

The Impact of Childhood Obesity Upon Academic, Personal/Social, and Career  
Development: Implications for Professional School Counselors

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### Abstract

This article examines the impact of childhood obesity upon the academic, career, and personal/social development of students. The four components of the American School Counselor Association's (ASCA) delivery model, (classroom guidance, consultation, responsive services, and system support), are utilized to offer suggestions to the professional school counselor (PSC) for designing programs aimed at addressing the growing problem of childhood obesity. It is the goal of this article to enlighten PSCs and encourage immediate action.

## The Impact of Childhood Obesity Upon Academic, Personal/Social, and Career Development: Implications for Professional School Counselors

According to the 1999-2000 National Health and Nutrition Examination Survey, approximately 15% (9 million) American children between the ages of 6 and 19 are overweight; which is triple the number who were overweight in the 1980 survey (National Center for Health Statistics, 1999). This survey also reports that 10% of children between the ages of 2 and 5 are overweight, up from 7% in 1994. The physical, emotional, and social costs of increasing rates of obesity among this population are great. Overweight children and adolescents face the risk of increased health problems, including cardiovascular disease and Type 2 diabetes. Between 1979 and 1999, hospital stays for obesity related problems tripled among 6–17 year-old children (Dietz, 2004). Obese adolescents have also reportedly experienced less psychosocial well-being and lower self-esteem than peers who are not overweight (Mellin, Neumark-Sztainer, Story, Ireland, & Resnick, 2002). According to the Surgeon General (USDHHS, 2001), social discrimination is perceived to be the greatest problem facing overweight children and adolescents, and is contributing to the low self-esteem and depression experienced by this population. Perhaps the most alarming trend is that the majority of overweight adolescents will become obese adults (Bouchard, 1997; National Center for Health Statistics, 1999; USDHHS, 2001; Troiano & Flegal, 1998).

Speculation into the many causes of obesity is best summarized by the illumination of three factors: Unhealthy eating habits, lack of exercise, and a genetic predisposition. Many children and adolescents consume unhealthy quantities of dietary fat, due in large part to the popularity of fast-food restaurants and convenience stores.

Couple this increased caloric intake with a sedentary lifestyle, and the results are what Rossner (2002) has referred to as “the disease of the 21<sup>st</sup> Century” (p. 52). The Surgeon General (USDHH, 2001) reports that 43% of adolescents spend more than 2 hours each day watching television. Additionally, computers, video games and cellular telephones have become popular activities that require very little physical activity and may actually lower metabolism (Zametktn, Zoon, Klein, and Munson, 2004).

Because children and adolescents engage in the majority of their physical activity during the school day (Sallis & McKenzie, 1991), research reports that participation in school-based sports programs or extracurricular activities greatly reduces the risk for becoming overweight (Burke et al., 1998; Elkins, Cohen, Koralewicz, & Taylor, 2004). Unfortunately, this national health crisis comes at a time when budget cuts and a focus on standardized testing have left many schools unable to offer physical education classes, recess, sports programs, and extracurricular activities (USDHH, 2001; Ponessa, 1992, Van Staveren & Dale, 2004). There has been a nationwide trend in the reduction of team-based sports offered in the elementary and middle schools. (Elkins, Cohen, Koralewica, & Taylor, 2004. However, because adolescents become less physically active outside of school as they age (Kimm et al., 2002) and as grade in school increases (National Center for Chronic Disease Prevention & Health Promotion, 2001), it seems critical that school-based programs be made available to children and adolescents if the problem of obesity is to be adequately addressed.

Speaking to the academic, personal/social, and career development needs of all students is pivotal when implementing a comprehensive developmental school counseling program as outlined by the American School Counseling Association

(ASCA, 2003). This article will explain how obesity influences each of these three developmental areas and offer the professional school counselor (PSC) ideas for intervening using the four areas of the ASCA delivery model: Classroom Guidance, Consultation, Responsive Services, and System Support. While a general body of (predominately medical) literature exists regarding the impact of obesity on student development, the professional counseling literature is has very few articles on the topic. The goal of this article is to enlighten PSCs and encourage immediate action.

In order to assist the reader, certain terms and concepts need to be defined or clarified. For example, obesity is considered by the National Center for Health Statistics (1999) as having a body-mass index (BMI) at or above the 95<sup>th</sup> percentile on the sex-specific BMI growth charts. BMI is calculated by dividing weight (kg) by height (m<sup>2</sup>). Overweight and obesity are used almost interchangeably in the professional literature; therefore, for purposes of readability, this article will do the same. Also cumbersome to the reader may be the repeated use of “childhood and adolescent” obesity. This article will use the term “child” or “childhood” to refer to those students 18 years old and younger.

#### Impact Upon Academic, Personal/Social, and Career Development

##### *Academic*

A review of the professional literature confirms that obesity can influence the academic development of a student. In a comprehensive study of 11,192 kindergartners (Datar, Sturm, & Magnabosco, 2004), overweight children were found to have significantly lower test scores in math and reading than their non-overweight classmates. Another study of adolescent girls found that overweight girls were

significantly more likely to report being held back a grade and being a poor student than average weight girls (Falkner et al., 2001). The same study reported that adolescent boys were significantly more likely to consider themselves poor students and more likely to drop out of school.

A 7-year longitudinal study followed a group of women who were obese adolescents, and found that they completed fewer years of school than average-weight women (Gortmaker, Must, Perrin, Sobol, & Dietz, 1993). In another longitudinal study, Ball, Crawford and Kenardy (2004) followed 7865 women, ages 18–23, for 4 years. They found that obese women were less likely to go to college or attend some type of post-high-school training. Also, in a comparison of 9957 adolescents in grades 7, 9, and 11, researchers found that overweight participants rated their school performance and educational futures lower than the non-overweight participants (Mellin, Neumark-Sztainer, Story, Ireland, & Resnick, 2002).

#### *Personal/Social*

The professional literature is rich with empirically based studies pointing to the negative influences of childhood obesity upon the personal and social development of an individual. In a study of 416 ninth- through twelfth-grade students, overt and relational victimization and dating status and satisfaction were measured to determine the relationship between obesity and peer relations (Pearce, Boergers, & Prinstein, 2002). Based upon computed BMIs, overweight females were found to be less likely to date and more likely to be victimized than non-overweight females. Obese males reported more overt victimization, thus experiencing less satisfaction with dating than

their average-weight peers. Additionally, obese males and females reportedly had fewer opportunities to engage in intimate romantic relationships.

The relationship between weight and bullying behavior among boys and girls, ages 11–16, was examined in another study (Janssen, Craig, Boyce, & Pickett, 2004). Boys and girls, ages 11–14, were more likely to experience relational victimization (e.g., withdrawing friendship or spreading rumors or lies) and to be the objects of bullying behavior (e.g., hitting, teasing, kicking, pushing, and threatening). There was no relationship between obesity and bully perpetrating for this age group. However, obese 15- to 16-year-olds were more likely to be the perpetrators of bullying behavior, as well as the victims of relational and overt bullying.

In a comprehensive study, Strauss and Pollack (2003) examined the social networks of 17,557 obese and non-obese adolescents using friendship nominations to measure the size of the networks. Although obese adolescents reported having the same number of friends as their non-obese peers, they received fewer friendship nominations. And, the overweight adolescents were more likely to receive no friendship nominations. The study also found obese adolescents to be more socially isolated when measured in terms of their participation in extracurricular school activities.

In another study that compared obese boys and girls to non-obese boys and girls, obese girls were less likely to hang out with friends, more likely to have experienced a serious emotional problem and feelings of hopelessness, and more likely to have attempted suicide (Falkner et al., 2001) than non-obese girls. Obese boys reported being less likely to hang out with friends, and more likely to feel that their

friends do not care about them. They also felt more hopeless, suicidal, and neglected by friends than their counterpart non-obese boys.

When Ball, Crawford, and Kenardy (2004) followed women ages 18 to 23 for 4 years, they discovered that obese women were less satisfied with their partners. In another longitudinal study following men and women for 8 years (beginning in adolescence), researchers found that obese participants of both sexes were less likely to marry and were more likely to have lower self-esteem (Gortmaker, Must, Perrin, Sobol, & Dietz, 1993). Another study of adolescents showed that obese participants experienced more emotional distress, which caused them to participate in more unhealthy behaviors, like eating more fatty foods, watching more television, and binge eating (Mellin, Neumark-Sztainer, Story, Ireland, Resnick, 2002).

### *Career*

There is evidence that obesity has a negative impact on some aspects of career development. A 7-year study of obese participants, beginning when they were between the ages of 16 and 24, revealed that they earned significantly less and were more likely to live in poverty than those who were not overweight (Gortmaker, Must, Perrin, Sobol, & Dietz, 1993). Additionally, the authors noted that employers tend to discriminate against and have lower expectations for obese employees.

A study reporting the future work/career aspirations of 7865 women ages 18 to 23, noted that overweight women were more likely to seek out self-employment opportunities or unpaid work that could be fulfilled in the home (Ball, Crawford, & Kenardy, 2004). The study also noted that overweight women were more dissatisfied with their careers.

## Counselor Interventions

To facilitate a comprehensive developmental counseling program, ASCA provides an excellent delivery system consisting of classroom guidance, individual planning, responsive services, and system support. Using this model provides a multitude of venues for implementing strategies aimed at addressing the problem of childhood obesity. It is beyond the scope of this article to provide an exhaustive list of ideas for each delivery method. However, the following suggestions should be a tremendous resource in determining ways to combat childhood obesity.

### *Classroom Guidance*

A curriculum designed to educate children about the relationship between physical activity and nutrition should be a part of every child's education. Whether provided by the PSC, physical education teacher, or classroom teacher, it is a message that must be carried to students if they are to understand the nature of the problem and how to combat it. Guidance lessons must be fun and presented in a variety of media if they are to be effective. In addition to providing basic information regarding healthy food choices and ways to become more physically active, children should be allowed to discuss personal barriers to achieving both of these goals. The ideas are endless when it comes to topics for discussion and ways to present them. Children may find the following information interesting and, possibly, shocking:

1. Soft drinks like Coca Cola and Pepsi contain the equivalent of 10 teaspoons of sugar (Van Staveren & Dale, 2004). The PSC could demonstrate this fact by putting 10 teaspoons of sugar in a glass of water and asking someone in the class to drink it. Schools make thousands, often millions, of dollars each year

by allowing soft drink companies to operate in their schools (Van Staveren & Dale).

2. Most of the fast food at places like McDonalds, Taco Bell, and Burger King is made up of 45% to 55% fat (Zametktn, Zoon, Klein, & Munson, 2004). One in five schools now allows fast food restaurants to operate in their schools.
3. Foods labeled “low fat” may actually be very high in calories. Students could be allowed to examine the labels of a multitude of low fat foods (e.g., low fat cookies, ice cream, and potato chips). Teaching students to read food labels could be beneficial.
4. Eating a “Super Sized” meal can be equivalent to eating an entire second meal. Pour a carton of “super sized” French fries on a plate to let students see how much food they are consuming. Display a “super sized” cup and add approximately 30 teaspoons of sugar to help students visualize how much sugar is in the “super sized” beverage.
5. By the time a child is 18, approximately 15,000 to 18,000 hours have been spent watching television (Van Staveren & Dale, 2004). That is equivalent to 1.7 to 2.0 years.

### *Individual Student Planning*

It is the responsibility of the PSC to provide students with the opportunity to set personal, academic and career goals. Goals related to physical fitness and healthier eating habits may also be incorporated into a comprehensive plan for every student and may coincide with a classroom guidance lesson. The PSC should encourage students to set reasonable and measurable goals. Sartori (2004) published a book entitled, A

*new start: One child's struggle with obesity*, which provides helpful worksheets for children and the PSC to use when setting fitness goals. Along with a story about one student's journey to a healthier lifestyle, the book also provides weekly activity charts, food and exercise journaling worksheets, tips for parents, and a copy of the United States Department of Agriculture's (USDA) Food Pyramid.

Certainly, students who are already obese or who are at risk for becoming obese may wish to address some very specific and immediate goals related to achieving a healthier lifestyle. While dieting is discouraged in children, replacing foods high in sugar and fat with more nutritious alternatives and increasing activity levels can result in weight loss. The PSC should take special care to consult with parents in these cases to ensure that these students are receiving proper medical care as well.

### *Responsive Services*

Perhaps the greatest opportunity for the PSC to impact the problems associated with childhood obesity is through the responsive services of individual and group counseling, consultation with parents, teachers, administrators and community partners, and referrals to appropriate individuals, hospitals or agencies.

*Counseling.* Overweight students often report feelings of loneliness, isolation, low self-esteem, and a lack of self-worth (Falkner et al., 2001; Mellin, Neumark-Sztainer, Story, Ireland, & Resnick, 2002; Pearce, Boergers, & Prinstein, 2002, Strauss & Pollack, 2003; Young-Hyman, Schlundt, Herman-Wenderoth, & Bozylinski, 2003). Individual counseling could be very beneficial in helping students address these feelings. Small groups comprised of carefully screened students are beneficial in providing a safe place to discuss these issues and, at the same time, overcome feelings of loneliness.

Although the school disciplinarian may have to become involved, counseling may also benefit those who are being mistreated or bullied by other students. A needs assessment will help identify students needing individual or group counseling services for problems related to obesity.

*Consulting with Families.* According to the American Obesity Association (AOA) (2002), families are the primary role models for children when it comes to eating habits and levels of physical activity. Researchers agree that long-term and short-term success rates are much higher when families are involved in programs designed to modify eating habits and increase activity levels (Blasi, 2003; Mellin, Neumark-Sztainer, Story, Ireland, & Resnick, 2002; Van Staveren & Dale, 2004; Zimetktn, Zoon, Klein, & Munson, 2004). Therefore, in order to work effectively with children, the PSC must consult with the parents or guardians to provide education and intervention strategies that can be implemented at home. The American Obesity Association offers the following suggestions for families; these recommendations are an excellent resource for the PSC to use when consulting with families. Suggestions 1–6 address physical activity, and 7–14 address eating habits:

1. Exercise regularly as a family. Define what you enjoy doing together (e.g., walking, biking, swimming, volleyball) and schedule a time to do it.
2. Spend weekends and vacations involved in activities that require physical activity (e.g., camping, skiing, sailing).
3. Join in a neighborhood or community activity center's planned sporting events program (e.g., basketball, baseball).

4. Involve the entire family in completing household chores (e.g., cleaning the house, washing and folding the clothes, mowing the lawn).
5. If children show an interest in a particular activity, enroll them in a class or sign them up for a local team (e.g., martial arts, gymnastics, baseball).
6. Monitor and limit time spent watching television, playing videogames, and surfing the internet.
7. Plan healthy meals for the entire family. Include an abundance of fruits, vegetables, and whole grains, and limit processed foods and foods high in fat and sugar.
8. Involve the entire family in meal preparation. Children enjoy this activity, and it can provide an excellent opportunity to learn about healthy eating.
9. Eat as a family. Too many families do not take advantage of this time to share the experiences of the day, which serves to further bond them as a family.
10. Eat only small portions at a slow, leisurely pace, allowing food time to digest and the body to feel a sense of fullness. Eating quickly usually means you have eaten too much.
11. Stock the pantry with an abundance of healthy snacks. Children cannot eat the high fat alternatives if they are not available.
12. Do not insist that children eat if they report not being hungry. The “clean-your-plate” philosophy is not a healthy one.
13. Never use food as a reward or punishment.
14. Avoid fast food.

*Consulting with teachers.* Teachers have tremendous impact upon the information received by students in the classroom. Counselors can talk to them at staff meetings, conferences, and informal “teacher’s lounge” encounters about the nature of the problem and the importance of providing information and intervention services to all students. Encourage them to include positive nutrition and activity “plugs” in their lessons whenever possible. Invite those who would like to do more to schedule a meeting with you to discuss the facilitation of a classroom guidance lesson in their classrooms. In addition, alert teachers to the needs of overweight children, and ask them to refer students who may benefit from counseling. Provide a staff development workshop on the impact of childhood obesity upon the academic, personal/social, and career development of students. Chances are that most teachers are unaware of the extent or the increasing nature of the problem. By reaching teachers, the PSC is reaching students.

*Consulting with Administrators.* School administrators are the key decision makers in any school system. Their active participation and support are critical for effecting legitimate change in curriculum planning and food service guidelines. The decline in physical activity programming, for example, can only be reversed when policy makers make it a priority. Illinois is currently the only state that requires students in grades kindergarten through 12 to take physical education classes every day, despite a recommendation that children get at least 60 minutes of exercise daily (Van Staveren & Dale, 2004). The PSC must consult with school administrators about the severity of this problem and the powerful, long-term implications for children, and encourage them to give physical activity a major role in the curriculum.

The American Obesity Association (2002) reported that the Centers for Disease Control (CDC) and several federal and state agencies, universities, and volunteer and professional organizations partnered to create “Guidelines for School and Community Programs to Promote Lifelong Physical Activity Among Young People.” These guidelines offer the PSC excellent ideas for working with administrators to bring about change:

1. Establish a school policy that promotes physical activity. Students should be involved in physical and health education classes daily.
2. Create a school environment that encourages physical activity for students and staff. Recess and school lunch breaks offer excellent opportunities for unstructured activity.
3. Following the National Standards for Physical Education, grades K–12 must include a formal physical education curriculum that encourages students to participate in activities that can be enjoyed throughout their lifetimes (e.g., dancing, walking, swimming).
4. Following the National Health Education Standards, grades K–12 must include a formal health education curriculum that addresses the components of a healthy lifestyle.
5. Competitive and noncompetitive extracurricular activities appropriate for a diverse group of children must be provided.
6. Training in health promotion must be provided to all members of the school community.

7. Health services (counselors) must assess the physical activity levels of students, help them determine what programs they might enjoy, and continually advocate for physical and health education classes in the school.
8. Community programs must be made available to provide extracurricular activities that meet the needs of all students.
9. Schools must continuously evaluate their programs to determine if they are meeting the physical activity needs of all students.
10. Schools must involve families in planning for more physical activity at home.
11. Parents/legal guardians must be encouraged to serve as role models.

Recognizing the need for schools to address their nutritional programs, the United States Department of Agriculture (USDA) and a coalition of five medical associations met and outlined a *Prescription for Change: Ten Keys to Promote Healthy Eating in Schools* (USDA, 2005). These guidelines were designed to help schools write their own prescriptions for change. The PSC should refer to these suggestions when consulting with school administrators concerning ideas to promote healthier eating programs:

1. Make sure that adequate funding is available for proposed nutritional program changes.
2. Involve students, parents, food service staff, educators and community leaders in creating a vision for the school's eating environment and an action plan to achieve it.
3. Pre-kindergarten through grade 12 staff will be trained to implement behavior-focused nutrition education.

4. USDA nutrition guidelines will be followed in the preparation of a variety of foods aimed at meeting the taste preferences of all students.
5. An appropriately scheduled lunch period will allow for healthy eating with friends.
6. Cafeterias will be designed with adequate serving areas to reduce the amount of time students must wait to receive a meal.
7. Cafeterias will reflect a pleasant environment, conducive to the social nature of meal sharing.
8. Students, school staff, parents, and community members will be encouraged to model healthy eating in the school cafeteria.
9. Only foods found in the Food Guide Pyramid will be made available outside of the school cafeteria.
10. Only foods that meet the nutritional goals of the school's program will be sold in addition to that made available in the cafeteria. Profit making will not drive this decision.

*Consulting with Community Members.* The influence of the community upon the healthy eating habits and physical activity levels of students is greater than might first be imagined. For example, are community parks and playgrounds well-equipped and easily accessible? Do these parks and playgrounds provide vending machines with healthy snack alternatives, like bottled water and whole grain foods? Are supervised after-school activities available? What is the availability of activity centers on nights and weekends? Is transportation provided? If fees are required, what type of support exists for low-income families? These questions, plus many more, are all vital to the ongoing

partnership that exists between the school and community in providing ongoing care for children.

Much has been written about the partnership between schools and soft drink and vending machine companies, with local schools earning a large percentage of the profits (Van Staveren & Dale, 2004). These lucrative financial partnerships have produced millions of dollars in extra funding for school districts. Many school officials feel they cannot afford to replace unhealthy foods with more healthy alternatives. However, when the San Francisco school district replaced soft drinks with water and fruit juices and vending machine candy with granola bars and fruits, profits rose, students behaved better in the classroom, and test scores improved (Van Staveren & Dale). Other states, like California and Texas, have also taken steps to ban unhealthy foods and sodas from their schools. Evidence of some momentum to make this a nation-wide trend is growing. In addition, the PSC can play a vital role in this movement by ensuring that community leaders and business owners, as well as administrators, understand the problems of childhood obesity. The PSC can also advocate for change and encourage action that will help meet the physical and nutritional needs of all children.

*Referral Services.* With approximately 15% of children being classified as overweight or obese (National Center for Health Statistics, 2002), it is conceivable that the PSC be required to refer students to other school support services or community agencies in order to meet their needs. For example, many school systems contract with private mental health providers to counsel a limited number of students at the school during the school day. These professionals could be utilized to help address the

problem. The school nurse is also an excellent resource for monitoring blood pressure and alerting parents to those at risk for more serious health problems.

Referrals to family physicians and pediatricians are imperative if the weight of a child causes concern. Many parents may be unaware of the health risks posed by their child's current weight, especially if one or both parents are also overweight. Many hospitals and community agencies also offer programs for overweight children, including treatment, aftercare, and ongoing support groups. Finally, licensed counselors in private practice or at community agencies are excellent resources for students who require mental health services beyond what the time restraints of the PSC will allow.

### *System Support*

Professional school counselors are charged with implementing comprehensive developmental programs that address the academic, personal/social, and career needs of all children. Finding time to address the many issues affecting the development of our youth makes the facilitation of a comprehensive program an incredible challenge. However, efficient system support activities ensure that the program runs according to plan. First, the PSC must consult and collaborate with teachers, administrators, and parents to gain support for proposed strategies to address childhood obesity. A commitment from school administrators is vital if the program is to be successful. Second, those involved in the implementation of the obesity program must be knowledgeable about the problem and its impact upon children. Additionally, professional development may be required for those who do not fully understand the relationship between obesity and academic, personal/social, and career development.

Those involved in the delivery of this program should be encouraged to read books and journal articles and attend workshops and seminars on issues related to childhood obesity. The PSC may want to prepare an in-service training for teachers and administrators. Meetings of the school's parent-teacher organization provide excellent opportunities for the PSC to address parents and caregivers about the many problems of childhood obesity. No matter the venue, educating the stakeholders is a critical component of the implementation of a successful program.

### Conclusion

The problems associated with increasing rates of childhood obesity are well documented, as are the long-term physical and psychological affects. Families and schools bear the burden of reversing this alarming trend. The American Obesity Association (2002) has noted that families and schools influence children most concerning their nutrition and involvement in physical activities. Professional school counselors are vital links between these two groups and are poised to affect great change. The delivery system designed by ASCA provides an excellent framework for providing a host of programs and activities to address childhood obesity. The documented effects of obesity on the academic, personal/social, and career development of children make attention to this problem a high priority. Programs must encourage students to increase their physical activity and choose foods that are more nutritious. Education and information services are needed at the prevention level, with more aggressive intervention strategies needed for those already overweight.

The professional counseling literature lacks information concerning the role of the PSC in addressing childhood obesity. A large body of medical literature defines the

problem and notes the long and short-term effects. Future research should examine what the PSC is doing, and assess and evaluate the effectiveness of various programs already in place. Outcome studies examining the effectiveness of different counseling intervention strategies in every one of the four program delivery areas (classroom guidance, individual planning, responsive services, and system support) are needed. Additionally, descriptive studies that identify best practices and propose ideas and program direction to the PSC will be valuable.

The school environment has evolved into one with the strictest emphasis on accountability and high-stakes testing. In the face of intense academic accountability, the PSC has provided a place where emotional and psychological needs can still be addressed. Drug use, teenage pregnancy, divorce, anxiety, depression, low self-esteem, bullying, and peer pressure are just a few of the many issues addressed almost daily by the PSC. These issues, plus hundreds more, will never be found on a standardized test, but have the potential to influence scores greatly. Obesity is another issue now disturbing a great number of our children and affecting their academic, personal/social, and career development. The stakes are high for many students, and the PSC can be the resource to bring together the necessary partners to institute change and offer hope.

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### Biographical Statement

Dr. Ballard is an associate professor of counseling at Southeastern Louisiana University, where she coordinates the CACREP-accredited school counseling track and supervises school counseling interns. Prior to coming to Southeastern, Dr. Ballard worked as a school counselor in middle and high schools. Dr. Ballard serves as a school counseling consultant for 3 school districts in Louisiana, and is currently involved in addressing the post-Katrina needs of area counselors, teachers, administrators, and students and their families.

Dr. Alessi is a professor of counseling at Southeastern Louisiana University, where she coordinates the CACREP-accredited community counseling track and supervises counseling students in their work with children and families. She also works extensively with eating disorders and cognitive development.