**References / Annotated Bibliography**


   
   a. **Summary/Annotation**: Watson et. al. conducted a study to see the effects a community based obesity treatment intervention called Getting Our Active Lifestyles Started (GOALS) had on children. The authors believe that the behaviors parents or caregivers have on food and physical activity, will ultimately play an important part of how children’s behaviors will form. The study included 143 children and 168 parents and/or caregivers. The interventional group of children had to attend weekly practical physical activity sessions with their parents/caregivers, siblings, etc. and had sessions on healthy dietary behaviors. The goals were to encourage lifestyle changes that would be healthy for the family as a whole. Additionally, the study aimed to allow children who were obese to lose weight in a healthy way with the help of changes made to the family as a whole, both in diet and physical activity. A few of the dietary objectives the researchers wished to pass on to participants were to cook more meals from fresh, increase vegetable and fruit intake, reduce the frequency of takeaways, reduce portion size, increase water consumption, eat a healthy balanced diet, and read food labels and become more aware of what they are eating. The physical activity objectives were to help families increase their activity by engaging active transport (walking to school), active play (at home, out or with friends), structured exercise (zumba, etc.), lifestyle activity (taking the stairs instead of elevator), and sport participation. Each family who participated in this study were given a personal mentor who helped them track their progress through the study and met with them every few weeks. The results showed a statistically significant decrease in BMI from the start of the intervention until the end. The children also showed higher self-esteem post-intervention and changes were noted in all of their physical activity levels. The researchers also concluded that when the whole family was involved and attended sessions they succeeded more versus those who did not family members attend such sessions. The researchers acknowledged a limitation of the study to be whether this treatment intervention would be helpful long-term without the help of the safe and supportive environments that were provided. Further research is needed to understand how these interventions can be implemented to best promote long-term changes in children and families.


    
    a. **Summary/Annotation:** Many et. al. conducted a study to see the effects aerobic exercise training for a period of 8 weeks has on minority adolescents who were obese and insulin resistant. The study included eleven morbidly obese minority adolescents and had them participate in an exercise training intervention that was supervised. All participants were recruited from an outpatient adolescent clinic and advertisement. There were three exercise training interventions that differed in volume and intensity. The researchers concluded that when exercise training was performed at a moderate-intensity for 180 mins a week, it provided an improvement in insulin action and helped with inflammation in morbidly obese individuals. The limitations of this study is the small population size and that the study lacked a control group for sedentary individuals. Additionally,
the way the study recruited the insulin-resistant controls was unethical, deemed by the IRB. Further research is needed on the efficacy of exercise training with different intensities, volumes, duration concurrently performed with a nutrition program.


   a. **Summary/Annotation**: Barnett et. al. conducted a study on the effects screen time has on percent body fat in secondary school aged children. Participants, who were 744 Canadian adolescents between the ages of 12-13 years old, completed questionnaires (self-report) on the use and length of time of television and computers. The survey study lasted 12 cycles (57 months) for 6 years. The children’s weight, height, BMI, and subscapular skinfold thickness were measured in the 1st and 19th cycle, and were used in the analysis of data. Screen time and physical activity were also reported in the surveys. The researchers concluded that there may be evidence to suggest that high levels of screen time may be a cause of increased percent body fat, as children are reducing their time of physical activity, and instead increasing screen time (i.e. remaining sedentary). The results showed that physically inactive boys and physically active girls who increased or maintained their screen time showed the most increase in body fat. 90% of teens were shown to be watching more TV than the recommended level. This study did show some bias as the surveys were self-reporting.


   a. **Summary/Annotation**: Craven et. al. conducted a study to test the effects of an enhanced nutrition curriculum given to ninth-graders that was taught within their health class. The objective of the curriculum was to allow a promotion of a healthy weight in high-schoolers. There were 214 students in the intervention group and 185 students in the control group all from the ages of 13-19 years old. The percent of overweight students in the intervention group was 41% and the percent of overweight students in the control group was 39%. The students in the intervention class were given 6 hours of nutritional education that was integrated in the health class. The impact of education was seen thru the students measurements for height and weight pre and post the experiment, and eating behaviors that were self-reported. The results showed that a decrease in the mean BMI was greater for the interventional group versus the control group. The interventional group also had a higher proportion of students who increased their fruit and vegetable intake. All variables were analyzed with SSPS using a sample t-test and Chi-square test. These results allowed the researchers to conclude that a hands-on education of nutrition was a good strategy to
help promote a healthy weight. The limitations of the study were that the length of the intervention was too short and that BMI was used as the only measurement of weight status. Additionally, the students self-reported their intake, which may be a bias. Further research is needed to support such claims.


### Image References

1. **MyPlate Image**

2. **Smoothie/Fruits Image**

3. **Tasty Veggies at Lunch Image**
   a. United States Department of Agriculture Food and Nutrition Service. Team nutrition - graphics library.  

4. **Family Eating Together Image**
   a. Ratcliff C. 5 tips to avoid mindless eating at the dinner table.  

5. **Sport/Soccer Image:**
   a. Cardio Trek. Workout ideas for overweight teenagers.  

6. **Eating In Front of the TV Image:**
7. Support Image
   a. Free Image from Google - https://pixy.org/4232967/
8. Phone/Text Image
   a. Free Image from Google -
9. Support Group Image
10. Numbers 1-4 Images
    a. Free Images from Google