

Anxiety in Pediatric Cancer Patients Survivors

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Introduction

No child should have to fight for their life against a vicious disease like cancer, nor the less continue to fight throughout adulthood with the secondary effects the disease leaves, and endure the anxiety that it creates. Pediatric cancer is one of the leading causes of death among children. Each and every day around 47 children will be diagnosed with cancer and 1 in 5 of these diagnoses children will die within 5 years. With these sad and shocking statistics children who endure a cancer diagnosis are more likely to have long term or late onset side effects, in fact 3 out every 5 children diagnosed with cancer will suffer from these late effects. Because of these late effects and long-term side effects in children with cancer anxiety is a common psychological effect that occurs once diagnosed. For example, children with cancer will have anxiety regarding diagnoses and how it will affect their family and day to day life, anxiety surroundings scans and reoccurrence rates, as well as anxiety into survivorship as long and late term effects occur.

Problem and Interventions

The problem that is relevant among the literature presented on this topic states that anxiety is one the greatest psychological effects among cancer survivors. Anxiety is a psychological condition that warrants worry and emotional distress. When a patient, in this case an child with cancer, feels anxiety they begin to act out emotionally, cry, become angry, breathe faster, sweat, shake, etc.. In an article published by McDonnell et al. (2017), it states that post traumatic stress disorder is one of the most common forms of anxiety in pediatric patients. As their development has been altered by traumatic experiences in the hospitals receiving pokes and pricks, procedures, and toxic medications when they should be in school, playing, and socializing with friends they worry that these things will reoccur causing large amounts of anxiety. When

hard and complicated scenarios occur to pediatric patients these types of individuals have a harder time regulating emotions, problem solving, and coping with stressful behaviors (Greening 2007). Children have a hard time understanding the complexity of what is happening to them. They do not understand why doctors, nurses, and surgeons are approaching them and “hurting them”. They cannot understand the environment and feel frightened often with no explanation to why they are feeling the things that they are feeling. This causes immense anxiety and stress in these patients.

Being aware of the signs and symptoms for anxiety in pediatric cancer patients is very important. If these thoughts and feelings in children and adolescents are not addressed larger issues cannot arise. In many cases children are not able to express exactly what they are feeling. In an article by Kersun et al (2009) it states, “A depression and anxiety-screening program is feasible in the outpatient pediatric oncology setting. Rates of adolescent self-reported anxiety and depression are low, although oncologists perceived more patient distress. This is an area for future investigation” (Kersun et al., 2009). This article shows that many cases of post-traumatic stress and anxiety go unreported but that is most likely not the case. Many individuals without the proper education and care cannot understand the complexity of these symptoms and are often overlooked with the cancer diagnoses. This article shows that this is something that needs to be researched and analyzed more as the current study’s might represent discrepancies in real life scenarios. Distress also occurs during hospitalization for pediatric cancer patients. Hospitals are trying to implement different interventions to help distress and anxiety in pediatric patients. Child life, art therapy, music therapy, and even pet therapy are good ways to alleviate the anxiety in pediatric patients. In an article written by Urbanski (2012) it discusses that therapy intervention to alleviate anxiety such as pet therapy in pediatric cancer patients has proven to increase the

quality of life of these oncology patients. These forms of therapy have decreased pain, changed viral signs, provide the patients with distraction, decrease fear, increase socialization, increase pleasure, decrease emotional distress, and much more in pediatric oncology patients (Urbanski 2012). This article provided us with ways that anxiety can be addressed in these settings. Not only is pain a cause for fear in this population but being able to manage it in these patients is critical. Another article addresses the impact of art therapy and how it allows children to cope with abnormal circumstances. Art therapy is able to address the emotional and development needs of this given population who is under extreme stress (Council 1993). Art therapy is another intervention that can be used to address the stress in pediatric cancer patients as they endure things that are abnormal, by giving them the opportunity to do art, something that is developmentally appropriate, they can help cope. Addressing the anxiety and the root of concern can help improve the quality of life they are living and reduce the emotional distress they encounter. The problem being addressed in this literature is anxiety and how it correlated to pediatric cancer patients.

Developmental Impact

Encountering anxiety as a child undergoing cancer treatment is not short term, but instead a long-term occurrence that can affect them through adolescent and into adult hood as well impact families. Anxiety and distress during treatment to these individuals is significant but current research is stating the long-term effects the anxiety causes on the individual can be detrimental. For example, in an article by Trentacosta et al (2017), it states, Attention control plays an important role in children's immediate and longer-term responses to cancer-related medical procedures. Medical staff should consider individual differences in child temperament and

personality when considering the nature and extent of support to provide to pediatric cancer patients and their families". This article shows how attention to anxiety and how it is addressed during treatment will impact long term care. For example, if anxiety and distress goes unaddressed though medical procedure more long term factors to these things will occur and a medical trauma and phobias can be expected. If a child had trauma surrounding needle pokes, this can be something that is brought with them into adult hood. Because of the anxiety and emotional distress to what information they were given during cancer treatment they might have those feelings as adults when similar, less invasive, treatments occur. Education, surveillance, and screening can be helpful when analyzing the long term follow up of pediatric cancer survivors. In an article by Landier et al (2005), it states that many chronic or late occurring healthy problems to not occur until years after treatment, anxiety and distress included. Not educating or making aware of late term effects or secondary chronic conditions as a result to cancer treatment can cause significant distress in patients. With risk-based care, educating the patient about the accurate information surrounding the cancer diagnoses to family members and both child is very important (Landier et al., 2005). For example, educating parents of minors is important but the health care team must see the child's needs and make sure at any age they can understand what is happening to them. If a child is getting a medication that will make them severely ill. It might be important to explain to them that the medicine will make them feel icky. Without doing this a child might be blindsided and mistrust might be established between healthcare professionals and the patient.

There are many different psychiatric aspects of pediatric cancer that effect the child as well as the family long term. Cancer is the most common fatal disease of children and adolescence and those who do survive often have to pay the price for their cure as the after

effects of treatment are long (Apter 2003). Apter (2003), states, “The presence of long-lasting uncertainty about a possible recurrence of the disease or second malignancy together with recognition of some permanent cognitive and physical side effects of treatment make childhood cancer a potentially chronic condition experience actual or potential threats to future health; more than half have medical cognitive or psychological problems and use medical resources significantly”. As this article states the long-term effect of pediatric cancer are significant and something to review. Creating appropriate interventions and care is something extremely important. Pediatric cancer has only received 4% of national government funding since the 1980s and only 4 cancer fighting drugs have been formulated for pediatric use (Bitsko et al, 2015). This article demands that new follow-up guidelines be created to help this statistic as care is significantly impacted by these statistics.

Parents and families are also impacted by the anxiety and fear that is surrendered by a cancer diagnosis on pediatrics. PTSD rates are proven to be high in mothers of survivors of pediatric cancer (Manne et al., 2006). Comorbidity of anxiety and depressive episodes were also common among survivors. Although there were gaps in this article to the specific reasons why this might occur I think it is safe to say that the stress of spending an immense amount of time in the hospital, watching child fight for life against a harsh disease, receiving toxic chemotherapy that isn't always intended for pediatric use, watching child undergo procedures needle pricks and test, and watching child not get to be a child but instead deal with abnormal medical events can cause this type of stress. Parental bereavement is also something to address. In the article by Stoppelbein et al, (2006) it states, “Interestingly, parents of pediatric cancer survivors tend to be at a greater risk for PTSD symptoms than cancer survivors. Stuber et al. (1996) found that approximately one-third of parents of childhood cancer survivors fell within the severe range of

PTS symptoms on the Posttraumatic Stress Disorder Reaction Index (Stoppelbein et al, 2006).

Parents deal with emotional effects of watching their children in this unpredictably state. These unpredictable events elicit feelings of sires and helplessness from parents. Many parents feel like they are no help as they watch their children, and this goes into survivorship as they feel responsible for the sickness occurring the responsibility to prevent it from happening again.

Overall children who survive pediatric cancer experience secondary psychological issues such as residual depression, anxiety, and even effects on self esteem (Koocher 1980). The closer one is from out of treatment the more real it might feel to the individual and the family. The effects of pediatric cancer are not just the cancer treatment but also the long-term effects that occur into survivorship and into adulthood.

Recommendations

A large aspect of cancer survivorship that causes anxiety and other forms of distress is when patients go in for their annual checkups to received the scans that determine if the cancer has returned. Because of the limited treatment options for pediatric, when a child's cancer has relapsed or had returned, treatment options and care is often limited. Once in remission the thought of the cancer returning is always in the patients mind as the risk of that occurring is often high and never zero. Returning to the hospital to get lab work, MRIs, CT scans, PET scans and other tests often causes the patient emotional distress as it reminds them of the time spend during initial diagnoses. When this stress and anxiety occurs, In the cancer realm, it is often referred to as scanxiety.

Cancers scans are often associated with stress and negative thoughts and dealings that impact the patients quality of life. In a study that analyzed the effects of scanxiety it came to the

conclusion that a patient's goal is life long remission post cancer treatment. When the patient, in this case a child and parent or guardian, return to the hospitals to these scans that goal is often compromised (Winebrenner 2022). Survivors of pediatric cancer often associate the traumatic experience with a environment and specific individuals as their cognitive development does not let them understand it further given their age. For example, if a child underwent cancer treatment as a 5 year old and underwent treatment that lasted 2 years at age 10 when going to the pediatrician for a well child check the child might have a lot of anxiety. They might associate doctors, nurses, and medical settings with the traumatic time they underwent. They might become apprehensive, defiant, anxious, and exhibit signs of anxiety and distress.

Although scans of any type, in this case cancer scans, are used as precautionary measures many individuals still feel like these scans can and will turn their life's upside-down. Prescan and post scan assessments oftener cause high levels of scanxiety according to Bui et al (2021). In this study individuals who underwent scans were asked if anxiety was present and in 68% the answer was yes. This shows that regardless of the scan, in majority, there is some sort of anxiety present. Even when scans were noninvasive, scanxiety was still present. The article by Clusters et al (2021) summarizes the anxiety around cancer scans very well. This article states, "The scans themselves cause anxiety as patients feel frightened knowing someone is looking for progression. It is also hard to avoid seeking hidden meaning in the manner of the radiology staff wondering what they have seen on the scans. Despite the large numbers of scans which patients undergo, waiting for results gets harder with every scan because it is potentially even more life-changing/shortening than the last" (Cluster et al, 2021). The further into remission a child gets the more normal their life is looking, they are going back to school, getting involved in activities, and just being a kid. The further along into remission the more anxiety persists around the scans

the child and the family does not want to go back to that life. Although these scans are necessary it is important to address the anxiety surrounding them.

Because cancer scans are a huge part of follow up care in pediatric cancer survivors, it is important to find interventions to help these feelings and thoughts that surround this occurrence. Child life is a large aspect of these forms of interventions. Child life in regard to scanxiety can help educate, reassure, and distract the child. When receiving an IV for a contrast scan a child life specialist will be able to work with the patient to help lessen any worry or trauma that they may have. They can provide education with medical equipment and medical play dolls, and even provide forms of distraction. The child wants to understand what is happening and the child life team can help with that. A child life team can also provide the child with certain techniques to calm oneself. If a child is beginning to panic before a scan because they worry their cancer will come back and they will have to undergo treatment again a child life professional can help the child reflect on its cancer diagnosis, what it means to be in remission, how their treatment worked the first time around, how these scans are for precaution and something that is helpful for doctors to catch the bad cells, etc.. Recommendations of child life individuals help tremendously in these settings of scanxiety.

Conclusion

Overall the literature analyzed shows that there is a correlation between pediatric cancer and levels of anxiety. Pediatric cancer effect many children each and every year and their battle fighting this disease goes way beyond just initial treatment. Stressors and psychological distress trend all throughout remission. Not only does this anxiety and stress effect the pediatric patient it also effects the family unit as a whole. Interventions are useful to help reduce this anxiety but it

is something that the individual will have to work through as there is a lot of complexity to these types of situation. Overall children with cancer will have anxiety regarding diagnoses and how it will affect their family and day to day life, anxiety surrounding scans and recurrence rates, as well as anxiety into survivorship as long and late term effects occur. These literature pieces helped support this claim and gave us more insight to the research that is presented on this topic already.

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