Nature-Deficit Disorder: A School-Wide Response Initiative

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Abstract

As school counselors seek to increase their roles and responsibilities in schools, they will have the opportunity to impact a growing, quiet epidemic called Nature-Deficit Disorder. Students are becoming more disconnected from nature. Since school counselors interact with students in one of the school counselor’s three domains of expertise, academic, career, and personal/social counseling, they are in a unique position to educate and implement change surrounding nature and children in schools. Nature-based interventions are needed to support the entire school system, consisting of change in instruction, counseling, and parent/community involvement. Thus, school counselors are able to support, advocate, encourage, and implement systems change surrounding nature and play.
Nature-Deficit Disorder: A School Wide Response Initiative

It is common practice for children to live their lives structured, organized, and timed nearly to the minute. In only the past few decades, the amount of time children spend outdoors exploring, playing, and being in nature has decreased. Children today can likely tell about the loss of the Rainforest, the melting of the ice caps, and climate change. However, they may not be able to tell about the last time they explored the woods in solitude, enjoyed the peace of a field of grass, or simply played outside without a structured agenda. As this has occurred, obesity, attention-deficit disorder, impaired social skills and what can be characterized as a “culture of depression” are adding to the stress levels and severely impacting children and adolescents. Outdoor, unstructured play is endangered, and parents, schools, and communities have the opportunity to provide relevant and swift intervention.

Nature-Deficit Disorder

In 2006, Louv coined the term, Nature-deficit disorder with the book Last Child in the Woods. While the definition of Nature-deficit disorder varies, Louv (2006) endorses the following:

Nature-deficit disorder is not an official diagnosis but a way of viewing a problem, and describes the human costs of alienation from nature, among them: diminished use of the senses, attention difficulties, and higher rates of physical and emotional illness. The disorder can be detected in individuals, families, and communities (Louv, 2006, p, 34).

As advocates for children, school counselors have the responsibility and opportunity to aid in the development of all students academically, emotionally, and socially. It is the obligation of the school counselor to be knowledgeable about all possible explanations, alternative viewpoints, and information to offer new insight for behavior. At the same time children are playing less
outside, their play inside in front of a screen has increased (Louv, 2006). Nature-deficit disorder describes the growing divide between children, play, and nature. Knowing about Nature-deficit disorder, why it is important, and how to implement real cultural change around play and nature, gives school counselors the tools they need to lead their school community towards change that helps students, teachers, staff, parents, and community. Schools cannot afford to not know about Nature-deficit disorder.

The History of Nature and Play

Throughout most of history, children’s first choice was to play outside (Pyle, 2002). It was only two centuries ago when most children spent their days amongst fields, farms, or in nature’s wild home. By the late twentieth century, however, many children’s environments had become urbanized (Chawla, 1994). Still, even as recently as 1970, children had good access to nature and the Earth’s wonders at large. Therefore, children lived the majority of their lives outdoors, using sidewalks, streets, playgrounds, parks, green pastures, vacant lots, and other spaces throughout the urbanization process. Likewise, suburbia used fields, forests, streams, and yards (Moore, 2000). Without great restriction or supervision, children had the right to explore and interact with the natural world.

The Problem Today

The lives of children today are vastly different. The culture of children playing mostly outside has been replaced with children spending much of their time indoors (Louv, 2006). Now, children have few opportunities for outdoor, unstructured, unsupervised play, therefore restricting the right to develop a relationship with their natural world. The physical boundaries of where children are allowed to play has shrunk for a number of factors (Kytta, 2004).
A new ‘culture of fear’ has emerged, creating alarm among parents for their children’s safety. According to a 2004 study, 82% of mothers with children between the ages of 3 and 12 stated crime and safety concerns as one of the main reasons they do not permit their children to play outside (Clements, 2004). Thus, many children are not allowed to freely roam, explore, or play in their neighborhoods, or even their own yards, unless supervised by adults (Pyle, 2002; Herrington & Studtmann, 1998). In addition to ‘stranger danger,’ parents fear ultraviolet rays, insect-born diseases, and additional forms of pollution (Louv, 2006). With good faith, parents have overly structured their children’s lives, by holding the mistaken idea that sports or music lessons will make their children more successful students and adults (Moore & Wong, 1997).

**Screen Time**

Today, children grow up intertwined into the media culture, with television sets in their bedrooms, personal computers in their family rooms or bedrooms, and digital music players and cell phones are in their backpacks. Children spend more time with media than any other single activity other than sleeping. On average, American children ages eight- to- eighteen-years-old report more than six hours of daily media consumption (Roberts & Foehr, 2008). In addition, emerging research suggests early television exposure is linked with attentional problems by age seven (Christakis, D. et. al, 2004). Overuse of media at a young age can change children’s attentional focus later in life. Finally, young people today who are less happy with various aspects of their lives report engaging in higher levels of media use than do their happier counterparts (Roberts & Foehr, 2008).

**The Reasons We Don’t Play Outside**

Urban, suburban, and even rural parents give many everyday reasons why their children spend less time in nature than they themselves did. Parents cite the following: safety concerns,
disappearing access to natural areas, competition from television and computers, dangerous traffic, and more homework and other pressures. Most of all, parent’s fear of stranger-danger has been the main deterrent. Parents sense an overwhelming desire to create and maintain a structured schedule, along with keeping their children indoors where they feel they are safe from the strangers, environmental dangers, and traffic accidents (Louv, 2006). The need for parents to keep their children safe from harm has protected them from perceived crime; however, it has stolen children from the right of unstructured, outdoor play.

Now, children’s lives are increasingly controlled with programmed activities, leaving most with little time for exploring or free play outdoors. With the current epidemic of video games, computers, and the Internet, children now have more reasons to stay indoors, and parents may be inadvertently modeling for children a life in which nature activities are not a priority (Faber Taylor & Kuo, 2006). A life controlled by technology is contributing to the disconnection between children and nature. Children’s valuable play time is being used staying inside sitting in front of a screen, whether television, computer, or a hand held device. If the job of a child is to explore and grow, electronics interfere with this job.

Research is indicating a gradual decline of children’s physical activity outdoors. From 1997 to 2003, a 50 percent decline was reported in the proportion of children ages 9 to 12 who spent time doing activities like hiking, walking, fishing, beach play, and gardening. In addition children’s free play and discretionary time declined more than seven hours a week from 1981 to 1997 and an additional two hours from 1997 to 2003, resulting in a total of nine less discretionary hours per week over a 25 year period (Hofferth & Sandberg, 2001; Hofferth & Curtin, 2006). Due to the sharp decline, reaction is necessary at all fronts: parents, schools, and communities.
The Importance of Nature

Nature is a medium that may offer children an opportunity to regain their childhood, engage with real play, learn about themselves and their world, and help with any mental challenge they may have or be at risk of getting. Through play, imagination, exploration, teaching and learning, and mental benefits, nature might be just what families, schools, and communities need to help today’s youth. As a response to No Child Left Behind Act of 2001, schoolchildren today are given less free time and fewer physical outlets at school because less time is committed to recess, creative arts, and physical education. Although the response was made in an effort to focus on reading and mathematics, play is vital to academic environment. Play ensures that school settings support the social and emotional development of children as well as their cognitive development (Ginsburg, 2007).

Play

Time spent outdoors supports many aspects of children’s health. Nature is important to children’s development in every major way – intellectually, emotionally, socially, spiritually, and physically (Louv, 2006). Dr. Stephen R. Kellert (2009) of Yale University suggests that play in nature during childhood appears to be an especially important time for developing the ability to be creative, to solve problems, and to develop emotionally and intellectually. Less time in nature often relates to a physiological and psychological decline, consequently reducing the richness of the human experience (Louv, 2006).

Studies comparing patterns of play and creative play as important means of cognitive, social, and emotional development in green space versus built, structured spaces are consistent with the idea that green space supports healthy child development (Fabor Taylor & Kuo, 2006). Whereas, green play consists of open spaces with access to grass, trees, and minimal play
structures, structured spaces consist of playgrounds and structure for children to play on or with. Play is the spontaneous activity in which children engage to entertain and to occupy themselves (Burdette & Whitaker, 2005). Based on a clinical report, pediatricians need to be informing parents of the importance of play in a child’s social, emotional, cognitive, and physical development (Ginsburg, 2007). Thus, unstructured outdoor play has the potential to improve all aspects of a child’s well-being: physical, emotional, social, and cognitive (Burdette, & Whitaker, 2005).

To illustrate, in one such study, children observed in a school yard with both green play spaces and built play structures engaged in more creative forms of play in the green spaces rather than the built, manufactured space (Fabor Taylor & Kuo, 2006). Although the study does not claim to create play, it does indicate that when children intend to engage in creative play and are given the choice of green or nongreen play spaces, they will choose green spaces. However, a limitation in the study is self-reporting given by children and educational leaders. Further research needs to be performed using a trained, unbiased observer.

An investigation into how green school grounds affect the physical activity of elementary school children was conducted (Dyment & Bell, 2008). It consisted of questionnaires that were completed by 105 individuals from 59 schools participating in their school’s greening project. After analyzing the data, it suggested green spaces were vital in contributing to physical activity and play. The findings concluded that nearly 50 percent of the data reported claimed the green space school grounds promoted increased physical activity, and about 70 percent claimed an increase of more moderate physical activity after greening. In addition, 90 percent reported their school grounds encouraged a more diverse variety of play; and 84 percent claimed the greening of their school ground also encouraged more exploration of nature (Dyment & Bell, 2008).
The data provides meaningful insight into the benefits of green school grounds and their potentially crucial role in improving the quality of elementary school children’s physical play.

**Attention**

Playing outdoors may increase attention, as well as suppress symptoms of ADD/ADHD. Children with symptoms of Attention Deficit Hyperactivity Disorder (ADHD) gain an increased sense of concentration after contact with nature (Fabor Taylor et al., 2001). In addition, a further study suggests that green outdoor activities reduce symptoms significantly more than activities conducted in other settings. Findings were consisted across age, gender, and income groups (Kuo, F. and Faber Taylor, A., 2004). Furthermore, children who regularly play outside in nature show more advanced motor fitness, including coordination, balance and agility, and are healthier (Fjortoft & Sageie, 2000). Perhaps children with ADD/ADHD could be offered critical time outside to help manage or reduce their symptoms.

While playing outdoors, children are likely to encounter opportunities for decision-making, stimulating problem solving and creative thinking because outdoor spaces are less structured than indoor spaces. Since the problem solving during outdoors play promotes additional functioning, a higher, more engaged, level of skill is required to integrate and maintain attention and other cognitive functions. Children need to be outside in their natural environments, thus helping them develop skills to practice and maintain their attention. Therefore, children are forced to practice and master such functions as planning, organizing, sequencing, and decision-making (Burdette, H.L., & Whitaker, R.C., 2005). These executive functions are not only needed for academic success. They are needed to gain full independence.
Affiliation

Playing in natural environments stimulates interactions between children, therefore impacting social relationships (Moore, 1986, Bixler et al., 2002). Research suggests that children who play in nature have more positive feelings about each other (Moore, 1996). These successes are measured by the children’s social well-being and ability to sustain friendships, to cooperate, to lead, and to follow (Burdette & Whitaker, 2005). In addition, unstructured play with others, including parents, siblings, and peers, is a vital contributor for cultivating social skills (National Research Council and Institute of Medicine, 2000). Play provides the opportunity for children to interact, thus teaching them how to connect and develop their social understanding.

According to Adlerian Psychology, social interest consists of a, “high degree of cooperation and social culture which man needs for his very existence demands spontaneous social effort, and the dominant purpose of education is to evoke it (Ansbacher & Ansbacher, 1956, p. 134). Social Interest is the feeling of belonging to society. It can also be described as an attitude of caring and concern for others, as well as the community and environment on lives in, which is followed by an action to demonstrate concern. Students are not born with social interest, thus it demands education, training, and practice that students can find in the classroom (Nelsen, Lott, & Glenn, 2000). The way teacher’s approach to teaching and the student are vital and must serve to enhance the social interest in the best way possible (Dreikurs, Grunwald, & Pepper, 1998). In addition, “a child’s potential for learning is greatly enhanced when the child is viewed with mutual respect and when he is given a sense of equality and of equal responsibility along with an acknowledged role in decision making” (Dreikurs, Grunwald, & Pepper, 1998, p. 6).
All play with others requires solving some form of a social problem, like deciding what to play, who can play, when to start, when to stop, and the rules of play (Paley, 1993). Compromise and cooperation are results to solving problems during unstructured play. As a result, the process can create a range of social and emotional capabilities such as empathy, flexibility, self-awareness, and self-regulation (Burdette & Whitaker, 2005). These are essential for success in school, work, and life. When we take away time for outdoor play, we steal the opportunity for students to learn, grow, and be successful.

Affect

Even more important than intelligence and getting along with others is the desire to be happy. It is the happiness that children can gain through play that might be the biggest message to communicate about the important benefits of unstructured play. Play and its impact on affect is not widely studied. However, unstructured play has the potential to improve many dimensions of emotional well-being such as anxiety, depression, aggression, and sleep problems (Burdette & Whitaker, 2005). In addition, research suggests nature can act as a buffer on the impact of life’s stresses on children, therefore helping them cope with adversity. The buffer consists of grass, trees, or bushes, which is nature provided stress relief. The greater the amount of exposure to nature, the greater the buffer effect helps reduce stress (Wells & Evans, 2003).

Although there needs to be additional research conducted about children and physical activity outdoors, research about adults connection to physical activity and mood can give us a glimpse into the connection between children and outdoor play. Physical activity in adults has been shown to lessen anxiety and depression symptoms, thus improving mood and emotional well-being (Williamson, Dewey, & Steinberg, 2001; Steptoe & Butler, 1996). From this, we could conclude that it seems likely for free play in young children can improve emotional well-
being. In addition, free play outside in nature can have an even greater impact for cognitive, emotional, social, and personal development. In fact, one prescription for managing a difficult or demanding life circumstance might be to seek out attention-restoring settings, like nature, on a more regular basis (Kuo, 2001).

Outdoor settings offering unstructured, gross motor play in all these settings are necessary for optimal development. Therefore, in an effort to resurrect free play outdoors, play needs to be remembered and cherished as giving children the experiences joy, creativity, and friendship (Burdette & Whitaker, 2004). An affinity to and love of nature, along with a positive environmental ethic, grow out of regular contact with and play in the natural world during early childhood. Children’s loss of regular contact with the natural world can result in a biophobic future generation not interested in preserving nature and participating in earth’s diversity and wonder (Bunting & Cousins, 1985; Chawla, 1988; Pyle, 1993; Sobel, 1996, 2002 & 2004; Schultz et al., 2004).

**Volunteerism and Social Interest**

Spending time in nature working on restoration projects provides children the opportunity to be socially active and work towards something they believe in. Many have theorized that the restoration of natural areas is beneficial not only for nature and animal survival revival, but also for the volunteers who take part in the restoration process (Hartig et al., 1994). Findings in a similar study suggest that several involvement factors contribute to an important role in the degree in which benefits are experienced by the volunteers (Miles, Sullivan, & Kuo, 1998). First, volunteers who participate more frequently experience a higher level of satisfaction than those who participate less frequently. The study also reports that the volunteers identify higher levels of life satisfaction and overall life functioning Thus, volunteering for nature restoration
may work as a positive factor in contributing increased life satisfaction to the lives of the volunteers.

**Children’s Rights**

Providing a rigorous and relevant education to today’s children is at the heart of all school and curriculum change. Although everyone has the best intentions, some choose one direction, while others choose a different path. The majority of educational establishments lean towards more instruction time, less play-time, less outdoor time, and less time for childhood wonder and dreams (Cobb, 1977). When the path is chosen that takes children away from the job of childhood, play, schools must rethink the path they are on. Early experiences with the natural world have been positively connected with the development of imagination and a sense of wonder (Cobb, 1977). Wonder is an important motivator for life-long learning (Wilson, 1997).

**Academic and Enhanced Skill**

School counselors have a unique opportunity to provide and instill a school culture that supports nature learning. The research suggests a strong, positive connection between nature and increase testing performance. The American Institute for Research conducted a study, which was submitted to the California Department of Education. It reported data examining the impact of a weeklong residential outdoor education program for at-risk youth, 56% of whom reported never having spent time in a natural setting. The study consisted of one group who experienced the outdoor education program, and the other group (control group) who did not receive the outdoor learning experience. The results were statistically significant and the findings showed a 27% increase in measured mastery of science concepts; enhanced cooperation and conflict resolution skills gains in self-esteem; increases in positive environmental behavior; and gains in
problem-solving, motivation to learn, and classroom behavior (American Institute for Research, 2005).

In addition to increased academics, students left feeling better about themselves, their skills, and the natural world. If one week can offer at-risk students these results, one wonders what a green school, where outdoor, nature play and learning occur every day.

**The Achievement Gap and Nature Connection**

Closing the achievement gap is a top priority in many school districts throughout the nation. The achievement gap describes the unequal levels of academic achievement between low-income and minority students from other young Americans. Based on research, in order to increase achievement levels of minority and low-income students, schools must focus on high standards, challenging curriculum, and good teachers (Haycock, 2001). Since all students should have access to rigorous and relevant education, the achievement gap offers statistics outlining the disparity of education in this country.

In 1998, a roundtable of state educators and environmental leaders came together to study environmental-based education, focusing on a specific area of environmental education: using the environment as an integrating context for learning (EIC). The hope was to improve student learning, change longstanding pedagogical paradigms, and influence the way young people learn and live successfully in the world that surrounds them (Leibermann & Hoody, 1998). The study provided statistical analysis in the following areas: Language Arts, Math, Science, Social Studies, Thinking Skills, Interpersonal Skills, and Revitalized Teaching. In addition, the California Student Assessment Project Phase Two: The Effects of Environmental-Based Education on Student Achievement conducted in 2000 and 2005, provides further evidence in
support of the positive benefits environmental-based education has on student and school achievement (SEER, 2005).

**Language Arts**

Based on the Executive Summary of the research conducted by Leiberman & Hoody, “all seventeen comparative studies of language arts achievement data found that standardized measures affirm the academic benefits of EIC-based learning for reading, writing, and general language skills”, (1998, p. 4) Furthermore, not only did the EIC students perform well, it is reported that the EIC students outperformed their peers from traditional programs at all nine of the schools. The Educators from the study reported the following: (1) Improved development of language arts skills (93%) (2) Greater enthusiasm for language arts (94%). (3) More success in communicating with others (94%) (Lieberman & Hoody, 1998).

**Math**

The study affirmed the importance and academic benefits of environment-based learning as it relates to mathematical skills. It is reported students began looking at math differently when in the context of their environment. Educators reported the following effects EIC students experienced: (1) Improved understanding of mathematical concepts and content (73%) (2) Better mastery of math skills (92%) (3) More enthusiasm for studying math (89%) (Liebermann & Hoody, 1998). Learning math in the environment offered students a greater understanding and practical value of understanding the importance of math.

**Science**

Studies have consistency revealed the U.S. public shows signs of the environmental literacy gap becoming greater. To illustrate, two-thirds of the public cannot pass a basic environmental quiz (Roper Starch Worldwide for the National Environmental Education and
Training Foundation, 2001). In addition, 88% of the public fails a basic energy quiz (Roper ASW for the National Environmental Education and Training Foundation, 2002). EIC students, on-the-other-hand, effectively master scientific knowledge and skills and achieve a deeper understanding for scientific concepts, theories, and process, as compared to traditionally taught students (Liebermann & Hoody, 1998).

In addition to gaining more insight into the scientific concepts and applications, EIC students are more capable of transferring their knowledge to tasks outside of school. The educators reported the following: (1) Increased knowledge and understand of science content, concepts, processes, and principles (99%). (2) Better ability to apply science to real world situations (99%) (3) Greater enthusiasm and interest in learning science (98%) (Liebermann & Hoody, 1998). This research suggest that the natural, outdoor environment is a great landscape to dig into science text and experience.

Social Skills

The study strongly suggests that students grasp the complex interrelationships and connections among individuals, communities, and society better when presented with the opportunity to apply their social studies knowledge in real-world settings. Educators reported the following: (1) greater comprehension of social studies content (95%) (2) More advanced skills in applying civic process to real-life situations (97%) (3) Growing enthusiasm for social studies (95%) (Lieberman & Hoody, 1998). Students began thinking beyond the classroom, making connections between geography, history, politics, economics, and natural resources in their environments. Due to the increased engagement, students became more interested in working on assignments.
Thinking Skills

After switching to EIC curriculum students’ cognitive abilities appeared to grow more quickly, and they became better at synthesizing information and thinking strategically. Educators reported the following: (1) Increased ability to think creatively (98%) (2) Increased proficiency in problem solving and strategic thinking (97%) (3) Better application of systems thinking (89%) (Lieberman & Hoody, 1998). Allowing students the freedom to explore their natural world helps them create, maintain, and develop a higher level of thought.

Interpersonal Abilities

Creating an environment supporting collaboration and team work was the main goal of EIC. As students participate in these activities, they are given the opportunity to learn how to communicate with peers, function democratically, and work as a team towards common goals. Educators reported the primary effects on interpersonal skills of EIC students include the following: (1) Better ability to work in group settings (98%) (2) stronger communication skills (94%) (3) acting with greater civility towards others (93%) (Lieberman & Hoody, 1998). Students working together creates a school community where all belong and contribute to a common goal.

Revitalized Teaching

Bringing teachers outside of their schools to teach all subjects led them to be more engaged and become increasingly enthusiastic to teach. Perhaps when a teacher is more engaged, the students are too. Excitement is infectious, and teachers have the ability to spread the disease of learning and having fun. The research concluded through the use of teacher self disclosure that many of the over 250 educators who participated in the study considered their EIC endeavors the highlight of their teaching careers. Educators reported the following: (1)
increased enthusiasm and commitment toward teaching (95%) (2) better working relationships with their students and colleagues (94%) (3) more opportunities to explore new subject matter than traditional teaching (95%) (4) frequent occasions to use innovative teaching strategies (96%) (Lieberman & Hoody, 1998).

The results of the study indicate that nature is a powerful teacher, innovator, and classroom management tool. Through the use of nature-based education, students reported to be happier and their test scores improved. In addition, teachers became more excited to teach, collaborate with colleagues, and create new instructional materials. Thus, the research suggests that nature can be a powerful intervention and prevention tool for the achievement gap experienced by the majority of our country’s schools.

**Call to Action: The Need for a Toolkit**

As the bond is breaking between children, play, and the natural world, a growing body of research links their mental and physical health directly to nature in positive ways (Louv, 2006). Why is it widening, while the need is growing?

From a holistic health perspective, addressing all dimensions of health and nature, while including the importance of physical activity, is the manner in which the bond can be repaired. If the natural, outdoor environment is encouraged, promoted, explored, and welcomed, children will embrace the opportunity to reengage with nature. Conversely, if children are discouraged, confined, over-structured, and taught to fear the environment, children will become even more disconnected from the natural world. Continuing the current trend threatens children and steals them from their rights as developing human beings.
The Role of the School Counselor

School counselors work within four themes consisting of leadership, advocacy, collaboration, and systemic change (ASCA, 2005). Connecting children to nature requires everything mentioned above. School counselors are positioned to provide consistent and visible leadership, act as advocates for nature initiatives, collaborate with teaching staff, administration, and parents surrounding planning and implementation for nature experiences, and instill systemic change by helping to educate, empower, and lead teachers, students, and parents.

According to the American School Counselor Association (ASCA), “school counselors serve as leaders who are engaged in system wide change to ensure student success,” (ASCA, 2005, p. 24). School counselors ensure all students have access to rigorous and relevant academics, thus leading to greater opportunity and overall increased academic achievement for all students (ASCA, 2005). The nature movement is a place where school counselors can assert their leadership skills by presenting skills surrounding connecting students to nature.

School counselors advocate for all students’ academic, social, and emotional needs. School counselors believe, support, and promote all students, therefore ensuring school success (ASCA, 2005). As educational leaders, school counselors have an ethical obligation to help all students succeed in school. Nature experiences and programs may help in achieving this goal.

School counselors collaborate and team with all stakeholders, both inside and outside the school system. In doing so, school counselors help develop and implement responsive educational programs that support student achievement (ASCA, 2005). The above research indicates the need for students to connect with nature in their school setting. School counselors can respond by collaborating with school staff to work towards goals of equity, academic success, and mental health.
Systemic Change is needed to break current barriers students experience to academic success. According to the ASCA, “systemic change occurs when policies and procedures are examined and changed in light of new data,” (ASCA, 2005, p. 25). New research indicates a positive correlation between increased nature experience and academic, social, and emotional achievement. School counselors can help break current, outdated barriers to students’ success.

The accumulation of research points to the importance of nature in the lives of children. As the technology continues to advance, the disconnection between children and nature grows. According to Louv, all people must fill their nature prescription with daily, outdoor experiences (Louv, 2011). Developing a strong, lasting relationship with the natural world will provide lifelong benefits. The nature prescription is free and just outside one’s door.

Due to the mounting research, a toolkit is needed to aid in the implementation of nature programs in schools. Today’s students continue to disconnect with nature, while increasing their connection to media and technology. Throughout history, play was believed to be an essential part of childhood, however, today, children are being raised and taught to value inside play and screen time. The research indicates a link between nature and attention, affiliation, and affect. School counselors must act as leaders and advocates for students by collaborating with school and community staff to bring systemic change to the school.

The following toolkit consists of three phases addressing education and motivation for school counselors, teachers, and parents. It provides individual and group counseling ideas, as well as guidance lessons. In addition, the toolkit offers two power point presentations: one for teachers and the other for parents. Along with the power point presentations are assessments to be used to determine the prevalence and severity of nature-deficit disorder in the school and
home. The goal of the toolkit is to provide a step-by-step outline for how a school counselor can create change to the school system, and ultimately the lives of the students.

Conclusion

Nature needs to be part of the daily lives of children, adolescents, and adults. The mental and physical consequences of nature disconnection are alarming and severe. The epidemic of nature-deficit disorder demands the full attention of educators, counselors, parents, community members, and researchers. As research continues to point to the benefits nature provides all human beings, it is critical to organize, act, and implement change. Through leadership, advocacy and collaboration, school counselors can provide the resources, tools, and inspiration necessary for schools and families to reconsider and change their current nature experiences. With the help of individual, group, and classroom guidance, school counselors can help reintroduce students into nature. Parents can model the way for their children by reconnecting with nature and being the role model their children need and deserve. Nature needs to be understood as a “vitamin” that will bring physical and mental satisfaction.
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