Iron Kids: An Integrative Approach to Pediatric Weight Management

Michaela Kelly, OTS; Dr. Penny Rogers, Capstone Faculty Advisor; Dr. Danny Burgess and Rachel Dear, Capstone Mentors
The University of Mississippi Medical Center's Center for Integrative Health

Overview of Capstone Site

Center for Integrative Health (CIH): A UMMC outpatient clinic that is a branch of the Department of Psychiatry and Human Behavior and had their grand opening in 2019. It was established to provide transformative patient care to individuals in the community suffering from a chronic condition.

Location: The UMMC CIH is located in the Holmes Community College Wellness and Fitness Center in Ridgeland, MS.

Relevant Theories: The mission and vision of the UMMC CIH was established based on the innovative approach of integrative medicine. Integrative medicine utilizes a team of multiple disciplines that deliver holistic, patient-centered care that helps patients overcome barriers towards establishing a healthy lifestyle.

Vision: "The CIH provides transformative, patient-centered care through a unified team approach. Our mission is to awaken each patient's natural capacity for healing through engagement and targeted lifestyle changes that empower them to evolve from a state of illness to a life of wellness." The CIH is committed to bridging the gap between illness and wellness for patients through targeted interventions based on an intimate understanding of the whole person. We promote the body's natural capacity for healing by applying principles of disease prevention and facilitating behavioral changes appropriate to each patient. Our goal is to educate and empower patients as they evolve from a state of illness to a life of wellness.

Services Offered: Patients begin care with nurse practitioners who perform the initial holistic evaluation to gain a full understanding of the patient’s overall health behaviors. The nurse practitioners then select services at the CIH that will benefit the patient based on their needs. The CIH offers several services such as lifestyle medicine, psychotherapy services, physical therapy, nutrition counseling, psychiatric medication management, and pediatric weight management.

Literature Summary

Broken healthcare system: In our current healthcare system, scientific advancements under the biomedical model focus solely on the physical disease and neglect other determinants of health. If these health factors are maladaptive and go undetected, chronic conditions are developed.

The plague of chronic conditions: The current biomedical model fails to treat chronic conditions, which is causing the rate to rise in the US. However, the rate is climbing even higher in MS because it contains more disadvantaged groups. Unfortunately, MS has the highest childhood obesity rate, and 25.4% of children aged 9-11 years in MS.

Integrative medicine: Integrative medicine offers a few solutions to the current broken healthcare system and could better serve patients with chronic conditions. Instead of the biomedical model, children who are obese often require a multidisciplinary, family-oriented, and integrative approach for effective weight management. Integrative medicine practices meet this need by providing a collaborative effort between multiple providers that facilitate behavioral changes in pediatric weight management patients to prevent the development of chronic conditions in adulthood.

Needs Assessment

Phase I Needs Assessment: A 17-item semi-structured interview guide that was delivered via focus group interviews during CIH's weekly team meeting.

Phase I Needs Assessment Summary: The physical therapist, Rachel Dear, desired to expand the newly established pediatric services to include group treatment.

Phase II Needs Assessment: Informal discussion during monthly staff meeting.

Phase II Needs Assessment Summary: The CIH recently partnered with UMMC Pediatric Weight Management Clinic, and the PT was seeing more children who were overweight, who previously developed Iron Kids for children with disabilities but wanted it to be modified to benefit their pediatric weight management clients.

Gap Analysis Statement

After extensive review of the literature and conducting Phase I and Phase II Needs Assessments with the CIH treatment team, the capstone project was finalized. In order to meet the needs of the pediatric population in MS, the capstone student modified and implemented Iron Kids, a fitness and educational program that utilized an integrative approach to pediatric weight management.

Goals for Capstone Project Implementation

Goal 1: Finalize capstone project and recruit participants by the end of week 3

Goal 2: Implement Iron Kids in weeks 4-6

Goal 3: Measure effectiveness of Iron Kids by the end of experience

Goal 4: Educate CIH team members on how to sustain Iron Kids by the end of experience

Project Development and Implementation

Iron Kids Program

Iron Kids Stronger Every Day

Each week, the children received an educational handout, Home Exercise Program, and goal sheet. These were developed by the capstone student to support their learning in the topic of the week.

Iron Kids Educational Materials

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Targeted Outcomes of Iron Kids

- Each week, the Iron Kids program successfully taught children that living a healthy lifestyle is fun. 100% of parents addressed their child's success in weight loss and maintenance.
- Iron Kids successfully taught children about the benefits of physical activity, the rate of childhood obesity can be reduced or even reversed. Treating childhood obesity can benefit disadvantaged groups. Unfortunately, MS has the highest childhood obesity rate, and 25.4% of children aged 9-11 years in MS.
- Iron Kids successfully taught children that living a healthy lifestyle is fun. 100% of parents addressed their child's success in weight loss and maintenance.

Iron Kids Educational Materials

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Project Summary and Future Recommendations

Limitations: Limited space in the fitness center relegated to the CIH for children's programs, insufficient attendance to Iron Kids sessions across an 8-week span, time limited to one-hour sessions, a list of time passed between sessions due to inclement weather, and lack of true multidisciplinary approach.

Future Recommendations: Shorten the amount of sessions, possibly to 6-weeks, to reduce attendance burden. Expanding beyond one hour to provide ample time for learning and activities. Improve multidisciplinary approach by involving specialized providers to deliver information in Iron Kids sessions.

Conclusion: Iron Kids successfully taught the four target populations. The capstone student also addressed sustainability by providing an Iron Kids Facilitator Handbook for future facilitators. This contained weekly educational materials. Ultimately, the Iron Kids program successfully addressed childhood obesity and could potentially reduce this burden in the state of Mississippi at the CIH.

References available upon request.