul>



## Evaluation Plan

The Adolescent Allies program is designed to improve the outcomes associated with anxiety and depression among adolescent (age 10-19) cancer survivors that received treatment from or are within proximity of St. Jude Children's Research Hospital in Memphis, TN. The program will run with participants from May 31<sup>st</sup>, 2026, to July 31<sup>st</sup>, 2026. Designated staff will be working on the program and conducting evaluations starting in February of 2026 until August of 2027. The evaluation will largely focus on acquired information, behavior change, and decreased anxiety and depression impacts among participants.

### Intended Use and Users

The purpose of the evaluating Adolescent Allies is to ensure that the program reduces anxiety and depression related symptoms and improves quality of life. The evaluation is largely aimed to monitor the health educator and their educational lectures administered through each session and the impact of the sessions on participants. The evaluation is intended to ensure that the program remains based in the cognitive-behavioral theory (CBT), therefore resulting in behavior modification due to change in thoughts and emotions. The intention of the formative evaluation is implementing CBT rationale into the program. The intent behind the process evaluation is to ensure the program is running as expected, monitoring CBT adherence, health education standards, and participant engagement and adherence. The summative evaluation is aimed to measure emotional, cognitive, and behavior changes and in participants and their quality-of-life improvement related to the intervention.

Through the formative, process, and summative evaluation, the media director will be accountable for disseminating the information and findings. Established community sponsorships, funding sources, and sponsors will be given the data of each evaluation. Additionally, the parents of participants (with participants' consent) will be given access to the evaluation results. Using the program's social media, the media director will post a summary of the summative evaluation's findings. Additionally, the results will be available to the Department of Psychology and Biobehavioral Sciences for widespread dissemination if warranted. The psychologists within this department and the program's funding sources are the primary intended users of the evaluations as they are able to act using the program's outcomes.

### Program Description

Adolescent Allies is an eight-week program for adolescent cancer survivors, aimed at decreasing anxiety and depression outcomes and improving quality of life. The program is based in the CBT and uses education, cognitive restructuring, introspection, and peer discussion. The program is intended to increase participant understanding of mental health, to assess their personal anxiety, depression, and thought processes, and to find an appropriate creative or physical behavioral outlet to improve their mental outcomes and quality of life. The first phase of the program, Fundamentals and Understanding, will be aimed at psychoeducation in alignment with the CBT. The psychoeducation is delivered by the health educator, with lessons to better understand general mental health and activities to incite participant's personal understanding. In the second phase of the program, Self Reflection, participants will be led to challenge their thought patterns with information. Reconstructing their anxious, depressive, and negative thought patterns will improve their thoughts and therefore their feelings and behaviors according to the CBT (Chand et al., 2023). In the final program phase,

New Habits, participants will be instructed and encouraged by the health educator and fitness instructor to explore creative and physical outlets for long-term reduction of anxiety and depression symptoms, improving quality of life. With using the order of education, thought reconstruction, and positive behavior instruction, this program design follows the CBT's relationship between thought, feelings, and behavior.

### **Evaluation Focus**

In the formative evaluation, adolescent cancer survivors, caregivers, and psychologic professionals will be questioned through surveys. This needs assessment will highlight areas of concern among the target population as the program is being developed. Two months prior to the eight-week program, a four-week pilot test will be conducted. This pilot test will assess the feasibility and acceptability of the planned program, with open feedback from participants to refine the intervention. The CBT framework will be implemented into the sessions as they are created, targeting thoughts and behavior change

Prior to the intervention, participants will be administered baseline questionnaires, measuring their current psychological state and quality of life, understanding of depression and anxiety, opinion on counseling, and current behaviors. The primary measurement tool for anxiety is the Beck Anxiety Inventory (BAI). The BAI is a 21-item self-reported measure, assessing the intensity of physical and cognitive anxiety symptoms (American Psychological Association, 2022). The primary measurement tool for depression is the Patient Health Questionnaire-9 (PHQ-9), a nine-question questionnaire. This objectifies and assesses the severity of depression (Ford et al., 2020). To measure quality-of-life, the 36-Item Short Form Survey (SF-36) will be delivered. The SF-36 is a set of easily administered quality-of-life measures (Anderson et al., 1996). Baseline questionnaires, the BAI, the PHQ-9, and the SF-36 will be used as baseline rates for the process and summative evaluation.

As the program is formed, lessons for participants will include education on mental health, relevance to the participants, healthy psychological habits, introspection, and purpose, targeting thoughts and emotions. For process evaluation, the adherence to this initial CBT-based educational plan will be evaluated through the project coordinator's periodic session attendance. The health educator will be trained on CBT delivery and educational measures prior to the program's start. Under the project coordinator's supervision, the health educator will be evaluated on delivery competence. Additionally, the health educator will complete a self-assessment form on their own delivery and satisfaction. Participants' acceptability of the program will be measured through engagement, and surveyed opinions on the program. Feasibility will be evaluated largely through participants' regular attendance. Other barriers to program delivery will be identified through the program coordinator's session reports, the health educator's self-assessment, and the participant's feedback.

The summative evaluation will repeat the initial baseline assessment of which included their psychological state and quality of life, understanding of depression and anxiety, opinion on counseling, and current behaviors. The BAI, the PHQ-9, and the SF-36 will be repeated. Additional specific questions will be asked regarding educational uptake, including the relationship between psychological state and quality-of-life and program social media acceptance. The program's impact will be assessed through the short-term outcomes of the program's logic model. Participant relevant short-term outcomes include increased understanding of personal psychological state, general methods to decrease anxiety and depression, the correlation between psychological state and quality-of-life, and a 5% reduction in anxiety and/or

depression among participants. Personal psychological state, anxiety and depression reduction methods, and the reduction in anxiety and/or depression will be measured through comparison of the baseline and directly post-intervention data. Understanding of the relation of psychological state and quality-of-life will be measured directly post-intervention. Relevant intermediate and long-term outcomes include therapist/counselor obtainment, increased awareness of anxiety and/or depression reduction skills and behavior, decreased anxiety/depression, and increased quality-of-life, all of which will be measured through baseline and post-intervention data comparisons.

## **Methods**

The evaluation indicators and performance measures will utilize a mixed-methods approach, using largely surveys and questionnaires, but also interviews, discussion, assessments, and reports to assess the program. In alignment with CBT, surveys are a powerful test of beliefs and feelings pertaining to behavior (Murray et al., 2022). Additionally, questionnaires serve as a strong assessment of participant adherence within a program (Söchting et al., 2017). Using each of the aforementioned tools will ensure that the program is credible, educational, engaging, and effective. The formative evaluation will be conducted prior to the program's start to assess the populations' needs and align them with the intervention, the feasibility and acceptability of the planned CBT framework, and assess the psychological state of the participants. The populations' needs, including demographic data, thoughts, feelings, and behavior regarding anxiety, depression, and quality-of-life, will be assessed utilizing a Qualtrics questionnaire and Likert survey. This will occur in February of 2026, with quantitative and qualitative data being produced. The feasibility and acceptability of the CBT framework will be evaluated following the program's pilot test, using a Qualtrics questionnaire. To examine the levels of anxiety and depression and quality-of-life in participants, the BAI, PHQ-9 and the SF-36 questionnaires will be administered in May 2026, directly before the program's start. Each of these evaluation's results will be managed and interpreted by program staff.

The process evaluation will be conducted throughout program delivery (June and July of 2026) to ensure the program is being delivered as intended, that the program is well received and feasible, and assess apparent barriers in delivery. The adherence and continuation of the educational plan will be assessed through the project coordinator and project director's attendance of sessions. As staff attends the program's session, they will complete report sheets regarding the program's topic and delivered information. The program's acceptability and feasibility will be determined by participant attendance, which will be monitored by staff as participants enter and exit each session. To evaluate barriers to program delivery, a quantitative and anonymous survey will be administered to participants to share their opinions regarding the program's materials and their satisfaction. The project coordinator and project manager will review this feedback in relation to attendance and make changes to the program accordingly.

The program's summative evaluation will occur at the end of the program, evaluating effectiveness of the program's educational materials on participant knowledge and behavior through outcomes. Short-term outcomes will be assessed through discussion, assessments, and questionnaires. Participant's knowledge regarding their personal psychological state, general reduction behaviors and skills, and the relevance of quality-of-life will be assessed following the last program session. This will be evaluated using group discussion followed by a group quiz, of which will be handed to program staff following completion. Participant's anxiety, depression,

and quality-of-life will be evaluated as a short-term, intermediate, and long-term outcome. This will be measured through the electronic readministration of the BAI, PHQ-9, and SF-36 questionnaire to participants immediately post-intervention, six-months following, and twelve-months following. These results will be compared to their results prior to the program. Acquired anxiety and depression reduction behaviors will be assessed as intermediate and long-term outcomes, six-months and twelve-months following the intervention. These will be evaluated through a Qualtrics questionnaire to generally assess behaviors/skills and an interview by the project coordinator and health educator to understand a further depth of behavior change. The participant focused long-term outcome of a 90% reduction in anxiety and/or depression will be evaluated twelve-months following the program. This will be assessed through a repeated BAI, PHQ-9, and general demographic survey. The questionnaires and survey will be administered electronically and reviewed by the project coordinator and psychologist.

*Table 2. Evaluation Data Collection Overview*

Indicators/Variables	Source	Overview		
		Time Period	Staff	Methods
Formative Evaluation				
Needs assessment (demographics, thoughts, feelings, reduction behaviors)	Qualtrics questionnaire, Likert Survey	February (Y1)	Project Manager and Project Coordinator	Quantitative and qualitative data managed and interpreted by staff
Feasibility and acceptability of CBT framework in intervention	Qualtrics questionnaire post-pilot test	March-April (Y1)	Project Manager, Project Coordinator, and Health Educator	Qualitative data analyzed by staff
Levels of anxiety, depression, and quality-of-life in participants	BAI, PHQ-9, SF-36	May (Y1)	Project Coordinator and Health Educator	Results deciphered by staff
Process Evaluation				
Adherence to educational plan	Staff attendance	June-July (Y1)	Project Manager, Project Coordinator, and Health Educator	Staff uses report sheets following each attended session to indicate material assessed
Program's feasibility and acceptability	Participant attendance	June-July (Y1)	Project Coordinator and Health Educator	Staff will remain at door as participants enter/exit to sign them in/out during each session
Barriers to program delivery	Quantitative, anonymous survey	June-July (Y1)	Project Coordinator and Health Educator	Staff will review participant's opinions in relation to participant attendance
Summative Evaluation				
Increased knowledge of reduction behaviors and of quality-of-life (thoughts)	Group discussion and group quiz	July (Y1)	Project Coordinator	Physical assessments handed out to each group to turn in when completed
Improvements in psychological well-being of participants (feelings)	Pre- and post-BAI, PHQ-9, and SF-36	August (Y1), February (Y2), and August (Y2)	Project Coordinator and Psychologist	Questionnaires sent to participants electronically

Established anxiety/depression reduction skills and behaviors among participants (behavior)	Qualtrics questionnaire and interview	February (Y2) and August (Y2)	Project Coordinator and Health Educator	Interview to share depth of behavioral evolution, questionnaire to evaluate varying skills
Reduction in anxiety or depression by 90% (thoughts/feelings)	Pre- and post-BAI, PHQ-9, and general demographic survey	August (Y2)	Project Coordinator and Psychologist	Questionnaires and surveys sent to participants electronically

## Analysis and Interpretation Plan

As the program's produced data is both qualitative and quantitative, the mixed-method approach requires statistics to be utilized for comparative analysis. The quantitative data from Likert surveys, demographic surveys, closed-ended questionnaires, and assessments will be evaluated using descriptive and inferential statistics. Descriptive statistics will summarize the variables for simplified understanding and dissemination, and inferential statistics will establish probability and credibility of and in the results (Kotronoulas et al., 2023). The qualitative data from interviews and open-ended questionnaires will be continuously transcribed throughout obtainment. With the accumulated transcribed data, this will be searched for themes and commonalities among responses to varying questions, of which will be coded (Busetto et al., 2020). Coded responses will be synthesized to be further analyzed. Both quantitative and qualitative data will be interpreted soon after the time of collection and will be reported at the biweekly staff meeting that occurs throughout the program. The biweekly meeting will include all program staff, of which the Media Director will prepare data to be shared with community partnerships, sponsors, and appropriate family members of participants. Until the program's study conclusion, official and conclusive findings will not be disseminated. Following August of 2026, finalized program findings will be disseminated with healthcare officials and made public.

## Use, Dissemination, and Sharing Plan

Throughout the formative, process, and summative evaluation, findings from all investigative measures will be consistently measured. Results of the evaluations will be used to shape the CBT framework in alignment with the program, monitor participant acceptability, and address barriers to ultimately improve the anxiety, depression, and quality-of-life outcomes in adolescent cancer survivors. Evaluations will be conducted leading up to the program, half-way through the program, immediately post-intervention, six-months post-intervention, and twelve-months post intervention. During the program, findings will be discussed at biweekly staff meetings. These findings will be organized to be shared by the Media Director with appropriate outlets. Following the program's end, checkpoint findings will be discussed at then monthly staff meetings. Once the long-term outcomes are evaluated, findings will be shared with St. Jude's Department of Psychology and Biobehavioral Services for further clinical application.

## Marketing Plan

### Overview and Target Population

The marketing plan for the Adolescent Allies program will be overseen by both the project manager and project coordinator and directly disseminated by the media director. The project manager and coordinator will reach out to relevant clinics, offices, and organizations regarding the program and ability to host the advertisement. To market the program, advertisements will be strategically placed to aim at adolescent cancer survivors aged 10 to 19 years old. To be eligible for the program, interested participants must be within the target age range, received cancer treatment, and have completed their last treatment at least six months prior. The program hopes to recruit 20 to 40 participants. Marketing tactics will also be aimed at parental figures of adolescent cancer survivors.

### Participant Recruitment

The media director will be responsible for creating flyers, including the creative design and messages showcased on them. They will be assigned with posting the flyers in the St. Jude After Completion Therapy Clinic, other St. Jude locations, and psychology clinics in the Memphis, TN area. We will also ask that St. Jude clinic staff and external psychological staff verbally mention or highlight the program to seemingly eligible participants. Additionally, the media director will be tasked with distributing an online format of flyers and infographics to national nonprofits, including *Stupid Cancer* and the American Cancer Society for online dissemination to eligible participants. These physical and online flyers will be run for six weeks. On the flyer, there will be a quick response (QR) code to the program's Instagram and Facebook page. The Instagram page will be designed to aim to potential participants, whereas the Facebook page will aim for parental appeal. Since the program is St. Jude affiliated and will occur on its campus, oncology providers will be asked to consult willing patients regarding the program. The patients will be analyzed for eligibility criteria by their respective physician, then reached out to through phone or email. The final recruitment tactic will include the media director contacting appropriate podcast hosts. The hosts of the *AYA Cancer Chat: Life Interrupted* podcast and *The Science of...* podcast will provide a program description and enrollment information at the end of their episodes. Podcast recruitment will last for a month, with information included in each episode within the month. This is an effort to recruit participants seeking community or mental health aid through these platforms.

### Participant Retention Plan

An incentive for participation will be offered to those who enroll in the program, four weeks or half-way through the program. The incentives will be three \$75 general gift cards, of which participants will be randomized to receive. Outside of this, all participants will be offered an individual consultation with the program's psychologist. To retain the participants, the program coordinator and media director will work together to formulate a message regarding the incentives. Prior to the program, they will formulate and send an email to participants, making them aware of the specific incentives and the intentions behind them. Another method of retention will be to offer a pediatric oncology-based donation match, matched by the number of recruited participants. The location of which the donation will be sent will be anonymously voted on by participants at the conclusion of the program. To encourage parent retainment, one parent will randomly receive a \$100 meal delivery gift card at the conclusion of the program. The gift card incentives will be allocated for in the program's budget (\$325).



**Special Considerations**

As the majority of the target population are children (those aged 10-17), legal issues can arise without parental consent. Therefore, at least one parental figure of each participant will be aware of their enrollment in the program. With the vulnerable focus of the program, participants may not feel comfortable with their personal, emotional state being shared with their parent or guardian. Therefore, the program's Instagram account will have a post dedicated to participant confidentiality awareness. This post will allow participants to understand that without their consent, information about their mental status or feelings will not be shared with their family. To make parental figures aware, the Facebook page will have an announcement sharing that information may remain confidential. This post will also aim to increase parental understanding of why confidentiality is potentially necessary and important in achieving this program's goals.

## Budget & Resources

Project Title: Adolescent Allies							
Period of Performance: February 1st 2026 to August 30th 2027							
Personnel	Salary		% effort	Calendar Months	Year 1	Year 2	Total
Paige Williams	45,000		35%	6.4	15,750	16,223	31,973
Project Director	benefits @	54%			8,505	8,760	17,265
Macy Smith	40,000		50%	8.0	20,000	20,600	40,600
Project Coordinator	benefits @	54%			10,800	11,124	21,924
Clayton Wright	17,000		15%	4.0	2,550	2,627	5,177
Media Director	benefits @	60%			1,530	1,576	3,106
Kate Brice	25,000		20%	4.5	5,000	5,150	10,150
Health Educator	benefits @	60%			3,000	3,090	6,090
Caleb Hull	35,000	54%	10%	3.0	3,500	3,605	7,105
Psychologist	benefits @				-	-	-
					-	-	-
					-	-	-
<b>Total Personnel</b>					<b>70,635</b>	<b>72,754</b>	<b>143,389</b>
<b>Equipment</b>					<b>3,600</b>	<b>-</b>	<b>3,600</b>
Technology					3,600		
<b>Travel</b>					<b>-</b>	<b>-</b>	<b>-</b>
<b>Supplies</b>					<b>1,025</b>	<b>550</b>	<b>1,575</b>
Printing (Flyers)					550	550	
Journals (for participants)					150		
Gift Cards (Participant retention)					325		
<b>Other Expenses</b>					<b>1,400</b>	<b>-</b>	<b>1,400</b>
Venue					800		
Haley Robbins, Fitness Instructor					600		
<b>Total Direct Costs</b>					<b>76,660</b>	<b>73,304</b>	<b>149,964</b>
Indirect Costs @	33%				25,298	24,190	49,488
<b>Total Costs</b>					<b>101,958</b>	<b>97,494</b>	<b>199,452</b>



## **Personnel**

The Adolescent Allies general staff is made of five professionals, including a project director, a project coordinator, a media director, a health educator, and a psychologist. Their specific roles and responsibilities in the program are outlined below.

### **Paige Williams, MPH, MHA Project Director – 6.4 calendar months (35% effort) in Years 1-2**

Mrs. Williams is a certified health and management administrator with a Master's Degree in Public Health and Health Administration. She has 10 years' experience working for the Tennessee State Health Department, overseeing pediatric services and programs of health departments within the district. Mrs. Williams. She has conducted ongoing needs assessments of the pediatric population to evolve advancements in services and programs aimed towards children and adolescents. Additionally, she has experience of supervising staff of pediatric services and programs and monitored data of the programs. In Mrs. Williams' time in an administration position, she has effectively made implementations of group-based intervention in the pediatric population.

Mrs. Williams' prior success in working in southeastern communities, supervising programs and services, and implementing changes in and monitoring interventions, along with her passion and expertise in pediatric populations, makes her highly qualified and able to lead the proposed project.

Mrs. Williams will carry out the following duties on the proposed project:

**Year 1:** Mrs. Williams will spearhead the creation of community relationships and partnerships, contacting community psychology clinics and other relevant locations/programs with existing St. Jude partnerships. She will train the project coordinator, Macy Smith, in administration and project management protocol. Mrs. Williams will train the media director, Samuel Parker, in digital standards, in addition to creating a calendar of when project relevant information must be disseminated. She will also train the health educator, Kate Wells, on important topics, the program's course, and ethical standards. Mrs. Williams will also plan and direct biweekly staff meetings, checking in with each staff member.

**Year 2:** Mrs. Williams will continue to maintain community relationships and partnerships. Alongside Ms. Smith, Mrs. Williams will monitor psychiatric referrals or attempts to receive treatment from participants. She will coordinate monthly staff meetings in the year following the program and hold special discussions as 6, 9, and 12-month post-session data is received.

### **Macy Smith, MPH, Project Coordinator - 8.0 calendar months (50% effort) in Years 1-2**

Ms. Smith has a Master's Degree in Public Health and has experience working with adolescents in Tennessee. For 5 years, she has worked in coordinating pediatric mental health interventions across Tennessee behavioral health clinics. Ms. Smith has an increased inclination and understanding of adolescent mental health. For the program,

Ms. Smith will be responsible for attending each program session, collecting and interpreting data of participants, and oversight of media management.

Ms. Smith will carry out the following duties on the proposed project:

**Year 1:** Ms. Smith will monitor the program's education, community relations, data collection, and participate in the health educator and psychologist weekly discussions. Prior to the program's start, Ms. Smith will build a collaborative team schedule including all staff in addition to appropriate data collection, management and evaluation tools. She will aid the health educator in lecture and session material for each session and attend each session (in-person or online) following the program start date. Working under Mrs. Williams, Ms. Smith will serve as a point of contact for the media director and oversee distributed information. Ms. Smith will manage and review data collection on participants, enrollment, and both collect and personally evaluate process evaluation data.

**Year 2:** Ms. Smith will continue to monitor community relations and data collection. She will disseminate the 6, 9, and 12-month follow-up surveys to participants and input follow-up data, analyzing the outcome evaluation. Ms. Smith will establish a new biweekly posting schedule with Mr. Wright to keep followers informed, inspired, and encouraged.

**Clayton Wright, MPH, Media Director - 4.0 calendar months (15% effort) in Years 1-2**

Mr. Wright has a Master's Degree in Public Health with a concentration in Health Communication and has experience working under the American Academy of Pediatrics (AAP). In his experience at the AAP, he has focused on healthy mental developmental programs worked to address gaps in adolescent mental health programs and bring awareness to these gaps through advancement suggestions. He has specifically worked with the "Bright Futures" program in both the creation of promotional content and maintenance of sponsor and community relationships.

Mr. Wright will carry out the following duties on the proposed project:

**Year 1:** Mr. Wright will undergo training regarding the program's intent, focus, desired messages to the public, and expectations of dissemination. Mr. Wright will discuss a tentative report and media release schedule with Ms. Smith to be approved by Mrs. Williams. He will be responsible for weekly emails and messages to community partnerships in addition to relevant social media posts on Instagram. Additionally, he will be tasked with designing infographics for both in person and online recruitment. Prior to the program, Mr. Wright will be tasked with building a social following and directly meeting community partners that will receive his written or designed updates.

**Year 2:** Mr. Wright will continue to release media through email and social platforms. Emails will be sent to community partners and relationships with the immediate post-intervention updates and participant data, then again at 6 months, 9 months, and 12 months post intervention. Biweekly social media posts will continue, with a planned biweekly schedule of content.

**Kate Brice, MPH, MSW, Health Educator - 4.5 calendar months (20% effort) in Years 1-2**

Ms. Brice has a Master's Degree in Public Health and Social Work. She has recent experience as a child and adolescent health coordinator and specialist in Shelby County, TN. Working under the Shelby Health Department, Ms. Brice has developed and coordinated services for children and adolescents pertaining to vision, hearing, chronic disease prevention, and behavioral health. With this, she has worked and collaborated with local schools, pediatricians, and regional public health personnel. In her development and coordination, she has directly instructed children, adolescents, local schools, and pediatricians.

Ms. Brice will carry out the following duties on the proposed project:

**Year 1:** Ms. Brice will undergo training on educational standards, relevant lecture topics, and the expected format of dissemination. Directly working with Ms. Smith, Ms. Brice will craft a specific schedule for each session, including lecture material, group discussion time, and group tasks. She will be largely tasked with delivering the program's education and serving as the face of the program to participants. Following each session, Ms. Brice will be tasked with filling out post-session report sheets that will be reported to Ms. Smith and Mrs. Williams. Each week, she will meet with the program's psychologist to discuss how the topics, delivery format, or general program layout could be improved to maximize the participant's psychological impact.

**Year 2:** Ms. Brice will attend monthly staff meetings. Using her post-session report sheets, she will analyze the varying checkpoint outcome data. In monthly staff meetings, she will be required to discuss program pitfalls and successes as she observed them, and how these observations made contribute to observed data outcomes.

**Caleb Hull, PhD, Psychologist – 3.0 calendar months (10% effort) in Years 1-2**

Mr. Hull has a PhD in Clinical Psychology and Counseling Psychology. He has 17 years of experience working in the Department of Psychology & Biobehavioral Services at St. Jude. He has done extensive research in pediatric and adolescent psychology and has served clinically, working directly in the consultation and assessment of pediatric and adolescent cancer patients.

Mr. Hull will carry out the following duties on the proposed project:

**Year 1:** Following Ms. Brice and Ms. Smith's specific yet tentative session plan for the program, Mr. Hull will be tasked with reviewing the format, education materials, timing, and probable participant impact. With this, he will make suggestions as he sees fit to improve the positive uptake by participants. Once the program begins, Mr. Hull must be present for weekly meetings with Ms. Brice to review that week's outcomes, where he is asked to make clinical or educational suggestions. Additionally, he will be asked to present for biweekly staff meetings to discuss the program's direction and potential changes to improve outcomes.

**Year 2:** Mr. Hull will assess psychological and behavioral data with Ms. Brice and attend monthly meetings. In monthly staff meetings, he will make clinical interpretations of the data for Mr. Wright to explain to the community.

## **Equipment & Supplies**

### **Technology (\$4,400, Year 1)**

We request funds to purchase four laptop computers (priced at \$900 each) in Year 1. These computers will be entirely dedicated to the program and will be provided to the program director, program coordinator, media director, and health educator. These will allow personnel to track program progress, manage data, disseminate information, design visual aids, open an online program format, and create educational tools. The total technology cost is \$3,600 in Year 1.

### **Printing/Paper costs (\$550 each year, Years 1-2 & \$150, Year 1)**

We request \$550/year to cover the costs of printing during the program. This will be aimed to cover the costs of printed infographics for recruitment, consent documents (if requested), and program data sheets (if requested). We request \$150 to purchase journaling notebooks and writing utensils for use in Year 1. These will be provided to each participant for use throughout the program.

### **Gift cards (\$325, Year 1)**

To retain participants, three \$75 Visa gift cards will be offered to participants. To retain parental figures, one \$100 meal delivery gift card will be offered.

## **Other Expenses**

### **Venue (\$800, Year 1)**

All sessions will be held or partially held in a classroom of the St. Jude building. This room is equipped with tables, chairs, and a smartboard for lectures. Each session will be charged \$50.

### **Fitness Instructor (\$600, Year 1)**

The project will utilize the services of Haley Robbins, a group exercise instructor and adaptive fitness trainer, certified by the American College of Sports Medicine, at the rate of \$200 per hour.

**Year 1:** Prior to the last phase of the program, Mrs. Robbins will be tasked with presenting different forms of physical activity during a session. This must include walking, running, yoga, and cycling. She will demonstrate and explain how to properly do each form. Alongside Ms. Brice, Mrs. Robbins will supervise the participant's day of movement and correct any improper form.

**Year 2:** Mrs. Robbins will serve as a resource for participants, directly or indirectly. She will send out a monthly activity newsletter to participants.

## Conclusion

Through the eight-week Adolescent Allies program, we aim to reach at least 20 adolescent cancer survivors. These adolescents are at a vulnerable stage, of which emphasizing their individual importance and mental health is necessary. As they have battled illness and fought to live, they deserve an intervention aimed to improve the remainder of their lives. By addressing anxiety, depression, and quality of life, the Adolescent Allies program will minimize the harsh psychological impacts associated with cancer. As adolescents complete the program and others similar, they will develop behaviors, skills, and optimistic attitudes so that they may mature with excitement.

## References

- APA. (n.d.). *Anxiety*. American Psychological Association. <https://www.apa.org/topics/anxiety>
- American Psychological Association. (2022). *Measurement Based Care- Suggested Measures*. <https://www.apaservices.org>. <https://www.apaservices.org/practice/measurement-based-care/suggested-measures>
- American Psychological Association. (2017). *What is Cognitive Behavioral Therapy?* American Psychological Association. <https://www.apa.org/ptsd-guideline/patients-and-families/cognitive-behavioral>
- Anderson, C., Laubscher, S., & Burns, R. (1996). Validation of the Short Form 36 (SF-36) health survey questionnaire among stroke patients. *Stroke*, 27(10), 1812–1816. <https://doi.org/10.1161/01.str.27.10.1812>
- Bellizzi, K. M., Smith, A., Schmidt, S., Keegan, T. H. M., Zebrack, B., Lynch, C. F., Deapen, D., Shnorhavorian, M., Tompkins, B. J., Simon, M., Adolescent, a. t., Outcomes, Y. A. H., & Group, P. E. S. C. (2012). Positive and negative psychosocial impact of being diagnosed with cancer as an adolescent or young adult. *Cancer*, 118(20), 5155-5162. <https://doi.org/https://doi.org/10.1002/cncr.27512>
- Berg, C. J., Vanderpool, R. C., Getachew, B., Payne, J. B., Johnson, M. F., Sandridge, Y., Bierhoff, J., Le, L., Johnson, R., Weber, A., Patterson, A., Dorvil, S., & Mertens, A. (2020). A Hope-Based Intervention to Address Disrupted Goal Pursuits and Quality of Life Among Young Adult Cancer Survivors. *J Cancer Educ*, 35(6), 1158-1169. <https://doi.org/10.1007/s13187-019-01574-7>
- Bhatia, S., Tonorezos, E. S., & Landier, W. (2023). Clinical Care for People Who Survive Childhood Cancer: A Review. *JAMA*, 330(12), 1175-1186. <https://doi.org/10.1001/jama.2023.16875>
- Busetto, L., Wick, W. & Gumbinger, C. How to use and assess qualitative research methods. *Neurol. Res. Pract.* 2, 14 (2020). <https://doi.org/10.1186/s42466-020-00059-z>
- CDC. (2023). *Mental Health Conditions: Depression and Anxiety*. Centers for Disease Control and Prevention. <https://www.cdc.gov/tobacco/campaign/tips/diseases/depression-anxiety.html>
- Chand SP, Kuckel DP, Huecker MR. Cognitive Behavior Therapy. [Updated 2023 May 23]. In: StatPearls [Internet]. Treasure Island (FL): StatPearls Publishing; 2025 Jan-. Available from: <https://www.ncbi.nlm.nih.gov/books/NBK470241/>
- Corke, L., Langelier, D. M., Gupta, A. A., Capozza, S., Antonen, E., Trepanier, G., Avery, L., Lopez, C., Edwards, B., & Jones, J. M. (2025). A Pilot Study to Evaluate the Feasibility and Acceptability of a Tailored Multicomponent Rehabilitation Program for Adolescent and Young Adult (AYA) Cancer Survivors. *Cancers*, 17(7), 1066. <https://www.mdpi.com/2072-6694/17/7/1066>
- Division of Cancer Survivorship*. St. Jude Research. (n.d.). <https://www.stjude.org/research/departments/oncology/cancer-survivorship.html>

- Ford, J., Thomas, F., Byng, R., & McCabe, R. (2020). Use of the Patient Health Questionnaire (PHQ-9) in Practice: Interactions between patients and physicians. *Qualitative health research*, 30(13), 2146–2159. <https://doi.org/10.1177/1049732320924625>
- George, R., Eaton, G., Crotty, P., Heykoop, C., D'Agostino, N., Oberoi, S., Rash, J. A., & Garland, S. N. (2025). Factors Associated with Quality of Life (QoL) in Adolescents and Young Adults with Cancer. *Current oncology (Toronto, Ont.)*, 32(9), 475. <https://doi.org/10.3390/curroncol32090475>
- Horwood, M., Loades, M. E., Kosir, U., & Davis, C. (2024). Illness Perceptions, Fear of Cancer Recurrence, and Mental Health in Teenage and Young Adult Cancer Survivors. *Journal of Pediatric Hematology/Oncology Nursing*, 41(1), 44-55. <https://doi.org/10.1177/27527530231190378>
- Kotronoulas, G., Miguel, S., Dowling, M., Fernández-Ortega, P., Colomer-Lahiguera, S., Bağçivan, G., Pape, E., Drury, A., Semple, C., Dieperink, K. B., & Papadopoulou, C. (2023). *An overview of the fundamentals of data management, analysis, and interpretation in quantitative research. Seminars in Oncology Nursing*, 39(2), 151398. <https://doi.org/10.1016/j.soncn.2023.151398>
- Lee, A. R. Y. B., Low, C. E., Yau, C. E., Li, J., Ho, R., & Ho, C. S. H. (2023). Lifetime Burden of Psychological Symptoms, Disorders, and Suicide Due to Cancer in Childhood, Adolescent, and Young Adult Years: A Systematic Review and Meta-analysis. *JAMA Pediatrics*, 177(8), 790-799. <https://doi.org/10.1001/jamapediatrics.2023.2168>
- Mayo Clinic. (2025). *Anxiety Disorders*. Mayo Clinic. <https://www.mayoclinic.org/diseases-conditions/anxiety/symptoms-causes/syc-20350961>
- Mental Health Services. TN Department of Mental Health and Substance Abuse Services. (n.d.). <https://www.tn.gov/behavioral-health/mental-health-services.html>
- Miller, C. (2025). *How Anxiety Affects Teenagers*. Child Mind Institute. <https://childmind.org/article/signs-of-anxiety-in-teenagers/>
- Murray, H., Kerr, A., Warnock-Parkes, E., Wild, J., Grey, N., Clark, D. M., & Ehlers, A. (2022). What do others think? The why, when and how of using surveys in CBT. *Cognitive behaviour therapist*, 15, e42. <https://doi.org/10.1017/S1754470X22000393>
- National Cancer Institute. (n.d.). *Funding - grants*. HDRP - Funding - Currently Funded Grants. <https://maps.cancer.gov/overview/DCCPSGrants/grantlist.jsp?method=dynamic&program=hdrp&status=active&branch=orb&rfaNums=CA20-027>
- O'Donnell, N., Ellis, L., Morgan, J. E., Gregersen, P. A., Willard, V., Howell, D., & Phillips, B. (2025). Psychosocial Interventions to Improve Wellbeing in Teenage and Young Adult Post-Treatment Survivors of Childhood Cancer: A Systematic Review. *Psycho-oncology*, 34(2), e70081. <https://doi.org/10.1002/pon.70081>
- Photopoulos, P., Tsonos, C., Stavarakas, I., & Triantis, D. (2023). Remote and In-Person Learning: Utility Versus Social Experience. *SN computer science*, 4(2), 116. <https://doi.org/10.1007/s42979-022-01539-6>



Research Grant Programs. Children's Cancer Research Fund. (n.d.).  
<https://childrenscancer.org/awards/>

- Sansom-Daly, U. M., Wakefield, C. E., Bryant, R. A., Patterson, P., Anazodo, A., Butow, P., Sawyer, S. M., McGill, B. C., Evans, H. E., & Cohn, R. J. (2019). Feasibility, acceptability, and safety of the Recapture Life videoconferencing intervention for adolescent and young adult cancer survivors. *Psychooncology*, 28(2), 284-292.  
<https://doi.org/10.1002/pon.4938>
- Sansom-Daly, U. M., Wakefield, C. E., Ellis, S. J., McGill, B. C., Donoghoe, M. W., Butow, P., Bryant, R. A., Sawyer, S. M., Patterson, P., Anazodo, A., Plaster, M., Thompson, K., Holland, L., Osborn, M., Maguire, F., O'Dwyer, C., De Abreu Lourenco, R., Cohn, R. J., & Party, T. R. L. W. (2021). Online, Group-Based Psychological Support for Adolescent and Young Adult Cancer Survivors: Results from the Recapture Life Randomized Trial. *Cancers*, 13(10), 2460. <https://www.mdpi.com/2072-6694/13/10/2460>
- Savaş, E. H., Erkul, M., & Semerci, R. (2025). Not like it used to be, but a new life: Social reintegration of adolescents after childhood cancer treatment. *Journal of Pediatric Nursing*, 85, 135-142. <https://doi.org/doi:10.1016/j.pedn.2025.07.023>
- Singleton, A. C., Raeside, R., Partridge, S. R., Tat-Ko, J., Che Mun Sum, S., Hyun, K. K., Hayes, M., Chow, C. K., Thiagalingam, A., Maka, K., Sherman, K. A., Elder, E., & Redfern, J. (2022). Supporting breast cancer survivors via text messages: reach, acceptability, and utility of EMPOWER-SMS. *J Cancer Surviv*, 16(6), 1165-1175.  
<https://doi.org/10.1007/s11764-021-01106-7>
- Söchting, I., Lau, M., & Ogrodniczuk, J. (2017). Predicting Compliance in Group CBT Using the Group Therapy Questionnaire. *International Journal of Group Psychotherapy*, 68(2), 184–194. <https://doi.org/10.1080/00207284.2017.1371569>
- Steven G. Foundation. (n.d.). *Harry and Angie Giallourakis AYA Cancer Research Fund*. Steven G. Cancer Foundation. <https://stevengcancerfoundation.org/programs/research/>
- Thapar, A., Collishaw, S., Pine, D. S., & Thapar, A. K. (2012). Depression in adolescence. *Lancet*, 379(9820), 1056-1067. [https://doi.org/10.1016/s0140-6736\(11\)60871-4](https://doi.org/10.1016/s0140-6736(11)60871-4)
- van der Spek, N., Vos, J., van Uden-Kraan, C. F., Breitbart, W., Cuijpers, P., Holtmaat, K., Witte, B. I., Tollenaar, R., & Verdonck-de Leeuw, I. M. (2017). Efficacy of meaning-centered group psychotherapy for cancer survivors: a randomized controlled trial. *Psychol Med*, 47(11), 1990-2001. <https://doi.org/10.1017/s0033291717000447>
- Warner, E. L., Nam, G. E., Zhang, Y., McFadden, M., Wright, J., Spraker-Perlman, H., Kinney, A. Y., Oeffinger, K. C., & Kirchhoff, A. C. (2016). Health behaviors, quality of life, and psychosocial health among survivors of adolescent and young adult cancers. *Journal of cancer survivorship: research and practice*, 10(2), 280–290.  
<https://doi.org/10.1007/s11764-015-0474-7>
- Wurz, A., & Brunet, J. (2016). The Effects of Physical Activity on Health and Quality of Life in Adolescent Cancer Survivors: A Systematic Review. *JMIR Cancer*, 2(1), e6.  
<https://doi.org/10.2196/cancer.5431>