Preparedness of School Psychologists to Provide Services for Students Diagnosed with Cancer

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PREPAREDNESS OF SCHOOL PSYCHOLOGISTS TO PROVIDE SERVICES FOR STUDENTS DIAGNOSED WITH CANCER

A thesis submitted to the Graduate College of Marshall University in partial fulfillment of the requirements for the degree of Education Specialist in School Psychology by Lauren McKenzie Blevins
Approved by Dr. Sandra Stroebel, Committee Chairperson Dr. R. Lanai Jennings Dr. Conrae Lucas-Adkins

Marshall University May 2018
We, the faculty supervising the work of Lauren McKenzie Blevins, affirm that the thesis, *Preparedness of School Psychologists to Provide Services for Students Diagnosed with Cancer*, meets the high academic standards for original scholarship and creative work established by the School Psychology Program and the College of Education. This work also conforms to the editorial standards of our discipline and the Graduate College of Marshall University. With our signatures, we approve the manuscript for publication.
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ABSTRACT

Children who survive cancer face many challenges when reintegrating into the school system. School psychologists are among the school support professionals who may aid in providing support and identifying appropriate interventions and accommodations for the academic and mental health needs of these students. This study identifies whether school psychologists in West Virginia perceive themselves to be adequately prepared to assist students who have survived cancer upon returning to school. A survey containing fourteen questions regarding the individual’s experience, training, and knowledge was distributed to school psychologists in attendance at the Fall 2016 West Virginia School Psychologists’ Association conference. Of the 59 West Virginia school psychologists who participated in the survey, only 4 reported having any training that specifically addressed students that had been diagnosed with cancer. Additionally, the number of years’ experience of the school psychologist positively predicted the amount of involvement ($F=9.412$, $p<.003$) and number of services provided ($F=5.764$, $p<.020$) to these students. Comfort in providing these services was highly correlated with perceived level of knowledge ($r=.580$). Additionally, higher levels of involvement of the school psychologist was positively correlated with level of training ($r=.384$) and comfort level ($r=.512$) for working with students diagnosed within the school environment.
CHAPTER 1

LITERATURE REVIEW

Cancer is defined by the National Cancer Institute (2015) as a genetic disease caused by uncontrollable division and spread of the body’s cells. This disease is one of the leading causes of death around the world. In 2018, cancer is expected to be the cause of death of more than 600,000 individuals within the United States (National Cancer Institute, 2018). Not only is this a common disease for adults, cancer affects children as well. Every day, approximately 43 children are diagnosed with cancer with six years of age being the average age at diagnosis. Children are increasingly diagnosed with cancer each year as incidence rates continue to rise, with Acute Lymphoblastic Leukemia (ALL), brain and central nervous system, and Hodgkin Disease accounting for almost half of all childhood diagnoses (CureSearch, 2016). Current estimates given by the American Cancer Society (n.d.) expected that there were approximately 10,270 new cases of cancer diagnosed in children between 0 and 14 years of age in 2017 alone. Fortunately, we can expect the vast majority of these children to survive, with cancer being fatal for approximately 1,190 children in 2017 (American Cancer Society, n.d.).

Due to medical and technological advances, children are able to spend less time receiving inpatient treatment and return to the regularity of childhood at a faster rate (Harris, 2009). One difficult, yet important step for children attempting to return to leading healthy and fulfilling lives is reintegrating into their school communities after having been absent due to treatment. One school faculty member in particular that has the ability to support the reintegration process is the school psychologist. The National Association of School Psychologists (NASP) (2010) states that school psychologists are to provide services in order to help students succeed academically, socially, behaviorally, and emotionally. With a growing number of children
surviving cancer each year and suffering from late effects, long term effects of cancer and its treatment, it has never been more imperative to ensure school psychologists are trained and prepared to provide these students with the services they need (CureSearch, 2016). This current study surveyed school psychologists in West Virginia to assess their knowledge and perceived readiness for this task.

Deleterious Effects of Cancer

**Academic Deficits.** Reintegration into the school system is often a difficult and complicated step for children suffering from chronic illness, including cancer. More often than not, while their illness may be treated or resolved, long lasting effects can be seen that may have a negative impact on the child’s reintegration into school (Canter & Roberts, 2012). Cognitive deficits that diminish quality of life have been shown to be a common effect of medical treatment, such as chemotherapy, lasting for some individuals up to ten years (Tannock, Ahles, Ganz, & Van Dam, 2004). These deficits can lead to many effects on one’s academic performance including memory difficulties, variations in rate of attention, insufficient planning and organization, difficulty accurately writing down presented visual information, difficulty calculating answers, poor reading comprehension, and poor social skills (Wiener et al., 2015).

Another possible explanation for these students’ decline in academic performance is absenteeism. The average length of treatment for childhood cancer is around 12.5 months. The length of treatment can widely vary from child to child with some receiving treatment for less than a month and others for up to 72.5 months (Stam, Grootenhuis, & Last, 2005). Typically, childhood cancer survivors, as well as their siblings, tend to miss more school than their peers (French et al., 2013). On average, students diagnosed with cancer miss about 11 days of school, not counting days missed for hospital stays. It appears as if the student’s perception of their
physical well-being is correlated to the number of days that student misses (French et al., 2013). Compared to the general population, only around 6% or less miss 11 or more days of school. Since school attendance is related to academic performance and cancer survivors are already at risk for learning disabilities, getting these children to school seems to be the first step to a successful reintegration (French et al., 2013).

Tutoring is one popular intervention used when students must regularly miss school (Gorin & McAuliffe, 2009). Childhood cancer survivors also tend to be placed in special education programs due to cognitive difficulties that have resulted from cancer and treatments. However, despite these children often requiring interventions and special education upon returning to school, Gorin and McAuliffe (2009) found that long-term supports are not in place for the majority of these children.

**Social/Emotional Difficulties.** Not only is it important to consider the academic needs of students that have received a cancer diagnosis, it is equally imperative to consider the social and emotional needs as well. Immediately following diagnosis, it is common for children to display higher levels of anxiety, become more dependent on others, and have difficulty sleeping in comparison to their healthy peers (Sawyer, Antoniou, Toogood, Rice, & Baghurst, 2000). Often times, survivors of childhood cancer experience more behavioral problems and poor social skills; however, these issues typically diminish over time. Various factors that contribute to successful psychosocial adjustment include younger diagnosis age, shorter periods of time off treatment, absence of irradiation therapy, and minimal medical late effects. In addition to these factors, the decline of behavioral and social issues as these children age can be partially attributed to utilization of appropriate coping strategies (Stam, Grootenhuis & Last, 2001).
Children who have survived cancer are also at an increased risk of a decline in peer and intimate relationships, decline in participation in extracurricular activities, as well as decreased planning for the future, such as potential occupations (Lähteenmäki, Huostila, Hinkka, & Salmi, 2002). These children are shown to have fewer friends and participate in social and school-based activities less frequently than their healthy peers. Additionally, when the child experiences late effects of cancer, they are more likely to have poor self-concept and exhibit increased signs of depression (Stam, et al., 2001). When within the school environment, approximately 31% of children diagnosed with cancer report being bullied by their peers. The majority of these children state that the bullying is related to their illness or appearance (Lähteenmäki et al. 2002).

Helms et al. (2014) states that when classmates have a better understanding of cancer they are less fearful and more receptive towards other students who have had cancer, thus resulting in an increase in positive peer interactions. Supportive friendships are an essential component of the reintegration process with most children depending on these friendships for stability. In promoting a successful transition back to school, recommendations include helping the child determine ways for them to keep in contact with their friends along with assisting them in figuring out how they would like to talk with their friends about their cancer experience (Choquette, Rennick & Lee, 2015).

Physical Challenges. Cancer has the potential to impact many physical aspects of a child’s life. The American Cancer Society (2018) list of possible physical side effects include: fatigue, fertility/sexual problems, hair loss, hiccups, leg cramps, mouth problems, generalized pain, shortness of breath, swelling, weakness, sweating, and skin problems. Ness et al. (2005) report that approximately 20% of all cancer survivors experience limitations in their physical abilities with children who were diagnosed with bone and brain cancer enduring the highest
levels of physical problems. In addition to this, those who receive radiation are at an increased risk of experiencing physical limitations compared to those who only receive surgery. Physical problems can lead to difficulty completing activities such as shopping, cleaning, self-care, and attending work or school (Ness et al., 2005).

Neurological impairments, such as paralysis, seizures, balance issues, tremors, weakness in arms/legs, and prolonged localized pain, are experienced most frequently with approximately 43% of childhood cancer survivors experiencing at least one neurological symptom. Prolonged pain is experienced the most of all the neurological symptoms. In addition to neurological problems, other commonly reported symptoms include hypothyroidism, chest pain, and chronic cough. Other physical symptoms may include blindness, deafness, angina, arrhythmia, cataracts, osteoporosis, diabetes, and growth hormone insufficiency (Ness et al., 2005). Recommendations given by Cancer Council Australia (2016) for dealing with physical effects of cancer include engaging in daily exercise, limiting naps to approximately 30 minutes, use of medications that specifically target mild, moderate, or severe levels of pain, physiotherapy, special diets, and use of relaxation techniques.

**Changed Expectations.** It is important to take into consideration how a child perceives their social life as well as academic performance when determining an appropriate intervention. Every cancer survivor has a unique perception of how cancer has impacted his or her life. When looking at the impact cancer has on one’s education, evaluating the perceptions of the individual can provide valuable information for school faculty members. Adults who suffered from cancer in their childhood often report that cancer impacted their choice of career and education. Many adults state that they attended school during their treatment, which often resulted in having to repeat the school year or leave school early to obtain a job. Adults claim that their parents were
aware of their absenteeism but weren’t troubled by it because it appeared that they were more concerned that their child was alive rather than attending or doing well in school (Dumas et al., 2015).

Winterling et al. (2015) explains that child cancer survivors and their peers have a similar perspective of school; however, cancer survivors are found to be more satisfied with academic performance and less satisfied with social experiences when compared to their peers. Thus, further illustrating the need for social interventions for these students (Winterling et al., 2015). Not only is it useful to know how these students’ perceptions compare with their peers, it is also useful to compare their perceptions with those of their parents. Boonen and Petry (2011) claim that parents of chronically ill children often feel that their child has difficulty keeping up with their schoolwork. Alternatively, children less frequently feel that their classes in school are too difficult, with math typically being the hardest subject for them (Boonen & Petry, 2011).

Available School Interventions

**Section 504 Plans.** The lasting effects of one’s medical treatment may qualify as a disability for the child. Herrmann, Thurber, Miles and Gilbert (2011) explain that for students who meet this qualification, a Section 504 Plan needs to be considered. This would allow the student access to specific accommodations in order to promote equal access to the curriculum.

The West Virginia Department of Education (2014) explain that individuals with disabilities are not to be excluded from participating in programs or be discriminated against in any way due to their disability. In order to be eligible for a Section 504 plan in West Virginia, the student must have a mental or physical impairment that substantially limits a major life activity, such as walking or hearing. If a student meets this criterion, a plan is then constructed by a team in order to effectively educate the student with their non-disabled peers.
Accommodations may be included that modify the regular classroom, such as shortened assignments, in order to provide the student with equal access to learning. This plan should continue to be reviewed and updated annually until it is determined that the plan is no longer needed (West Virginia Department of Education, 2014).

The West Virginia Department of Education (2014) lists specific examples of accommodations that may be useful for a student diagnosed with cancer. Possible accommodations include: accommodation for absences or home/hospital instruction, consideration of immunocompromised status, scheduled breaks, sending a teacher or tutor to the hospital, adjustment of expected activity level in classes, assistive technology, dietary accommodations, shortened school day, taped lessons, counseling, and development of a health care plan.

**Individualized Education Plans.** In more severe cases, the effects of cancer and its treatment may leave the child unable to learn the general curriculum and require a modified curriculum. In this case, a Section 504 Plan may be insufficient as it does not lend to specialized instruction and special education services under the Individuals with Disabilities Education Improvement Act (United States Department of Education, 2006) may be more appropriate. The student should then be given a comprehensive evaluation to aide in determining special education eligibility. By qualifying for special education services, an individualized education plan (IEP) will be constructed describing exactly how the school plans to meet the child’s educational needs (Herrmann et al., 2011).

In order to qualify for special education in West Virginia, a student must meet the criteria for an exceptionality, experience adverse effects on their academic performance, and need specialized instruction (West Virginia Board of Education, 2017). An IEP is a document used as
a way for parents and school faculty members to collaborate in order to determine the specific needs of the student and develop a plan for the special education. The components of the IEP include determining the grade level expectations for the student, concluding what the student’s current skills are in comparison to where they should be, and creating reasonable goals for the student to work toward over the school year (West Virginia Department of Education, 2017).

Children diagnosed with cancer report a need for special education services for various reasons including: increased absences, low test scores, concentration and learning problems, and behavioral or emotional issues (Mitby et al., 2003). In comparison to their healthy peers, children who suffer from chronic illness are less likely to graduate high school as well as less likely to go on to obtain jobs (Maslow, Haydon, Ford, & Halpern, 2011) Similarly, when compared to their siblings, those who have received a diagnosis of cancer graduate high school at a significantly lower rate. Although, those who receive special education services tend to have higher graduation rates that are more similar to their siblings (Robison et al., 2005). Thus, those who have been diagnosed and treated for cancer should be continually monitored and evaluated in order to provide interventions as early as possible. Providing these students with the necessary interventions or specialized education as soon as problems arise will lead to higher chances for academic success (Mitby et al., 2003).

**Homebound Instruction.** Another option for students who have received a diagnosis of cancer is to receive instruction within the home rather than have the child return to the school environment. Oftentimes, these students will be placed on homebound instruction due to having a compromised immune system or due to concerns regarding the child’s physical appearance or abilities. Usually, the homebound teacher works as a liaison between the student’s home and the
school, where assignments are graded by a teacher within the school, not the homebound teacher (Searle, Askins, & Bleyer, 2003).

To be eligible for homebound instruction in West Virginia, the West Virginia Board of Education (2016) states that a licensed health care provider must provide a written statement indicating that an injury or illness will lead to the child being restricted to the home setting for three consecutive weeks or more. The homebound teacher is then responsible for instruction related to content standards for core courses (West Virginia Board of Education, 2016).

In most cases, homebound instruction does not prove to be beneficial for these students. Many report problems involving scheduling issues, inconsistent and inadequate curriculum, and poor communication with teachers. Even in cases where the student feels successful academically, they do not typically attribute these successes to their homebound instruction. Homebound also leads to an increase of social and emotional problems, with children reporting increased discomfort around their peers along with more emotional fears and loneliness (Bessell, 2001). Searle et al. (2003) recommend homebound instruction only be used as a last resort for short periods of time when transitioning between regular education and hospital education settings.

**Key Personnel to Facilitate Re-Entry**

**School Faculty’s Role.** In order to determine which path will be most beneficial for the student, school faculty must be knowledgeable and prepared to address the specific issues that children who have received a cancer diagnosis might encounter. School faculty members that should be involved when making these determinations include teachers, principals, counselors, school psychologists, and school nurses (Prevatt, Heffer, & Lowe, 2000). Unfortunately, Nabors et al. (2008) state that many teachers do not feel confident or knowledgeable when working with
students with chronic illnesses. While special education teachers may be more knowledgeable and prepared to work with students with other various disabilities, special and general education teachers tend to have little to no confidence when working with chronically ill students (Nabors, Little, Atkin-Little, & Iobst, 2008).

In order to better prepare school faculty, collaboration can serve as a useful tool. Wiener et al. (2015) suggest that medical and treatment information should be provided to the school in order for preparations to take place before the child returns. Teachers need to be made aware of possible learning or social impairments the student may have. Open communication is essential between all involved staff members in order to better prepare teachers and facilitate continuous monitoring of the student from year-to-year for late effects of their medical treatment (Wiener et al., 2015).

**Role of the School Psychologist.** School psychologists have the opportunity to play a crucial role in ensuring a successful reintegration for students diagnosed with cancer. NASP (2010) states that school psychologists are to provide both direct and indirect services for not only children, but for the child’s family and school as well. For the student, these services include facilitation of interventions and instructional support that promotes development of academic skills as well as mental health services, such as individual and group counseling, in order to enhance social and life skills. Other services provided by school psychologists include promoting school-wide practices that facilitate learning, consulting and providing materials to teachers, providing class-wide lessons regarding various psychological or mental health issues, employing preventative and responsive services, and promoting collaboration between the family and school (National Association of School Psychologists, 2010).
Bradley-Klug and Sundman (2010b) explain that it is the responsibility of the school psychologist to be knowledgeable on cancer treatments and any possible late effects the child may experience. School psychologists are urged to employ data-based decision making to guide re-entry into the school system. The student’s knowledge and skills should be thoroughly assessed and paired with a level of instruction that is appropriate. School psychologists may need to complete comprehensive psychoeducational evaluations along with various repeated assessments in order to monitor student progress and determine the need for continued services throughout the child’s time in school (Bradley-Klug & Sundman, 2010b). It is recommended that cognitive abilities, academic achievement, attention, processing speed, visual perceptual skills, executive function, and memory be assessed in order to aid in appropriate educational planning. School psychologists should choose the appropriate batteries and provide appropriate accommodations for potential late effects, such as hearing loss (Nathan et al., 2007).

One suggestion for school psychologists is to keep a continuous line of communication with the student’s pediatrician (Bradley-Klug & Sundman, 2010a). Most pediatricians rarely communicate with their patients’ schools and do not play a specific role within the educational environment. Only about 8.5% of pediatricians report the school psychologist to be their main point of contact. Most pediatricians do not perceive the role of the school psychologist to include pediatric health issues or pharmacology, especially those who have not previously collaborated with a school psychologist. Approximately 50% of pediatricians report school faculty as unable to be reached as a reason for not collaborating, while 20% list not knowing who to collaborate with as a reason (Bradley-Klug & Sundman, 2010a).

Sheridan et al. (2009) states that one possible method for promoting collaboration between school psychologists and the student’s pediatrician and family is through conjoint
behavioral consultation (CBC). In this model, weekly meetings are held to identify the needs of the student, analyze these needs, develop a plan for implementation, and evaluate the effectiveness of the intervention. These meetings consist of medical and school personnel as well as the student’s family. Parents and teachers have reported high levels of acceptability and satisfaction with the CBC model (Sheridan et al., 2009).

Another possible model is the eco-triadic model of educational consultation. Harris (2009) explains in order for reintegration to be successful for the student, there must be a coordinated effort by all those who are involved. This model emphasizes both direct and indirect services that may prove beneficial for the student by integrating the three ecosystems (hospital, home, and school) surrounding the student. Through this model, the school psychologist develops a relationship with all three ecosystems as well as the child. Joint decision-making and collaboration is encouraged by the school psychologist in order to create a support network (Harris, 2009).

In order to competently provide services for students, including those diagnosed with cancer, the school psychologist must have received adequate training. Barraclough and Machek (2010) report that the majority of school psychologists are not receiving training on many less-common chronic illnesses, such as cancer. While some school psychologists may have received training related to students with chronic illnesses, this training is usually limited to the most common conditions. School psychologists feel they need more thorough training regarding side effects of medications, knowledge pertaining to long-term prognoses, and methods for educating faculty and students. Little and Atkin-Little (2013) suggest that the first step in erasing the training deficit is through incorporating the appropriate curriculum and experiences into school psychology graduate programs and continuing education courses. The curriculum of these
graduate programs should include in-depth review of appropriate interventions, such as Trauma-Focused Cognitive Behavior Therapy, for students that have suffered from trauma (Little & Atkin-Little, 2013).

**The Current Study**

Today’s medical advancements have allowed for an increasing number of children to survive cancer and return to the regular school environment (Canter & Roberts, 2012). It has become increasingly important that school psychologists are knowledgeable on the best practices for working with these students in order to be able to provide them the proper education. This study examines the training practicing school psychologists in the state of West Virginia have received related to working with cancer surviving students as well as the role they currently play and whether or not they feel adequately prepared to provide these students the services they need. Research questions:

1) How prepared do school psychologists rate themselves for being able to assist pediatric cancer patients who are returning to school?

2) What factors contribute to the school psychologist’s level of involvement and comfort level for providing services for pediatric cancer patients re-entering school?

3) What are school psychologists currently doing to assist pediatric cancer patients who are returning to school?

4) What additional training do school psychologists report that they need in order to better assist pediatric cancer patients upon school re-entry?
CHAPTER 2

METHOD

Participants

A total of 63 school psychologists were in attendance of the Fall 2016 West Virginia School Psychologists’ Association Conference. Attendees included school psychologists from 29 of 55 county school districts in West Virginia and 1 county in Ohio. Additionally, two attendees were retired, one was self-employed, one contracted, and one was employed through the West Virginia Department of Education. Attendees included intern, specialist, and doctoral level school psychologists. A total of 59 surveys were completed and returned over a one day period. Of the 59 surveys returned, 11.9% (7) of the participants indicated that they were interns, 20.3% (12) reported having worked as a school psychologist for 1 to 3 years, 37.3% (22) participants had worked for 4 to 9 years, 16.9% (10) had worked for 10 to 14 years, and 13.6% (8) had worked for 15 years or more.

Materials

The survey consisted of 2 detachable front cover pages followed by 14 questions regarding the participant’s perceptions and experience (see Appendix B). Information was given on the first front cover page explaining the individual’s right to confidentiality, clarifying that participation is voluntary, and informed consent. On the second page, opportunity for the participant to indicate their name and email address was provided along with directions explaining how the participant could turn this page in separately for a chance to with a $25 Amazon gift card.

Questions on the survey included: one question asking number of years’ experience working as a school psychologist, three questions regarding specific training the participant had
received, one question assessing the participant’s level of comfort for providing services to students with cancer, three questions asking participants to rate their level of knowledge regarding specific issues related to childhood cancer, two questions regarding level of involvement for working with students that have been diagnosed with cancer, and two items assessing the need for future training. In addition to these questions, two checklists were included for participants to indicate which services they had provided as school psychologists, as well as which areas they felt there was a need for additional training. The survey is located in the Appendix.

**Procedure**

Prior to the conduction of this study, approval was granted by Marshall University’s Institutional Review Board (IRB). The investigator distributed a survey to each available seat within the conference room of the Fall 2016 West Virginia School Psychologists’ Association Conference prior to participants’ arrival. Once the conference began, an announcement was made informing attendees that there was an opportunity to win a $25 Amazon gift card by completing the survey found at their seat. School psychologists filled out the survey on site and returned the second cover page and the remaining questions to separate submission boxes on the same day.

Data obtained from the survey were analyzed by the investigator using various descriptives, including frequency, as well as using regression analysis in order to determine the strength of the relationship between the number of years’ experience working as a school psychologist and responses on the other questions within the survey. Pearson’s correlation was used in order to determine whether any of the survey data from any one item contained significant correlations with any of the other items. Weak correlations were defined as $r=\pm 0.1$ to
±0.3, moderate correlations were $r=±0.3$ to $±0.5$, and strong correlations were $r=±0.5$ to $±1.0$.

Basic frequencies of responses were also analyzed within the data.
CHAPTER 3

RESULTS

**Research Question 1**: How prepared do School Psychologists rate themselves for being able to assist pediatric cancer patients who are returning to school?

In response to how many training sessions or courses the participant had that specifically addressed students with cancer, only three (5.1%) school psychologists indicate that they have received continuing education training while only one (1.7%) indicates having taken any graduate courses. A total of 24 (40.7%) school psychologists disagree, while 18 (30.5%) strongly disagree, with a statement stating that their current level of training adequately prepared them to work with this population of students. When asked about current level of knowledge, the majority of school psychologists rate themselves a two on a five-point scale, with one being not at all knowledgeable and five being extremely knowledgeable, regarding both immediate effects (44.1%) and possible late effects of cancer and its treatment on children (42.4%), as well as knowledge of best practices and specific interventions pertaining to these students (47.5%).

**Research Question 2**: What factors contribute to the School Psychologist’s level of involvement and comfort level for providing services for pediatric cancer patients re-entering school?

When asked about how often the participant was involved in cases pertaining to students with a cancer diagnosis, 42% of school psychologists indicate that they are never involved in these cases. Furthermore, 40.7% of school psychologists report that they are the least involved in comparison to other personnel working with these students. Years of experience predict how often school psychologists are involved (F=9.412 p<.003) and the number of services they provide (F=5.764, p<.020). School psychologists are more involved if current training (r=.384)
and comfort \( (r=.512) \) are rated high. When asked about level of comfort in providing services specifically for students that have received a cancer diagnosis, 40.0\% of school psychologists rate themselves a three on a five-point-scale, indicating that they are somewhat comfortable. Comfort in providing services is moderately correlated with immediate knowledge \( (r=.430) \), and strongly correlated with late effects knowledge \( (r=.551) \) and knowledge of best practices \( (r=.580) \).

**Research Question 3:** What are school psychologists currently doing to assist pediatric cancer patients who are returning to school?

When asked about what services the school psychologist had experience providing for this population of students, 27 (45.8\%) school psychologists indicate they have not provided any of the services from the given list. Among those who have provided services, the top four activities that school psychologists report doing to assist students that have received a diagnosis of cancer are coordinate 504 plans \( (n=20) \), assess the instructional level \( (n=16) \), develop a school re-entry plan \( (n=10) \), and work with school personnel to help them understand chronic illness \( (n=8) \).

**Research Question 4:** What additional training do School Psychologists report that they need in order to better assist pediatric cancer patients upon school re-entry?

The majority (66.1\%) of school psychologists agree that school psychology graduate programs need to devote more training to childhood cancer and 55.9\% of school psychologists strongly agree that the West Virginia School Psychologists’ Association should provide more trainings in this area. The top six areas school psychologists report they need additional training in are: long-term effects of cancer and cancer treatments \( (n=48) \), immediate effects of cancer and cancer treatments \( (n=42) \), development of re-entry plans \( (n=38) \), development of transition plans
(n=38), coordination of 504 plans (n=34), and coordination of other health impairment plans (n=31).
CHAPTER 4

DISCUSSION

This study was conducted using a paper survey distributed to all school psychologists in attendance at the West Virginia School Psychologists Association 2016 Fall Conference. This survey collected data concerning how many years of experience the participant had working as a school psychologist, training they had received that specifically addressed childhood cancer, the participants’ comfort providing services to students diagnosed with cancer, and level of knowledge and involvement pertaining to this population of students. Additionally, specific services provided to those diagnosed with cancer and need for future training were also assessed.

The majority of West Virginia school psychologists report that they have received no training whatsoever regarding childhood cancer and do not feel adequately prepared to work with this population of students. Additionally, they report low levels of knowledge pertaining to best practices for working with these students as well as low levels of knowledge related to the effects of cancer and its treatment.

When working with these students, the more years experience the school psychologist has, the more frequently they are involved and the more services they provide for these students. However, most school psychologists in West Virginia are involved in these cases at all. School psychologists feel somewhat comfortable providing services for these students. The more comfortable the school psychologist is working with children diagnosed with cancer and the more training they have received, the more frequently they are involved in these cases. School psychologists who feel more knowledgeable regarding the immediate and late effects of cancer and its treatment, as well as best practices, have higher levels of comfort. Little and Atkin-Little (2013) state that the first step in erasing the training deficit, and thus increasing the
level of comfort for school psychologists working with this population, is through incorporating more experiences into school psychology graduate courses and continuing education trainings regarding interventions for children who have suffered from trauma.

The services most commonly provided by school psychologists for these students include coordination of 504 plans, assessing instructional level, developing a reentry plan, and helping school personnel gain a better understanding of chronic illness. School psychologists feel that graduate programs and the West Virginia School Psychologists’ Association should devote more training to childhood cancer, specifically in the following areas: long term effects of cancer and its treatment, immediate effects of cancer and its treatment, development of reentry plans, development of transition plans, coordination of 504 plans, and coordination of other health impairment plans.

In a study conducted by Barraclough and Machek (2010) looking at school psychologists’ experience, amount of training, and need for future training regarding chronic illness, about 20 percent of school psychologists that are members of the National Association of School Psychologists (NASP) report receiving training regarding cancer in graduate school and workplace trainings. This percentage is much higher than what is reported by school psychologists in West Virginia, with only 5.1% having received training in graduate school and 1.7% having received continuing education training. This indicates that school psychologists in West Virginia may not be receiving as much training in this area when compared to school psychologists across the United States. Barraclough and Machek (2010) report around 72 percent of NASP members indicate a need for future training about chronic illnesses. In West Virginia, 76.4% of school psychologists agree or strongly agree that school psychology graduate programs should devote more training to childhood cancer while 58.9% agree that the West Virginia
School Psychologists’ Association should provide more training in this area. Additionally, NASP members report that they often work with students that they do not feel comfortable providing services for given their level of training (Barraclough & Machek, 2010).

The study by Barraclough and Machek (2010) also assess what services school psychologists are providing for students with chronic illnesses. Most school psychologists are involved with assessing instructional level (80.4%), educating school personnel of various illnesses (71.0%), discussing side effects of medications (68.7%), coordinating other health impairment plans (66.0%), coordinating 504 plans (65.8%), talking about medication side effects with families (55.8%), and coordinating transition plans (54.7%) (Barraclough & Machek, 2010). When compared to NASP members, school psychologists in West Virginia are providing services less frequently. The top four services provided by school psychologists in West Virginia for students with cancer include 33.9% help to coordinate 504 plans, 27.1% assess the instructional level, 16.9% help to develop a school re-entry plan, and 13.6% work with personnel to educate them on chronic illness.

Barraclough and Machek (2010) further found that most school psychologists feel the need for additional training regarding medication side effects and long-term prognosis, whereas in West Virginia, school psychologists feel the need for more training regarding long term effects of cancer, immediate effects of cancer, and in development of various types of plans for the student.

In future research, it would be beneficial to survey school psychologists from all over the country rather than just West Virginia. This would provide more external validity to the study and allow the researcher to compare results from each state or region to one another. Some regions may have more school psychologists who are trained and confident working with these
students than others. Research could then be done to determine what factors play a part in contributing to these differences in training and how graduate programs across the country are training school psychology candidates to feel prepared to provide adequate services for these students. Additionally, school psychologists need to be trained using the interventions that have been shown to be successful.

Future research should also include looking into the effectiveness of specific interventions that school psychologists can implement for students who have survived cancer and what special considerations might apply. This would not only provide graduate programs the information as to what they should be focusing on within their curriculum but also ensure that evidence-based practices are being used with these children. Another direction for future research would be to conduct a more quantitative study through measuring differences based on implementation of intervention. This study could include selecting school psychologists and teaching them new data-based interventions and best practices and then comparing the rates of success and approval by both the school psychologist and the student along with the student’s parents before and after the training. Additionally, it may be beneficial in the future for school psychologists’ perceived readiness to be assessed for providing support for siblings of those who suffer from chronic illness. This would allow us to determine whether school psychologists are prepared and knowledgeable on the possible academic and mental health implications that accompany being the sibling of a chronically ill individual.

Several limitations should be considered regarding this study. One limitation includes the fact that all data was derived from self-report responses. Participants may not be able to accurately recall what classes they took in graduate school and whether they covered working with students with cancer. Another possible limitation is the face value of the study. Participants
could easily look at the survey and know what the study was measuring and possibly change their responses in order to make themselves appear more or less competent than they actually were. Other limitations include that this study uses a relatively small convenience sample consisting of only school psychologists who attended the Fall 2016 West Virginia School Psychologists’ Association conference and not all school psychologists in West Virginia. It is likely that the majority of the participants attended the same graduate program due to only one school psychologist graduate program existing within the state of West Virginia.

School psychologists play a vital role in the school system by ensuring that each student has access to the services that they need. Students who have survived cancer often have very specific needs when they are being reintegrated into the school system and at times many years after. As we start to see more of these students coming back to school, it needs to be ensured that school psychologists are competent in this area and prepared to work with these children and their families to help them towards a successful future.
REFERENCES


Improvement Act. Office of Special Education and Rehabilitative Services.


West Virginia Board of Education. (2017). *Policy 2419: Regulations for the education of students with exceptionalities*.

West Virginia Department of Education. (2014). *The IEP & section 504: Guidance for West Virginia schools and districts*.


APPENDIX A: OFFICE OF RESEARCH INTEGRITY APPROVAL LETTER

October 17, 2016

Sandra Stroebel, Ph.D
School Psychology, MUGC

RE: IRBNet ID# 916296-1
At: Marshall University Institutional Review Board #2 (Social/Behavioral)

Dear Dr. Stroebel:

Protocol Title: [916296-1] Best practices for school psychologists caring for pediatric oncology student's social and emotional needs when they return to school.

Expiration Date: October 17, 2017
Site Location: MUGC
Submission Type: New Project APPROVED
Review Type: Exempt Review

In accordance with 45 CFR 46.101(b)(2), the above study and informed consent were granted Exempt approval today by the Marshall University Institutional Review Board #2 (Social/Behavioral) Designee for the period of 12 months. The approval will expire October 17, 2017. A continuing review request for this study must be submitted no later than 30 days prior to the expiration date.

This study is for students Lauren Blevins and Kayla Fletcher.

If you have any questions, please contact the Marshall University Institutional Review Board #2 (Social/Behavioral) Coordinator Bruce Day, ThD, CIP at 304-696-4303 or day50@marshall.edu. Please include your study title and reference number in all correspondence with this office.
APPENDIX B: SURVEY

Anonymous Survey Consent

You are invited to participate in a research project entitled “Preparedness of School Psychologists for Assisting Students Diagnosed with Cancer” designed to analyze whether school psychologists in West Virginia feel that they adequately trained to work with students who have been diagnosed with cancer in addition to their current level of knowledge and involvement pertaining to these students. The study is being conducted by Dr. Sandra Stroebel from Marshall University. This research is being conducted as part of the program evaluation for Lauren Blevins.

This survey is comprised of fourteen questions that will take approximately five minutes to complete. Your replies will be anonymous, so do not put your name anywhere on the form. There are no known risks involved with this study. Participation is completely voluntary and there will be no penalty or loss of benefits if you choose to not participate in this research study or to withdraw. If you choose not to participate you may either return the blank survey or you may discard it. You may choose to not answer any question by simply leaving it blank. Returning the survey in the drop box at the back of the room indicates your consent for use of the answers you supply. If you have any questions about the study you may contact Dr. Sandra Stroebel at (304) 746-2032, Lauren Blevins at (304) 890-9079.

If you have any questions concerning your rights as a research participant you may contact the Marshall University Office of Research Integrity at (304) 696-4303.

By completing this survey and returning it you are also confirming that you are 21 years of age or older.

Please keep this page for your records.
Name: ____________________________________________________

Email: ____________________________________________________

You have the chance to win a $25 Amazon gift card!

Please detach this page and place it separately in the drawing box at the back of the room. Survey participation is not required to be eligible to win.
Survey

1. Number of years working as a school psychologist
   a. intern
   b. 1-3
   c. 4-9
   d. 10-14
   e. 15+

2. How many graduate training courses did you have that specifically addressed students who have been diagnosed with cancer?

   Total number of courses: ______________________________

3. How many continuing education training sessions have you attended specifically addressing students who have been diagnosed with cancer?

   Total number of sessions: ______________________________

4. Your current level of training devoted to cancer has adequately prepared you to assist children with cancer and its associated complications.

   1 – Strongly Disagree
   2 – Disagree
   3 – Neutral
   4 – Agree
   5 – Strongly Agree

5. Rate your level of comfort for evaluating and providing services specifically for students recovering from or dealing with cancer.

   1 – Not at all comfortable
   2
   3 – Somewhat comfortable
6. Rate your current level of knowledge regarding immediate effects of cancer and its treatment on children.

1 – Not at all knowledgeable
2
3 – Somewhat knowledgeable
4
5 – Extremely knowledgeable

7. Rate your current level of knowledge regarding possible late effects of cancer and its treatment on children.

1 – Not at all knowledgeable
2
3 – Somewhat knowledgeable
4
5 – Extremely knowledgeable

8. Rate your current level of knowledge regarding best practices and interventions specifically pertaining to students recovering from cancer.

1 – Not at all knowledgeable
2
3 – Somewhat knowledgeable
4
5 – Extremely knowledgeable

9. How often are you involved in cases pertaining to a student who has been diagnosed with cancer?

1 – Never
2
3 – Once every five years
4
5 – At least once per year

10. How does your level of involvement compare to other school personnel in working with students who have been diagnosed with cancer?

1 – Least involved
2
3 – Moderately involved
4
5 – Most involved

11. Indicate the services you have provided as a school psychologist for children who have been diagnosed with cancer, their families, and peers (check all that apply).

☐ Assessing instructional level
☐ Work with school personnel to help them understand chronic illness
☐ Discuss treatment effects with school personnel
☐ Coordinate other health impairment plans
☐ Coordinate 504 plans
☐ Work with parents to help them understand cancer
☐ Discuss treatment effects with parents
☐ Work with a member of the child’s medical team
☐ Develop transition plans
☐ Develop a school reentry plan
☐ Work with peers, friends, and siblings
☐ Encourage peers to stay in touch with child
☐ Help child keep up with schoolwork
☐ Visit the child at home or hospital

12. School psychology graduate programs need to devote more training to childhood cancer and its complications.

1 – Strongly disagree
2 – Disagree
3 – Neutral
4 – Agree
5 – Strongly Agree
13. The state association should provide more training on childhood cancer and its complications.

1 – Strongly disagree
2 – Disagree
3 – Neutral
4 – Agree
5 – Strongly Agree

14. Indicate which areas you feel there is a need for additional training for school psychologists concerning childhood cancer (check all that apply).

☐ Immediate effects of cancer and cancer treatment
☐ Long-term effects of cancer and cancer treatment
☐ Communicating with medical teams
☐ Developing re-entry plans
☐ Developing transition plans
☐ Communicating with family members
☐ Coordinating 504 plans
☐ Coordinating other health impairment plans
☐ Informing peers, friends, and siblings
☐ Informing school personnel
### APPENDIX C: SURVEY RESULTS

*Survey Responses*

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<thead>
<tr>
<th>Question</th>
<th>M</th>
<th>SD</th>
</tr>
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<tbody>
<tr>
<td>2. Number of graduate training courses</td>
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<td>0.13484</td>
</tr>
<tr>
<td>3. Number of continuing education trainings</td>
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<td>0.44191</td>
</tr>
<tr>
<td>4. Rate current level of training adequate (1-5)</td>
<td>1.9636</td>
<td>0.88115</td>
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<td>5. Rate level of comfort (1-5)</td>
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<td>0.81360</td>
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<td>6. Rate current level of immediate effects knowledge (1-5)</td>
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<td>0.74761</td>
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<td>7. Rate current level of late effects knowledge (1-5)</td>
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<td>8. Rate current best practices knowledge (1-5)</td>
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</tr>
<tr>
<td>9. How often involved in cases</td>
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<td>1.01238</td>
</tr>
<tr>
<td>10. Level of involvement compared to others</td>
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</tr>
<tr>
<td>11. How many services provided</td>
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<tr>
<td>12. Graduate programs need for training</td>
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<tr>
<td>13. State association need for training</td>
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<td>14. Additional training areas</td>
<td>5.9455</td>
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</tbody>
</table>
APPENDIX D: VITA

EDUCATION
Marshall University Graduate College
Ed.S. in School Psychology  Anticipated May 2018

Marshall University Graduate College
M.A. in Psychology  2017
Concentration: School Psychology

Concord University, Athens, WV
B.A. in Psychology  2015
Minor: Biology

EXPERIENCE
School Psychology Intern
Monongalia County Schools  August 2017 – Current
Provide individual and group counseling for referred students
Using research based curriculums and various counseling
techniques, assist in implementation of requested staff
development trainings, conduct Functional Behavior
Assessments and assist in creating positive behavior intervention
plans, participate in crisis response team meetings, conduct
comprehensive psychoeducational evaluations for elementary,
middle, and high school aged students and provide research based,
individualized recommendations, consult and collaborate with
faculty, families, and outside agencies to best meet the needs
of students, attend and participate in Response to Intervention
meetings, determine appropriate academic and behavioral
interventions and monitor progress in order to determine
statistically significant change.

Practicum Student
Fayette and Raleigh County Schools  August 2016 – July 2017
Complete observations, provide tutoring, review student files,
complete functional behavior assessments and behavior
intervention plans, attend various meetings, assist in providing
school-wide trainings for school faculty, analyze intervention
effectiveness through progress monitoring data, present
assessment data to parents/SAT team, create and administer
individualized Curriculum Based Measurements, and administer various tests to students under the supervision and guidance of a licensed school psychologist, collaborate with aspiring teachers and counselors to provide a six-week summer school experience provided by Marshall University for children within the community.

Teaching Assistant

**Professor Joseph Koch in “General Biology” – Concord University** Fall 2013

Meet with students as needed to provide tutoring, demonstrate procedures during class and answer students’ questions, grade papers/exams.

**PROFESSIONAL PRESENTATIONS**


**COMMUNITY INVOLVEMENT**

Assistant Coach

**Girls on the Run** January 2018 – Current

Act as a running coach for a team of 3rd through 5th grade girls Participating in the Girls on the Run program, implement lessons each session focusing on encouraging positive emotional, social, and physical development.

Volunteer

**Hospice of Southern West Virginia** 2013 –

**January 2015**

Be a companion to patients of hospice by providing them with comfort and friendship in their final days, console and support family members of hospice patients.
Counselor  
**Camp Hope**  
Summer 2013

Become a mentor to children at a child bereavement camp in order to help them talk about and confront their feelings, provide counseling and advise to children in expressing themselves, talked with parents on appropriate ways of talking with their children about death.

**MEMBERSHIPS**

- National Association of School Psychologists
- West Virginia School Psychologists Association