

Recruitment in a Pediatric Wellness Initiative, Nutrition Wellness

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Minority individuals, particularly children, are disproportionately confronted with an increased risk for obesity, diabetes, and other chronic illnesses (Price et al., 2012). The healthcare system plays a critical role in treating and managing chronic disease. However, healthcare reach and access remain limited. Nourish Wellness is a flexible, clinical- community pediatric wellness initiative in a community- based clinical setting. Nourish Wellness partners with adolescents and their families to impact health routines, patterns, habits and long-term health. For this specific study, the objective was to describe participant recruitment for the clinical community-based pediatric wellness initiative. Those with eligibility for the program included individuals ages 5 to 16 years who have conditions or are at risk for conditions related to obesity, hypertension, and type two diabetes. Convenience sampling was conducted by primary care physicians, school nurses, and school counselors. Anthropometric and clinical measures were implemented for both patients and caregivers. Validated questions included a brief interview checklist that documented quality of life, demographics, and past/current medical history of each participant and caregiver. Statistical analysis determined characteristics of those originally engaged in Nourish Wellness. Findings are presented and conclusions offered to inform the continued success of Nourish Wellness.

The Centers for Disease Control and Prevention estimate that 19 percent of children 2 to 19 years are obese. Children who are Hispanic and non-Hispanic Black have a higher obesity prevalence (26% and 22%, respectively) than children who are non-Hispanic white (who are around 14%) (Centers for Disease Control and Prevention, 2022). Obesity prevalence was 19 per-

cent among children and adolescents in the lowest income group compared to 11 percent among those in the highest income group (Centers for Disease Control and Prevention, 2022). Children who are obese are at risk of developing cardiometabolic diseases and face significant quality-of-life challenges in the present and future. Healthcare system-based interventions have been limited in success of reach by their inattention to socio-contextual factors. Food insecurity, limited access to safe places to be physically active, and barriers to transportation to clinical and community resources are all critical systemic challenges traditionally found in communities with limited resources that contribute to higher obesity rates and inhibit adherence to healthy lifestyles. Therefore, clinical-community interventions must be expanded to populations facing health disparities. Additionally, clinical community interventions must be implemented in locations accessible to populations in the greatest need of improved health outcomes and quality of life.

The flexible, clinical-community pediatric wellness initiative gives children and their families an individualized wellness plan and connectivity with resources. A multidisciplinary team consisting of a pediatrician, nurse, pharmacist, dietitian, kinesiologist, child life specialist, psychologist, and social worker provides collaborative care, including an individualized wellness plan, to the child and his/her family. Nourish Wellness aims to partner alongside adolescents and their families, with the outcome that the children's health routines, patterns, and habits can be positively influenced in the long run.

The objective of the current study was to describe participant characteristics for a one-year clinical commu-

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nity-based pediatric wellness initiative, Nourish Wellness.

Participant characteristics were utilized to describe those who enrolled with Nourish Wellness. Those with eligibility for the program included individuals ages 5 to 16 years who have conditions or are at risk for conditions related to obesity, metabolic syndrome, hypertension, and/or type 2 diabetes. Exclusion criteria included anyone participating in another wellness or weight loss program. Researchers used convenience sampling. Primary care physicians, school nurses, and school counselors referred up to 40 patients.

Validated questions included on a brief interview checklist measured the quality of life, demographics, and past/current medical history.

The child intake form measured the child's habits, medical history, patient and family characteristics, date of birth, race, ethnicity, gender, primary care provider, and health insurance.

Participant current and past medical information included information on diagnosis and treatment of typical medical conditions, surgeries, allergies, and medications.

Anthropometric measures included participant height, weight, and body mass index. Both height and weight were measured using a scale and a stadiometer. The body mass index was calculated using participant weight and dividing it by the square of the height.

Researchers used SPSS to describe the characteristics of those originally engaged in the program, including frequencies and other appropriate descriptive statistics. Fourteen individuals participated in the study. The majority were male (n=10, 71.4%) and black or African American (n=8; 57.1%). Out of these 14 patients, 10 of the participants' ages were reported. The youngest participant was 10 years, and the oldest participants was 19 years. The mean age of all ten of the reported recruits was 14.36 years (sd=.054 years). All patients (n=14) reported having a primary care provider as well as health insurance, with the majority utilizing Medicaid (n=9; 64.3%).

Many of the patients were faced with chronic illness, diabetes (n=4; 28.6%), pre-diabetes (n=4, 0.50%), a history of heart disease in family (n=7; 50%), asthma (n=4; 28.6%), and abdominal, stomach, or digestive problems (n=4; 28.6%). Mental health conditions also were stated with patients reporting psychiatric, psychological, or emotional disorders (n=4; 28.6%), depression (n=5; 35.7%), and anxiety (n=8; 57.1%). Most of the recruits (n=9; 64.3%) had never participated in weight management practices in the past despite almost every patient (n=13; 92.9%) reporting that someone in the family is overweight.

The majority of the recruits (n=8; 57.1%) had a strong growth mindset ($\bar{x}=20.57$, $sd=3.897$). The remaining patients (n=3; 21.4%) had growth with some fixed ideas or fixed with some growth ideas (n=3; 21.4%). No one had a strong fixed mindset.

Participants consumed between 1 to 4 snacks per day with an average of 2.29 snacks (sd= 1.139) per day. For servings of fruit per day, the patients consumed 0 to 6 servings per day. On average they consumed 1.57 (sd=1.651) servings per day. For servings of vegetables per day (n=12), patients ranged from 0 to 2 servings per day. The average was 0.75 (sd=0.64) servings per day. The number of dairy participants had ranged from 0 to 2 servings per day and on average participants had 0.86 (sd=0.863) servings per day. Patients (n=9) who reported having 12 oz. of sugar sweetened (ssw) beverages per day ranged from 0 to 4 12oz. beverages per day. Participants on average had 1.33 (sd= 1.413) 12 oz. beverages per day. Figure 1 shows some unique findings of participants' eating habits.

Most patients (n=14) who reported eating while watching tv or playing on device said they often did this (n=8; 57.1%). Secret eating (n=14) was reported by 35.7% (n=5) of participants.

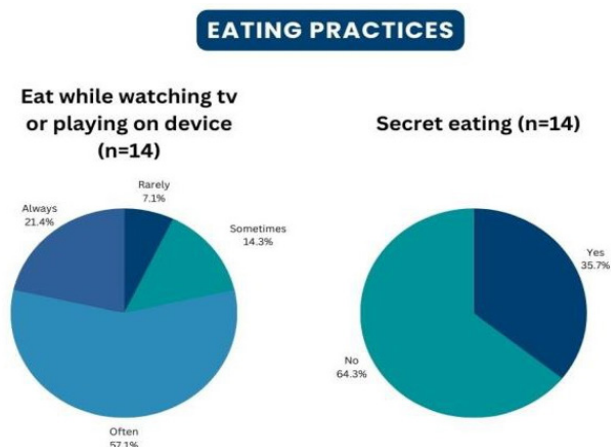


Fig. 1. Eating Practices of Nourish Wellness Recruits.

Physical activity practices of patients (n=14) were reported by days per week. The range was from 0 to 7 days per week. On average the patients exercised 3.64 (sd=2.590) days per week (sd=2.590).

The amount of screen time patients had in hours per day ranged from 2 to 16 hours per day. On average, participants spent 6.21 (sd=4.246) hours per day on a screen.

The systolic blood pressure of the participants (n=9) measured in mmHg was on average 110.78 mmHg (sd=7.513) and the diastolic blood pressure (n=9) was on average 68.67 mmHg (sd=6.928). Body mass index (n=8) ranged from 23 kg/m² (healthy) to 41 kg/m² (obese). The average body mass index of patients was 32.01 kg/m² (sd=7.41) revealing that the patients were on average obese.

Limitations included recruitment through primary care physicians and lack of engagement with the Hispanic population. In terms of the body mass index, z scores should be calculated and compared as the study progresses.

Data reveal the average participant was male (n=10, 71.4%), black or African American (n=8; 57.1%), 14.36 years old, insured under Medicaid, had never participated in weight management practices in the past despite having a family member who is overweight, and had a strong growth mindset. The average participant also consumed 2.29 snacks, 1.57 servings of fruit, 0.75 servings of vegetables, 0.86 servings of dairy, and 1.33

12oz. ssw beverages per day. This data reveals a need for nutritional guidance for patients. The average patient exercised 3.64 days a week and spent 6.21 hours a day on a screen. One potential goal for patients could be to decrease screen time and add in more exercise. The average systolic blood pressure was 110.78 mmHg, and the average diastolic blood pressure was 68.67 mmHg. Finally, on average the patient would be obese with a body mass index of 32.01. As the study progresses, body mass index should be compared to reveal if there has been a change in the study.

Statement of Research Advisor

Kendall assisted in supporting baseline data collection, data analysis, and reporting for an Auburn University Creative Works and Social Impact Scholarship funded initiative. She was able to describe participant characteristics for a one-year clinical community-based pediatric wellness initiative, Nourish Wellness.

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Authors Biography



Kendall McCallum is a sophomore-year student pursuing a B.S. degree in Nursing at Auburn University. She has the desire to one day open her own clinic similar to Nourish Wellness.



Dr. Alicia Powers serves as the Managing Director for the Hunger Solutions Institute. Dr. Powers holds a PhD in Nutrition and Food Systems from The University of Southern Mississippi as well as a MS and BS in Nutrition and Food Sciences from Auburn University.