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**EFFECTS OF EXCESSIVE COMPUTER USE AMONG YOUTH:
IMPLICATIONS FOR SOCIAL AND SPIRITUAL DEVELOPMENT**

by

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Reported Concerns

“Am I concerned!” My nephew, age 12, attends seventh grade in a middle school. He began using a computer as a toddler. When I am with him, he always wants to be on the computer and seems unaware of others around him. He is a good kid, but I think he is addicted to the internet and computer games. His parents think I am exaggerating concern, but his social skills are much more immature than other children his age. He acts more like a 6 year old. When he is not on a computer, he plays computer games in his imagination. Yes, I have very serious concerns about my nephew’s time on the computer” (Anonymous family member).

Dian McClain, Founder of the Center for Creative Living School in Fort Worth, Texas, a private, non-profit Adventist elementary and middle school, is one of two Adventist school administrators who provided the inspiration for the study. She expressed many concerns about the impact of content available on the computer stating, “I have great concern about how excessive computer usage, and other technology devices, are impacting students’ social and spiritual development. It is a big challenge for educators today. Even with filters, children can access undesirable information if they do not have good supervision at home and in schools.” She has seen a change in students becoming increasingly obsessed with computer games, text messaging, and the desire to have the latest technology devices. When talking with her middle school students about the increased attraction to violent video games, she suggested working together to develop a video game that would create a hero for good to overcome evil. The students’ replied, “but it would be boring”!

Jim Weller, Principal of Rogers Elementary School in College Place, WA, the second Adventist school administrator who encouraged the study, shared his concerns about the use of computers, text messaging, and other technology devices available to students. He stated, “Very strong filters are on all of our school computers to prevent access to harmful content available on internet sources. While computers are a highly valued education resource, educators understand the potential problems. As educators, we are aware that children are subject to violence on computer games, have access to pornography, and are vulnerable to internet predators.”

During our discussion, Weller expressed concern about virtual instead of real relationships. “I’m concerned about the possible negative impact on those who have begun to live in “virtual communities”. At my keyboard, I can switch friends on and off. Email allows me to ignore them until I am ready. This can be convenient, but might it also train us to treat people like light bulbs; on when I want, and off when I lose interest? It’s not the way a family works! My family lives in real space not virtual space. I can’t deal with my child’s or our student’s physical or emotional needs at my convenience. Might digital friendships rob us of personal commitment or some level of emotional and spiritual intelligence?”

The themes of computer value and harm are far from new. McClain and Weller are in agreement and appear to reflect concerns of most, if not all, Christian educators. Research indicates that administrators and teachers in public and private schools share similar impressions.

Introduction and Purpose

Two Adventist elementary school principals sharing concerns about student access to the internet, cell phones, text messaging, and other technology devices inspired the study. While educators and parents do not question the value of computers, it is vital that both the benefits and

challenges be considered. In conversations with teachers and parents, concerns were expressed about how excessive computer usage effects the health, emotions, socialization, and spiritual development of youth.

Recent studies indicate that teenagers have reported serious fears of sexual addiction, obsession with progressive violent computer games, family conflict over computer usage, and tendency toward poor self-esteem and depression (Morris, 2003). While concerns raise serious questions about computer benefits, the computer is highly valued in most homes and schools from pre-school to the university. The Information Age with new and evolving technology is reality. No one questions the value of the wealth of information on every imaginable subject that is available on the computer. The value, however, is not free from harm and danger, especially for unsuspecting and vulnerable children and teenagers. Therefore, the purpose of the study is to research, explore, and discuss the impact of computer usage upon children's social and spiritual development.

The Computer in the Family

Sixty three percent of all children ages 3 to 17 live in households with at least one computer" (U.S. Census, 2003, See Appendix A). It is further documented that 85% of 8 to 18 year old youth have computers at home (Kaiser and Pew, as cited in Seligman, 2006). In fact, in many families, it is not unusual for family members to have their own personal computer. A parent interviewed for the study smiled stating, "Our family "togetherness" is when everyone is home working on their own computer!" While humor lightens concern, parents are facing new and serious challenges. Some of the challenges are internet predators, desire for violent computer games that seem to normalize pleasure from violence and aggression, pornography, increase in

childhood obesity due to lack of physical exercise, neck and back aches, and sleep deprivation from late night computer usage that interferes with attention during school hours.

Families have realized that communication among family members is more limited by use of the computer as well as the television. One parent stated, “We used to eat at a table, but now we are either in front of TV or eating while using a computer. I think we need to shut off televisions and computers during meal times and get back to our “old fashion” way of eating meals together. It used to be the time we had to talk together. While not everyone in our family would agree, I feel like our lives have been taken over by computers and televisions as the new priority”.

The unsupervised use of the computer by children at home is a serious concern. In fact, many children have personal computers in their bedrooms with no adult supervision. While parents may use equipment to filter undesired materials, children have learned how to by-pass filters, especially in the case of out-dated computer equipment. Parents need to be alert to the potential dangers of general computer usage. Some dangers are internet letter codes (example, SAL for inquiring a child’s Sex, Age, and Location), which can be used by predators on the internet and/or text messaging, bullies using online intimidation of children, and theft. Children are often misled to give pertinent information to a skilled internet predator.

Cybercrime is a new word for unethical and illegal usage of computers by children or adults. In 2000, Chen & Lindsay described an example of cybercrime when four teenagers hacked into an Internet server that enabled them to access credit card numbers. Before they were caught, the four teenagers had spent \$200,000 shopping online using the stolen credit card numbers.

The computer is neither good nor bad. It is a tool. Like most tools, it can be highly useful enhancing education, enjoyment, and technological skills; likewise, it can be a source for harm, addiction, and despair. Parent supervision and awareness of how a child of any age is using the computer are vital. Computer safety education is available for parents. Several web sites are designed to educate parents about computer and Internet safety. Web sites such as *Children Online*; *Not My Kid*; *Kids and Computers*, and *Whole Family* are excellent resources providing guidance and safe usage directions for home computers.

Computers in the School Setting

In the school setting, it is imperative that teachers structure computer usage, be aware of programs being used, and have visual access to all computers. Schools tend to have stronger filters than home computers; however, it is important teachers understand filters are not always reliable. Computer usage that enhances education is a highly valued, but potential exists for it to be detrimental when not used as designed for education. An example of detrimental usage is when the computer is a reward for “free” time, and students become obsessively competitive with each other while playing games. In addition to competition, many of the most desired computer games are violent. Another example is *My Space*, a computer program that is often unsupervised and can put a child at risk of danger from predators and known sex offenders. Students have been found accessing pornography while teachers believe students are using the computer according to instruction. Teachers have good opportunity to educate students about internet dangers and encourage discussion about concerns with computer usage. Students with low self-esteem, limited friends, and subject to ridicule and rejection are at high risk in many ways, including computer

addiction. For some students, the computer may, in fact, be their only friend. Schneider & Schneider, as early as 1984, found that the computer has characteristics that are appealing to students described as “at high risk” socially. They stated the computer will not reject, criticize, or abandon them. And, as Weller pointed out, virtual friends can be deleted by the push of a key giving the student a feeling of being in control.

While there is not an identifiable type of person prone to computer addiction, youth (and adults) who lack significant social connections seek escape and comfort through the computer as their primary friend (Samson and Keen as cited in Morris, Christine 2003). Blogs and text messaging as a means of social contact have become concerns to both parents and teachers. It is an exciting time of technical growth; however, parents and teachers are challenged to keep up-to-date with the latest device a student may be using.

Studies vary in how teachers value the computer for instruction. In the discussion with McClain, she stated, “Students today don’t know how to use the library or access the great wealth of knowledge from literal books. When asked to do a research project, the student immediately wants to rely upon the computer to access sources. “While this isn’t “bad”, she continued, “I want the student to access a library and use books and journals for some of their sources. I will not accept papers that have internet references only.” Her view is shared by other educators. Day (1999) made emphatic observations stating, “Computers do not teach children to question or discriminate among sources of information, weigh perspectives, think about consequences, to bring contextual meaning to a situation, be creative, or to make judgments” (p. 198). McClain’s view agrees with Day, and she further adds “many students do not question if information they read on the internet for research is factual.” She observes students used to violent adventure computer games are

seeking more interactive and exciting activities and are less satisfied with quiet reading for assignments in the classroom.

Some may argue that Day's and McClain's positions are extreme, and that in fact, students can be taught to use the same discrimination skills with computer sources. Educators need to learn how to utilize, control, encourage and integrate the computer as one curriculum resource among the many educational choices available to students.

Impact Upon Social Development

One of the primary goals of education in the United States is social development of students. Vygotsky (1978) stated, "Social norms and interactions play a powerful role in all learning, especially in learning to communicate, empathize with others, and behave in culturally acceptable ways" (as cited in Collinson, 2001, p. 2). Goleman (1995) emphasized the "importance of empathy, which leads to caring, altruism, and compassion toward one another as students progressively mature" (p. 285). The classroom is a unique environment of teacher/student and student/student daily interaction. Next to home, it is a primary environment for students to learn social skills, problem solving, conflict resolution, respect, self-discipline, and implementing the Golden Rule. Basic skills such as sharing, caring for another, asking for help, saying NO to undesirable behaviors, learning from mistakes, and balancing peer pressure are as important as the traditional 3 R's of education as suggested by Weller's comments..

One study found that computer usage in the classroom promoted positive social interaction among students, especially when they were asked to work with a partner to talk about their work or activity

(Heft and Swaminathan, 2002). In another study, Clements et.al. (1997) found "children's interactions while working at a computer included a wide range of social skills such as

resolving conflicts and developing cooperative learning strategies” (p. 2). Their study revealed that children who work together are more likely to ask for help from a peer instead of the teacher. Students were observed watching peers using computers as a way for learning computer skills rather than seeking teacher assistance (Heft and Swaminathan, 2007)). However, while an interesting observation, it does not lessen the value of teacher instruction. The challenge for the teacher is to create an atmosphere of safety, caring, and to encourage students to talk with each other about their successes and concerns when using the computer. Students of any age are not beyond teasing, name calling, and fighting, which can be stimulated easily during the use of computers as well as other classroom or sport activities. At times, it is important for teachers to intervene to protect, listen, and assist students to find resolution without physical fights or demeaning language. The teacher serves as a model for social skill development. Social development in the educational setting is enhanced through discovery, observation, sharing, and experiential opportunities.

Impact Upon Spiritual and Moral Development

“The development of character is the end of all school work”. An Adventist educator may think the quote was written by Ellen White; however, it is a quote written by an early educator, Dewey, in 1909. Ellen White did write, “Our first duty to God and our fellow beings is that of self development” (*Child Guidance*, p. 161). She further stated, “Strength of character consists of two things: power of will and power of self control” (*Child Guidance*, p. 161). Educators join the many other disciplines concerned about child and teenage safety and development in all domains of education, including socialization and moral development. In the book, *Education*, White wrote, “Every human being, created in the image of God, is endowed

with a power akin to that of the Creator—individuality, power to think and to do. It is the work of true education to develop this power, to train youth to be thinkers and not mere reflectors of other men’s thoughts... let students be directed to sources of truth and the vast fields opened for research in nature and revelation” (p. 17). What would she say about computer education today? It has been established that computers, like any education tool, can be a source of wonder and goodness as well as for harm and danger. In *Child Guidance*, perhaps her answer is available to Adventist and other Christian educators. “It is right for youth to feel that they must reach the highest development of their mental powers. We would not restrict the education to which God has set no limit. But attainments will avail nothing if not put to use for the honor of God and the good of humanity” (p. 497). Spiritual principles provide inspiration for seeking that which is good for children, families, and educators.

The computer is only a machine with potential for good and harm. Who guides, teaches, and supervises computer use will determine its impact upon children. Mary Schlimme (2007) summarizes the current research well. She concluded that computers and video games can provide benefits such as increased social skills, educational lessons, and language development; however, excessive use may lead to poor peer interactions and patterns of behavior that reflect descriptions of other addictions. A computer will never replace a parent or teacher in the developmental and educational growth of children. The computer is not designed to model or teach spiritual, moral, and ethical values and behaviors. When parents and teachers take an active role in supervising, instructing, and engaging with children’s usage of the computer, their active and interested presence will encourage children to explore, discover, and learn. It will enhance the social and spiritual development of children to the glory of God.

What Do Parents/Educators Need to Know?

Computers have strengths and weaknesses as an educational resource. Pertaining to strengths, Schlimme found an increase in children's reading and spelling capacities. Spatial and critical analyzing skills have improved for some students. The computer gives immediate feedback and opportunity to correct a response creating a sense of success and accomplishment. Computers provide opportunities to meet challenges or to create alternate strategies. However, outcomes are not consistent. For some children, socialization is enhanced; for others, it is isolating. Research examining changes in children's behavior resulting from computer usage revealed mixed outcomes determining *cause* of behavior changes in children. Some studies found a positive correlation between violent games and more aggressive behavior while other studies found no correlation. Some children experience enhanced creative skills; others become discouraged by not being able to do particular tasks or play games successfully. Therefore, the questions and fears about the impact of computers in education and homes remain without definitive answer.

Computer Addiction

In the 1940's, C. S. Lewis identified the impulse of addiction stating, "Addiction is an ever increasing desire for an ever decreasing pleasure" (as cited in Bantick, 2004, p. 1). In response to Lewis's statement, Bantick wrote, "He could have been speaking about computer games!" (p. 1).

Is it possible for a child to be addicted to a computer? Ivan Goldberg, MD, Psychiatrist, coined the term *Internet Addiction Disorder* based upon his experience with patients admitting

their computer addiction, which, he states, is the first step toward regaining balanced computer use. Like other therapists, Goldberg believes that computer addiction is related to other underlying problems that need to be identified and resolved through therapy. As in some other addictions, Goldberg does not believe that an addiction to a computer means one can never use a computer again. Young, an associate therapist with Goldberg, emphasized a decline in use until a “sensible” amount of time on the computer is reached (as cited in Murray, 1996). While therapists believe that underlying personal problems appear to be driving computer addiction, there is no agreed upon cause or treatment.

Although the literature is not in agreement with a definitive explanation for addiction, there appears to be sufficient evidence validating computer addiction occurs among children and adults. Dr. Maressa Hecht Orzack, a Harvard University Psychologist and founding Director of Computer Addiction Services at McLean Hospital in Belmont, MA, stated “Computer addiction is an emerging disorder suffered by people who find the virtual reality on computer screens more attractive than everyday reality” (as cited in Cromie, 1999, p. 1). In the same source, Orzack reported receiving an email from a young teenage boy begging for help. The boy wrote, “I have been a computer addict since I was 11. My grades have dropped...I miss meals, suffer backaches, lose track of time, go to bed late, and sleep in school. I’m afraid that I will run away if my parents take my computer away. It is almost like the computer owns me” (p. 3).

The following questionnaire is a 20 item guide for parents, educators, and children to answer the question: Am I, or is my child, addicted to the computer? The guide addresses physical, social, and psychological symptoms identified from multiple studies by Orzack (Harvard University, 1998; website: www.computeraddiction.com).

Am I Addicted to My Computer?

- Inability to stop using the computer
- Neglect of family or friends
- Lying to family or others about computer activities
- Noticeable drop in school or work performance
- Soreness in hands or arms
- Dry eyes
- Falling asleep and fatigue during the day
- Failure to maintain personal hygiene
- Lack of interest in other activities or social events
- Experience feeling irritable, angry, sullen when not on the computer
- Obsessing about computer games and being on line when unable to use the computer
- Head, neck, or back aches or pain
- Weight gain
- Lack of exercise
- Using the computer for extended hours for pleasure or to reduce stress
- Not keeping up with assignments or work responsibilities
- Choosing the computer rather than being with friends or family
- Spending money on video games
- Unable to stop using the computer even when you try

If a child or an adult responds positively to eight of the 20 items listed, it is recommended to seek assistance from a mental health professional trained in the area of addictions before symptoms increase. Addiction often indicates an unidentified need being fulfilled by the computer. The addiction may not be cured, but interventions can help change the behavior and address the need in a healthier manner. Ironically, the computer has many on-line sources for help, which may be accessed for assistance and referral.

What Can Parents/Teachers Do to Help?

Be a safe adult for a child to talk with concerning possible computer addiction. The child needs to know that the parent or teacher will not ridicule, scold, manipulate, or withhold care when the risk is taken to share an intense concern. When talking with a child who believes s/he may be struggling with computer addiction, affirm the courage it took to talk about it. Assure the child that help is available for overcoming problems. Do not threaten to dismantle or take the computer away. Contact a mental health center or local hospital for a referral for a professional trained in addiction disorders. It is important for parents/teachers to not minimize the importance or degree of the child's concern.

Children may not seek help until the habit is well established. A child may be experiencing fear, physical symptoms, and emotional distress too great for continuing to maintain the secret. Orzack stated, "The goal of treatment is to help the child (or adult)

to recognize the problem. Therapy takes the issue that there are other things going on and to be in charge of changing it” (as cited in Becker, 2002, News.com). Adults and children are urged to seek help early before the addiction becomes very serious.

Seven safety tips for parents, teachers, and youth are presented to be a source of help until professional assistance can be arranged. The tips could serve as a source of prevention of serious problems when parents and teachers discuss them with children periodically. Posting them in a school computer room and in the home provides a visual reminder for youth to use the computer safely. It provides direction for what to do when they feel uncomfortable with a computer contact.

Computer Safety Tips for Children and Teenagers

1. Tell your parent(s) or another trusted adult if someone on the internet communicates anything uncomfortable or asks you to do something you know is not right. Write down all identifying information to give to the person you trust for assistance. Do not respond.
2. Log off and tell an adult you trust if anyone shows you sexual or nude pictures or uses sexually explicit or bad language. Do not share any personal information about yourself, including your age, address, gender, or telephone number. Do not text message with this person. Report as soon as possible.
3. Do not accept gifts or promised favors from someone on the internet whom you do not know.

4. Do not return e-mails, telephone calls, or other communication with someone you do not know no matter “how nice” s/he may sound or promises gifts for you. Immediately report as stated above.
5. Do not pretend to be someone you are not such as pretending you are older even if you think it is just for fun.
6. Do not agree to meet with a stranger in person from an on-line contact. People can be computer predators who can be harmful and dangerous. Shut down your computer and report immediately.
7. Your computer is for education and fun, but it can also be a source of harm if not used wisely. Anything or anyone that feels unsafe, scary, or enticing should be a signal of potential harm to you or others. Be wise! Be safe! Be alert!

(Reference: Internet Addiction, Texas State Counseling Center; E-Mail: Counseling.tx.state.edu).

Conclusions

While First Lady of the United States, Hillary Clinton made the significant statement, “It takes a village to raise a child.” Clearly, her words are true as children and teenagers depend upon parents, teachers, and other adults to guide them in their physical, social, educational, and spiritual development. We are living in a time of dynamic explosion of information and communication resources unparalleled in the past. As the computer and other technology instruments are more and more developed, the opportunities and challenges for parents and teachers will continue to magnify.

The study was inspired by Adventist educators and parents expressing concern for how excessive use of the computer may impact the social and spiritual development of youth in the school and home environments. Their concerns are not unfounded. While computers have changed our world for good, including education from pre-school to doctoral programs, the potential for harm and danger is recognized.

One purpose of the study was to inform Adventist educators of some of the research outcomes pertaining to computer use in education and at home. More work needs to be done to identify concerns among Adventist educators at all educational levels, and to assess how Adventist youth may be experiencing similar computer addictive behaviors as identified in the literature reviewed. Children suffering from computer addiction are crying for help in multiple areas. Educators and parents need to be able to respond to them in a way that will bring physical wholeness and social, emotional, and spiritual healing into their distressed lives.

In the book, *Education*, Ellen White wrote: “Every human being, created in the image of God, is endowed with a power akin to that of the Creator with individuality, power to think, and power to do”(p. 17). The computer is a technology device. Is it good or bad? It has potential for both depending upon the user and programmers. I believe that as Christian educators, we are educating youth to live abundantly in God’s goodness now and for eternity. Children are in a maturing process in need of structure, caring, guidance, and compassion. As teachers and parents, can we hear the cry of the souls of youth muffled by the clicking of the computer keyboard?

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