Direct Service Providers’ Facilitators and Barriers to Providing Optimal Nutrition for Adults With Disabilities

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Background: Adults with disabilities are at greater risk for health problems that can be prevented and managed through diet and lifestyle modifications. Research reveals direct support professionals (DSPs) who serve adults with disabilities have limited nutrition knowledge, making it difficult to serve and promote healthy eating.

Objective: Identify DSP’s barriers and facilitators to nutrition education and promotion of healthy dietary patterns to improve the nutrition of adults with disabilities.

Study Design, Settings, Participants: This study was part of a larger formative study, seeking to understand how to use social media to educate DSPs on nutrition. This qualitative study interviewed 18 DSPs working in group homes and day programs from 5 different organizations throughout New Jersey. Sessions were conducted in a combination of 8 one-on-one interviews and focus groups both in person and via Zoom. Interview questions related to food preferences and dietary practices of the clients served.

Measurable Outcome/Analysis: Interviews and focus groups were audio-recorded and transcribed. Three members of the research team reviewed the transcripts separately to make a list of preliminary themes. The research team met to discuss, finalize, and collapse preliminary themes.

Results: DSPs self-reported facilitators include: recognize benefits of healthy eating for themselves and clients; make nutrition and eating fun to promote healthy dietary patterns; and motivate to overcome obstacles in work settings to promote healthy eating for clients. DSPs self-reported barriers include: clients’ preferences and knowledge around nutrition; lack of communication throughout the care process; and limited resources to implement nutrition programs.

Conclusion: While barriers exist to implement healthy food choices in group homes and day programs, DSPs recognize the benefits of healthy eating and have motivation to overcome obstacles. When educating DSPs, program development may consider ways to provide fun, accessible, and easy-to-understand nutrition information that can be adopted in a variety of settings.

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Evaluate Grocery Store Access Influence on Food and Beverage Shopping Habits of Meal Kit Intervention Participants

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Background: Low food access is defined as >1 mile and >10 miles from the nearest grocery store for urban areas (suburban/urban) and rural areas, respectively. Communities with low access have difficulty obtaining nutrient-dense foods as they are often also food deserts. Healthy meal kits (MK) can increase access to nutritious foods, especially in low-access areas.

Objective: To determine if grocery store (GS) access influenced food and beverages shopping habits of MK intervention participants.

Study Design, Settings, Participants: Families with low income and ≥1 child, in rural (N=39), suburban (N=24), and two urban (N=47) communities received ingredients and instructions to prepare three dinner meals/week for six weeks. Participants completed a demographic survey at baseline and a consumer choice survey at baseline, after ≥1 month exposure to MK and at long-term follow-up (LTFU).

Measurable Outcome/Analysis: Demographics, distance to a GS, food and beverages shopping habits were analyzed using descriptive statistics. The Wilcoxon Signed Rank test was used to determine significance.

Results: Participants (N=110) were non-Hispanic (95.5%) and female (91.8%) with an annual household income of <$35,000 (82.6%). In the rural community, participants (59.0%) had high GS access and while those in the suburban (83.3%) and urban communities (89.4%) had low access. After MK exposure, participants changed the frequency of their shopping habits at a supercenter (p=0.015), convenience store (p=0.022), and restaurant (p=0.023). Participants shopped less frequently at a supercenter, convenience store, and restaurant per week and month with no change in the shopping frequency for the supercenter and convenience store at LTFU. Participants shopped more frequently at a drug store (p=0.022), from an online grocery delivery/pick-up service (p=0.008), and restaurant (p=0.023) at LTFU.

Conclusion: Overall, participants with any access shopped less frequently at the supercenter, convenience store, and restaurant, and sustained those changes for supercenter and convenience store at LTFU. This suggests that participating in a meal kit program influences where and how often food is obtained during participation, but not after program cessation.

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Evaluate the Impact of a Healthy Meal Kit Intervention on Food Security and Fruit and Vegetable Intake at Post and Follow-up

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**Background:** Food insecurity is a prevalent issue in families with low income and is associated with poor consumption of fruits and vegetables (FV). These families face many barriers to meeting FV recommendations including decreased access, limited culinary skills, and time. Meal kits may offer an innovative solution to overcoming these barriers.

**Objective:** To evaluate the impact of a healthy meal kit intervention on food security status and FV intake.

**Study Design, Settings, Participants:** Main preparers of food (N=110) in a household with at least one child were recruited from rural, suburban, and urban communities to participate in a six-week meal kit intervention. Meal kits included three meals per week with the ingredients to feed four people, recipes, and indirect nutrition education. Demographic data were collected at baseline. Food security (FS) status and self-reported food intake were collected at baseline, post-intervention, and at six-month long-term follow-up (LTFU) using the USDA 18-item Household FS Survey Module and short Healthy Eating Index (sHEI) Screener, respectively.

**Measurable Outcome/Analysis:** Demographic data were analyzed using descriptive statistics. FS scores/statutes and FV intake were compared using paired t-tests.

**Results:** Participants were on average 44.0±12.4 YO and primarily female (92.5%). Most (96.2%) fell below 200% of the 2021 federal poverty line and faced food insecurity (62.4%). FS scale scores significantly improved from baseline (4.8±4.0) to posttest (3.3±3.6, p<0.001). For those who completed LTFU (N=85), FS scale scores weren’t significantly different from posttest (3.4±3.7) to LTFU (3.0±3.2, p=0.05). Fruit intake significantly improved from baseline to post by 0.45±1.42 servings/day (p<0.001), and vegetable intake significantly improved from baseline to post by 0.27±1.32 servings/day (p<0.05). There was no change in FV intake from post to LTFU.

**Conclusion:** Overall FS scores and FV intake significantly improved from baseline to post with no significant changes at LTFU. Results suggest that a healthy meal kit program can improve FS scores and FV intake as well as promote sustained FV consumption and FS in families with low income.

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Evaluating Barriers Perceived by Participants from Various Communities Enrolled in a Healthy Meal Kit Intervention

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**Background:** Families with low income face many barriers to eating healthfully. Affordable meal kit (MK) programs can address barriers such as time and cost by simplifying meal preparation. Research is needed to determine whether MK usage affects the perception of barriers to utilizing the service.

**Objective:** To examine how participating in a MK intervention affects barriers identified by participants at baseline.

**Study Design, Settings, Participants:** Families with ≥1 child, residing in rural (N=39), suburban (N=29), and urban (N=42) communities received ingredients and instructions to prepare three meals/week during a six-week study at no cost. Participants completed a demographic survey at baseline and a consumer choice survey (CCS) at baseline and post.

**Measurable Outcome/Analysis:** Demographic data were analyzed using descriptive statistics and barriers indicated in the CCS were compared from baseline to post using the crosstab analysis. Significance was determined using the Wilcoxon Signed Rank Test.

**Results:** Participants (N=110) were primarily female (91.8%) and non-Hispanic (95.5%). Most participants had heard of a MK prior to the intervention (76.1%), thought about purchasing a MK (72.3%) but hadn’t previously purchased a MK (84.1%). The average household (4.4±1.7) had a gross income <$50,000 (95.4%). Participants (58.7%) indicated that cost was less of a barrier to using a MK after completing the intervention (p<0.001). Similarly, participants indicated that not knowing enough about MKs (46.8%), limited options (45.0%), and time commitment (41.5%) were less of a barrier to MK usage (p<0.001). Participants indicated no change in barriers related to comfort shopping in person, concerns about quality/freshness, the safety of ingredients, healthfulness of the food, home delivery, portion, cooking enjoyment, and taste preference.

**Conclusion:** Participants perceived several factors as less of a barrier to trying or using a MK at post-intervention, with no change in other barriers. More research is needed to understand how participation influenced some barriers to using MK, such as cost, and determine potential modifications to MK to address unchanged barriers.

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Exploring COVID-19 Related Beliefs and Dietary Behavior Among University Students

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**Background:** The COVID-19 pandemic caused immense physical disruptions in the U.S. The Health Belief Model is a valuable framework to understand COVID-19 risk involving individuals’ perceptions of benefits, barriers, and self-efficacy. Preventive health behaviors entail fruit and vegetable consumption for immune benefits, hand-washing, and wearing indoor masks.

**Objective:** The purpose of this survey research is to examine COVID-19 related beliefs and self-reported fruit and vegetable consumption among college students.

**Study Design, Setting, Participants:** A cross-sectional survey based on the Health Belief Model was administered to a convenience sample of 304 undergraduate students at Montclair State University.

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