

RESEARCH You May Have Missed

UNIVERSITY OF CALIFORNIA
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RESEARCH YOU MAY HAVE MISSED . . . provides brief summaries of recent research relevant to youth development practice. It is designed to help youth development professionals keep up-to-date with contemporary research.

Editor's Note: These reviews focus on studies which examine factors that impact healthful living. Healthy living includes the physical, social, emotional, and mental health of youth.

- Agras, W.S., Hammer, L.D., McNicholas, F., & Kraemer, H.C. (2004).
Risk factors for childhood over-weight: A prospective study from birth to 9.5 years.
The Journal of Pediatrics, 145(1), 20-25.

The authors sought to identify the risk factors for childhood obesity, through a prospective longitudinal study, measuring a range of variables from birth to 9.5 years of age. The variables measured included measures that have been correlated with over-weight or obesity in the literature, such as breast-feeding habits, parental body mass index, children's temperament, parents concern over children's thinness, feeding habits, activity levels and sleep duration among others. At 9.5 years, 35 children were at the 85% percentile of BMI and considered over-weight by this definition. Researchers used logistic regression methods to identify direct and indirect risk factors based on the measures. Five independent risk factors for childhood overweight were found. The strongest was parent overweight, which was mediated by child temperament. The remaining risk factors were low parent concerns about their child's thinness, persistent child tantrums over food, and less sleep time in childhood. – overweight children slept about 30 minutes less. The authors identified different mechanisms of parent-child interaction that may lead to over-weight. The authors discuss these findings, suggesting that there is considerable interaction between parent and child characteristics in the development of

over-weight. Parent over-weight has a direct effect on child over-weight, but is also mediated by child temperament. It may be that temperament and over-weight are linked genetically. Alternatively, over-weight parents may be over-controlling the food intake behavior of children. A parent who is over-concerned about their child's thinness but who has a child who has rapid weight gain in the first six months, may be over-controlling the child's food behavior which disrupts the child's learning of self-control. The other risk factor identified included less sleep, which has been identified in other cross-sectional studies as well. In this particular study the authors found that the lack of sleep was accounted for by the difference in day time sleep. It could be that over-weight children had less activity during the day which may be why they were less tired and did not take a day time nap. The results of this study point to the dynamic interactions between genetic dispositions, temperament and parent-child interactions that may explain pathways towards childhood obesity. The findings are relevant for nutrition and health practitioners to consider the family as the target for prevention and healthy living efforts, rather than individual youth. -AS

- Crawford, P., Woodward-Lopez, G., Ritchie, L., & Webb, K. (2008).
How discretionary can we be with sweetened beverages for children?
Journal of the American Dietetic Association, 108(9), 1440-1444.

Consuming sports drinks, sodas, fruit drinks and other sugar-sweetened beverages continues to be a

significant risk-factor for childhood obesity. Although sweetened drinks are certainly not the only energy-

dense discretionary foods, they present a risky “triple threat,” with consumption increasing in three ways: (1) the number of people consuming; (2) portion size and (3) the quantity of servings consumed by individuals. In this editorial review of several research studies, the authors present evidence for recommended allowances for sweetened beverage consumption in youth. Research suggests that sugary beverages contribute to obesity because drinking liquid energy influences the human body differently than eating solid energy. In several studies, researchers observed that 60 percent of extra energy consumed as solid food was offset by adjusting one’s diet appropriately. However, when consuming the same proportion of liquid energy, less than 10 percent was compensated. An inability to respond to extra energy when consumed in liquid form may be related to poor recognition of feeling “full,” increased taste appeal of sweetened beverages and the perception that energy consumed through beverages “does not count.” The Dietary Guidelines for Americans and MyPyramid eating plans provide guidance for consuming discretionary energy. MyPyramid recommends that core foods provide the

greatest amount of energy, with a small amount (165 to 265 kcal for children with low levels of physical activity) allowed for discretionary energy. Since the discretionary energy allowance is so limited, especially as many core foods also consequently contribute to the discretionary allowance, there is little room for high-fat, high-sugar foods. The result of consuming sugar-sweetened beverages can have one of two results—either replacing the recommended core foods for a healthy diet and displacing important nutrients found in core foods, or exceeding recommended energy intakes. It is difficult to justify the consumption of empty energy when the energy could be consumed through more healthful alternatives (fruits, vegetables, whole grains, meats and dairy). Based on this evidence, the authors recommend children consume no more than one sweetened beverage each week. Additionally, food and nutrition professionals and advocates are encouraged to lead the effort, which may include promoting sweetened beverage-free environments for children, recommending water and milk as beverages of choice for children, and supporting regulatory actions to limit access and reduce the marketing of sweetened beverages. **-MB**

- Dodge, K.A., Greenberg, M.T., Malone, P.S., & Conduct Problems Research Group. (2008). **Testing an idealized dynamic cascade model of the development of serious violence in adolescence.** *Child Development*, 79(6), 1907-1927.

Researchers have long considered the factors that play a role in why some youth become chronically violent during adolescence. While there is a growing consensus that children who are at high risk for violent behavior can be identified early in life based on conduct problems, there has been an interest in examining whether there is a process through which minor conduct problems in early life may get transformed into serious violent behaviors in adolescence. Through earlier research, the authors described a developmental model of conduct disorder which suggests major domains impact one another to catalyze early conduct problems into new, more serious, violent behaviors in adolescence. The purpose of the present study was to clarify a cascade model of development, identifying the incremental roles life experience factors have on the development of chronic violence in adolescence. Seven domains of predictors of adolescent conduct problems have earlier been identified: early adverse social context; early harsh and inconsistent parenting; lack of school social and cognitive readiness; early behavior problems, lack of parental monitoring; and association with deviant peers. The model suggests that these factors intercorrelate, in a sequential manner, to contribute to violence in adolescence. The authors tested the model on 754 children from four sites, each in a different

state. Beginning in kindergarten and continuing through Grade 11, annual measurements were collected from multiple sources including the teacher, peer group, school records, mother, child, and interview ratings. In addition to the domains listed above, school and social academic failure was one of the domains for which data were also collected. Results indicated that each of the seven predictor domains was significantly related to adolescent violence, across both males and females, and each domain affected the impact of the prior domain and provided a significant increment beyond the previous domain. These results provide a developmental description of how violent behavior may grow across childhood and adolescence in a dynamic cascade. The reciprocal influences between child and parent are significant. Parents’ early discipline strategies have an impact on the child’s social and cognitive readiness for school, which affect conduct problem behavior, which cycle back to parenting behavior in early adolescence, which then affects youth’s interactions with peers. While the authors note that these trajectories can be deflected at each subsequent era in development, through interactions with peers, school, and parents, the study highlights some of the factors that can impede children living a socially and emotionally healthy life. **-RC**

- Haller, M., Handley, E., Chassin, L., & Bountress, K. (2010).

Developmental cascades: Linking adolescent substance use, affiliation with substance use promoting peers, and academic achievement to adult substance use disorders.

Development and Psychopathology, 22, 899-916.

Adolescent substance use, both alcohol and drug use, is closely associated with the substance use of peers or friends; peer use is the strongest predictor of an adolescent's substance use. The research evidence is mixed on whether this positive association is due to selection effects (adolescents selecting similar friends) or socialization (friends modeling or encouraging substance use), or both. Experimentation with substance use can result in no serious effects, or it can have cascading, long term negative effects. Substance use has been linked to poor academic achievement and failure. Adult substance use disorders may be an end link of a developmental chain resulting from academic failure and association with substance using peers. However, the distinction between academic success and substance nonuse is not entirely clear; college attending youth use more alcohol than do noncollege young people. This study examined the relationships among substance use in oneself and among one's peers and parents, and academic achievement in adolescence and young adulthood. The sample for this study was drawn from an ongoing study of children of alcoholics, and children of nonalcoholics were also included in the sample. Participants were followed over six response waves

beginning in adolescence (age 12-17) and continuing into young adulthood, during the time period 1988-2005. Nested models were developed from the data to examine developmental cascades. Children of alcoholics were significantly more likely to use drugs or binge drink at all time points. However, adolescent binge drinking was not associated with substance using peers. In the path models, significant positive relationships were found between parental alcoholism and substance use-promoting peers, and negative relationships between parental alcoholism and academic achievement. Having substance using peers was positively associated with drug use and negatively associated with college completion by age 25. College completion was negatively associated with the prevalence of a substance use disorder in adulthood, whereas association with substance using friends was a predictor of adult substance use disorders. The authors state that the findings provide support for a conceptualization of substance use disorder in adulthood as a developmental disorder, in that most adult substance use disorders did not originate in adulthood, but rather in adolescence. **-KH**

- Jago R., Baranowski, T., Baranowski, J.E., Thompson, D., & Greaves, K.A. (2005).

BMI from 3-6 years is predicted by TV viewing and physical activity, not diet.

International Journal of Obesity, 29, 557-565.

The objective of this study was to investigate whether diet, physical activity or TV viewing predicted body mass index (BMI) of children between 3 – 7 years of age. For this purpose, a tri-ethnic cohort of 3 – 7 year old children were followed for three years. Assessments included BMI, heart rate and physical activity assessment, diet (caloric intake), and TV viewing and sedentary behavior through yearly observations. The authors conducted a repeated measures regression analysis to investigate the relationships between the variables. Results indicated that TV viewing and physical activity had both significant main effects and

significant interaction effects with BMI between Time 1 and Time 2. The model accounted for 65% of the variance in BMI across the three study years. Findings suggest that both TV viewing and physical activity became stronger predictors as children aged, i.e., there were more effects in the third year compared to the first year for both variables. This means that 6 or 7 years may be a critical age when both TV viewing and physical activity affect BMI. For health practitioners the message is that reducing TV viewing and increasing physical activity in the age group of 6 and 7 years may be effective at preventing childhood obesity. **-AS**

- Neumark-Sztainer, D., Wall, M., Guo, J., Story, M., Haines, J., & Eisenberg, M. (2006). **Obesity, disordered eating, and eating disorders in a longitudinal study of adolescents: How do dieters fare 5 years later?**

Journal of American Dietetic Association, 106(4), 559-568

The objective of this study was to determine if adolescents who report dieting and different weight-control behaviors are at increased or decreased risk for gains in body mass index, overweight status, binge eating, extreme weight control behaviors, and eating disorders five years later. Participants of the study included a large and ethnically diverse (n=4,746) population of junior and senior high school students from 31 Minnesota schools. They were re-surveyed five years later to examine changes in their eating patterns and weight status. Variations in types of dieting that were captured included, 1) no dieting behavior, 2) healthful non-dieting behavior, 3) healthful dieting behavior, and 4) unhealthful weight control behaviors. Results indicate that at Time 1, 57% of the girls and 25.3% of the boys reported dieting. 57.8% of the females and 31.3% of the male subjects reported unhealthful dieting. At Time 2, approximately one fourth of the girls (27%) and boys (24.6%) were overweight. Neither dieting or weight control behaviors at Time 1 predicted any decreases in BMI or in overweight status at Time 2 in either girls or boys, however they did predict weight gain, especially in the case of

unhealthful weight control. Additionally, girls who reported dieting at Time 1 were five times more likely to report eating disorders five years later. The authors discuss their findings, suggesting that dieting in teens should not be considered normative behavior as it may be the first step in a progression to more severe weight control measures. In addition, dieting was counterproductive to weight management, especially for girls it increased the odds for over-weight status. The authors suggest that this may be because of how girls and boys may be interpreting the meaning of dieting differently. While for some teens dieting includes healthful behaviors, for others it includes unhealthful behaviors such as skipping meals and starvation, and for still others it did not even include any behavioral action, but rather a short term mindset rather than a long term behavioral change. This article is especially relevant for programs promoting healthy living in teens, nutrition professionals and health care providers as they have an important role in helping young people understand that dieting, particularly the use of unhealthful weight control behaviors, increases the risk for weight gain and other eating and weight-related problems. **-AS**

- Porter, J.S., Bean, M.K., Gerke, C.K., & Stern, M. (2010). **Psychosocial factors and perspectives on weight gain and barriers to weight loss among adolescents enrolled in obesity treatment.**

Journal of Clinical Psychology in Medical Settings, 17, 98-102.

The intent of this study was to understand the psychosocial well-being of obese adolescents and understand the barriers they perceive to making healthy lifestyle changes. The study included 135 obese youth in Virginia ages 11-18 who were enrolled in a weight management program. Two-thirds of the participants were African American and 62 percent were female. Families tended to be of higher socioeconomic status; 51% of participants had parents with a college degree or more. Overall, most youth (56%) reported being teased about their weight, and 30% reported other types of psychological trauma such as losing a loved one. 38 percent had received mental health treatment in the past, and 22% reported previous suicidal ideation. Most youth (69%) had medical issues such as asthma or

Type 2 diabetes. 84 percent of youth reported barriers to exercise, including medical conditions, lack of motivation or energy, or parents' work schedules. 69 percent reported barriers to healthy eating, including family and individual eating habits and family schedules not allowing for meal preparation. Personal preferences were cited as a barrier to both exercise and healthy eating (not liking exercise, or preferring less healthy foods). Youth who reported having had traumatic experiences tended to be less likely to attend the program, and less compliant with making lifestyle changes. These findings provide support for the importance of psychosocial factors in obesity as well as the significance of involving families in helping young people make healthy lifestyle choices. **-KH**

- Quintanilla-Dieck, M.D.L., Artunduaga, M.A., & Eavey, R.D. (2009).

Intentional exposure to loud music: The second MTV.com survey reveals an opportunity to educate.
The Journal of Pediatrics, 155(4), 550-555.

In 2009, Apple announced an impressive mile marker—more than 6 billion songs had been downloaded from the popular MP3 download store, iTunes. With the increasing popularity of MPS downloads and portable players among youth, the risks associated with preventable music-induced hearing loss (MIHL) are a great concern for health advocates. But do adolescents and young adults share in this concern? The featured article compares both awareness and behavior trends associated with listening to music. Music is of significant concern, as research suggests individuals will subconsciously tolerate much higher decibel levels for music than any other type of noise. Forty-five percent of youth listen to their MP3 player at 75 percent capacity or higher. According to OSHA standards, the maximum exposure time at this volume is 30 minutes. The researchers originally surveyed visitors of MTV.com

in 2002 and the comparative survey was administered in 2007, using a convenience sample of 2,500 visitors. The median age was 21.7. In comparison to the 2002 findings, the 2007 survey revealed that young adults are becoming increasingly interested in wearing earplugs or using a moderate volume level when properly educated. The impact of educational awareness increases when young people are educated by a health care professional or learn that musicians or peers also use ear protection. Importantly, findings indicate participants are willing to change their current behavior. In modeling MIHL education after other successful health awareness campaigns (“Designated Driver” campaigns, sunscreen promotions and seatbelt-use legislation) and increasing media coverage, youth will have greater opportunities to learn about the health dangers associated with excessive noise exposure and action they can take. **-MB**

- Sengupta, A., & Chaudhuri, A. (in press).

Are social networking sites a source of online harassment for teens? Evidence from survey data.
Children and Youth Services Review, doi:10.1016/j.childyouth.2010.09.011.

With more than 500 million users worldwide, Facebook—the leading social networking website—has gained remarkable popularity since its inception in 2004. In addition to social networking sites such as MySpace, Facebook and LinkedIn, internet technology also offers social experiences through instant messaging, online chat rooms and twitter. These sites enable individuals to strengthen connections with friends as well as establish new relationships through friend networks. Teens have become especially captivated by the opportunities provided by social networking sites, although the advancing technology also provides new ways for adolescents to engage in risky behaviors. This article strives to determine if social networking site access increases the likelihood of youth being targets of cyber bullying or harassment, establish characteristics of teenagers that make them more susceptible to online abuse, and investigate the impact of parental controls on cyber bullying and harassment. Research findings suggest a significant correlation between the risk for harassment and cyber bullying and youth who upload photos of themselves, provide personal information about their school, phone number and

instant messenger identity, flirt with strangers, and visit online chat rooms. Additionally, female teenagers are 250 percent more likely to be victims of online abuse. Researchers determined that simply having a social networking site profile doesn’t necessarily increase the likelihood for online abuse—rather, it is how young people interface with each other (or strangers) within the social networking environment. Although results suggest that teens who use their computer in a private setting, away from the watchful eyes of parents, are more likely to be bullied, results also suggest that installing an online monitoring system to track youth activity has no significant association with the likelihood of online abuse. The authors conclude the article with a message for parents: nothing is as crucial in deterring cyberbullying and harassment as discussing with children the potential dangers associated with the internet. Parents have the unique ability to regularly communicate with teens about safe online practices, including keeping critical information secure and immediately reporting inappropriate use on social networking sites. **-MB**

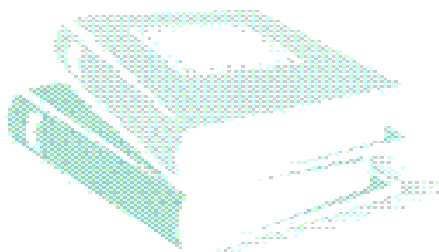
- The, N.S., Suchindran, C., North, K.E., Popkin, B.M., & Gordon-Larsen, P. (2010). **Association of adolescent obesity with risk of severe obesity in adulthood.** *JAMA*, 304(18), 2042-2047.

This study looked at longitudinal trends in obesity using the National Longitudinal Survey of Adolescent Health (Add Health). Participants in Add Health were in 7th to 12th grade during 1994-95, and were resurveyed three times through 2007-09. This analysis followed youth who were obese or severely obese in Wave II (1995-96) to examine their weight status over time. Among youth under age 20, severe obesity was defined as a BMI more than 20% higher than the 95th percentile, while for adults 20 or older, severe obesity was defined as a BMI of 40 or above (equivalent to an adult of 5 feet 6 inches weighing 250 pounds or more). A substantial

proportion of obese adolescents became severely obese in adulthood, whereas fewer than five percent of normal weight adolescents became severely obese in adulthood. Females tended to have higher rates of severe obesity than males. Just over half of obese adolescent females became severely obese in adulthood, compared with 37 percent of obese adolescent males. The authors state that there is a need for health interventions in obese adolescents during the transition to adulthood, since during that time period, obese youth are at high risk for becoming severely obese adults. **-KH**

Book Reviews

. . . on topics relevant to youth development will be periodically published. We encourage submissions for future editions. Reviews may be sent to Ramona Carlos (rmcarlos@ucdavis.edu).



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