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Date: May 2019

From: Society of Pediatric Psychology, American Psychological Association Division 54

To: Pediatrician Colleagues and Other Pediatric Medical Providers

Re: Summary of Research Findings Relevant to Pediatric Care

Following is a summary of published research findings in the Society of Pediatric Psychology peer reviewed journals (and several other journals featuring the work of pediatric psychologists/trainees). We believe this information may be helpful to your own practice, with citations provided for further information. Please contact me with feedback or questions. Sharon.Berry@ChildrensMN.org
Sharon Berry, PhD, LP, ABPP

The Role of BMI and Self-Esteem about Appearance on Adolescent Smoking Initiation

Murphy, C. M., Janssen, T., Colby, S. M., & Jackson, K. M. (2019). Low self-esteem for physical appearance mediates the effect of body mass index on smoking initiation among adolescents. *Journal of Pediatric Psychology*, 44(2), 197-207. doi: 10.1093/jpepsy/jsy070

Adolescents with overweight/obesity who begin smoking have much higher risk for negative health consequences because of the individual and interactive risks associated with both excess weight and smoking. Our study aimed to understand how excess weight impacted the likelihood of initiating smoking among adolescents. More than 1,000 middle school students in the northeastern US were followed for approximately three years. Having a higher body mass index increased the risk of experimenting with smoking cigarettes, even after accounting for the effects of age, gender, socioeconomic status, and race. We also found that adolescents who weighed more were more likely to feel negatively about their appearances and bodies (e.g., reported not being happy with the way they looked), and this negative perception helped explain who would experiment with smoking in the future.

Health-care providers are encouraged to discuss weight status with patients and parents and to recommend interventions for youth with overweight or obesity to reduce associated health consequences in a way that is not stigmatizing or judgmental (e.g., using neutral words in conversation and documentation) to decrease the odds that the messages will negatively influence the patient's perceptions of themselves and their appearance, and the cascade of future risks that may result. Family-based weight and lifestyle interventions may have the additional benefit of increasing the opportunity for bonding within the family. This may offer an alternative source of rewards to adolescents and reduce the likelihood of smoking initiation or progression. Emphasis should be placed on identifying youth who may be at-risk for smoking including screening measures that assess susceptibility to smoking and internalization of weight bias.



**American Academy of Pediatrics Conference Presentation in NOLA: Melanie Noel, PhD
Saturday, October 26, 2019 1:00 PM – 6:00 PM**

H2132 - Joint Program: Section on Integrative Medicine, Section on Anesthesiology and Pain Medicine, and Section on International Child Health

Key findings:

1.) Parents who were more anxious before their child's tonsillectomy, had children who remembered the surgery as being scarier than it actually was (e.g., they initially said it was 2/10 and then 1 month later remembered it as being 6/10).

2.) The ways that parents reminisced/talked to their children 2 weeks after the surgery really influenced how children later remembered the surgery. Parents who were elaborative (asked a lot of open ended questions and provided new details) and talked more about positive emotions and aspects of the surgery had children who remembered the surgery in more positive ways (e.g., as being less painful and scary e.g., initially rated a 6/10 and remembered it as a 2/10). Parents who talked more about the pain while reminiscing (e.g., using words like hurt, sting, ouch) had children who remembered the surgery as being worse than it actually was.

3.) Parents don't naturally reminisce with children about past painful events as adaptively as they reminisce with children about past sad events. This suggests that this is a ripe area for education and intervention. Ours is the first study to examine parent-child reminiscing about past pain and to isolate what are adaptive versus maladaptive ways of talking to children to foster more positive and accurate pain memories.

We are really excited about these findings because it means that we can teach parents ways to talk to their kids after surgeries to foster more positive memories. With the help of parents who participated in this observational study, we have developed a memory reframing intervention that we are now using with children undergoing tonsillectomies at Alberta Children's Hospital. This simply involves teaching parents and children to reminisce in elaborative ways that emphasize positive aspects of the past painful experience, correct negative exaggerations in recall, and helping to boost children's self-efficacy about their ability to cope with pain. Given that children's memories for pain can influence how they handle pain and medical care well into adulthood, we think this is really powerful as we may be able to foster positive pain memories in children to set them up for better health care experiences for the rest of their lives.



Feasibility, acceptability, and preliminary effectiveness of an adaptive text messaging intervention for adolescent weight control in primary care.

Jensen, C. D., Duraccio, K. M., Barnett, K. A., Fortuna, C., Woolford, S. J., & Giraud-Carrier, C. (2019). *Clinical Practice in Pediatric Psychology*, 7 (1), 57-67. doi: 10.1037/cpp0000268

Interventions for adolescent weight control are often difficult for patients to access because they are not commonly provided in primary healthcare settings. We tested the feasibility, patient acceptability, and initial efficacy a brief intervention for adolescents delivered in pediatric primary care. Patients received either a single-session of motivational interviewing plus diet/physical activity counseling or the same intervention enhanced with 6 months of thrice-daily intervention text messages. On average, participants receiving the text message-enhanced intervention demonstrated moderate reductions in body mass while those receiving only the in-person intervention did not. Patients rated the intervention as highly satisfactory and interview data indicated that accessing an intervention located in primary care was desirable. Weight-related quality of life improved in both groups. We recommend that pediatric healthcare providers consider partnering with behavioral health specialists to offer weight control interventions in primary care. Our findings suggest that even brief in-person weight control interventions can be effective, particularly when paired with mobile health strategies to increase intervention reach.

Psychiatric Diagnoses and Weight Loss among Adolescents Receiving Sleeve Gastrectomy

Mackey, E.R., Wang, J., Harrington, C., Nadler, E.P (2018). *Pediatrics*, 2018; July 142(1): e20173432.

This observational cohort study evaluated rates of mental health diagnoses of adolescents with severe obesity presenting for consideration for bariatric surgery (sleeve gastrectomy) and associations of those diagnoses on weight loss following bariatric surgery. The goal was to determine if premorbid mental health diagnoses decreased likelihood of success following surgery, in order to inform referrals for surgery and care for adolescents with comorbid obesity and mental health conditions.

Two-hundred twenty-two participants were followed from mental health evaluation (53 of those did not pursue surgery) through one year post surgery. Rates of mental health diagnoses were high in this population with an average of 1.3 diagnoses per patient, 41% qualifying for a depressive disorder, 26% for an anxiety disorder, 21% for ADHD, and 8% with an eating disorder. Despite high rates of mental health diagnoses in this population, there was no association of pre-surgical mental health disorder or number of disorders with weight loss outcomes up to one year following surgery. Notably, participants lost a significant amount of weight, with an average of 55% of excess Body Mass Index lost by 12 months post surgery. Notably, demographics, including age, gender, and race/ethnicity of participants also did not predict weight loss outcomes following surgery.



The authors conclude that adolescents with comorbid mental health diagnoses and severe obesity should not be disqualified from receiving surgery. However, they do note that the high rates of mental health disorders seen in this population merit continued pre-surgical screening in order to refer these individuals to appropriate mental health care.

Sleeve Gastrectomy for Youth with Cognitive Impairment or Developmental Disability.

Hornack, S.E., Nadler, E.P., Wang, J., Hansen, A., Mackey, E.R. (2019), *Pediatrics* 2019 Apr 15. Published online first, April 15 2019 at pediatrics-aappublications.org.

This observational cohort study evaluated the association of weight loss following sleeve gastrectomy for severe obesity and the presence of cognitive impairment and developmental delay. The study also examined the association of IQ with weight loss outcomes. The study followed 64 adolescents (17 of whom had cognitive impairment or developmental delay) from pre-surgery up to 2 years following surgery. Neither the presence of cognitive impairment, nor IQ scores predicted weight loss, with both groups evidencing an average of 58-59% of excess BMI lost at 12 months following surgery. There was a trend for a higher rate of change in percent of excess Body Mass Index lost for those with cognitive impairment/developmental disability, suggesting that they may do better than their typically developing peers.

The authors conclude that sleeve gastrectomy should be considered as a potential treatment of severe obesity for all adolescents, regardless of intellectual ability. As with all adolescents, decisions to pursue surgery should consider risks and benefits of the surgery, ability to provide assent (and for a guardian, consent, if assent is unable to be obtained), and specific supports necessary for ensuring safety for those adolescents with cognitive impairment/developmental disability considering surgery.

Comparison of the Diabetes Management Trajectories of Hispanic Versus White non-Hispanic Youth With Type 1 Diabetes Across Early Adolescence.

Nicholl, M.C., Valenzuela, J.M., Lit, K., DeLucia, C., Shoulberg, A.M., Rohan, J.M. ... Delamater, A.M.. (2019). Comparison of diabetes management trajectories in Hispanic versus White Non-Hispanic youth with type 1 diabetes across early adolescence, *Journal of Pediatric Psychology*, jsz011, <https://doi.org/10.1093/jpepsy/jsz011>

The current study examined differences between Hispanic and White, Non-Hispanic (WNH) youth with type 1 diabetes (T1D) across early adolescence, comparing self and caregiver-report of family conflict, caregiver autonomy support, youth diabetes regimen responsibility, and blood glucose monitoring over a 3-year-period. Youth with T1D (178 WNH and 33 Hispanic youth participants) and maternal caregivers (174 WNH and 32 Hispanic maternal caregivers), completed measures and downloaded their monitor blood glucose monitoring frequency data at 4 time-points.



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At baseline, Hispanic youth had significantly poorer glycemic control, more family conflict, and fewer blood glucose checks on average compared to WNH youth. The study also found similar developmental trajectories for both WNH and Hispanic youth with diabetes: increasing independence for regimen tasks and decreasing parent autonomy support over early adolescence. However, Hispanic mothers reported more gradual changes in diabetes management compared to WNH youth. This study suggests that Hispanic youth are at risk for disease-related disparities such as poor glycemic control and blood glucose monitoring, but also family-related sequelae (e.g., family conflict). In addition, the study suggests that Hispanic youth with T1D have similar trajectories to WNH youth with T1D but that more research is needed to best understand how cultural factors may impact the deterioration of disease outcomes during adolescence. Future studies are needed to further identify culturally competent strategies for supporting families of youth with T1D during adolescence and into the transition to adulthood.