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Optimizing enrollment in pediatric obese patients: reflections on recruitment characteristics

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Abstract

Clinical research involving children and adolescents with obesity is challenging due to recruitment, transportation barriers, parents/guardians working multiple jobs and the need to coordinate the schedule of the participant and the parent/guardian. We describe recruitment efforts and successes for a longitudinal observational study of adolescents with obesity.

Keywords

enrollment; pediatric obesity; recruitment

Introduction

Pediatric obesity has become a prominent health disparity among differing socioeconomic statuses (SES) and ethnic minorities. In 2012, approximately 12.7 million (17%) children ages 2–19 years in the United States were classified as obese (1), of which approximately 5.8 million (38%) (2) and 7.2 million (56.7%) (1) were from lower SES and ethnic/racial minority groups, respectively. Given the high burden of obesity and the implications it has for the population's health status, clinical research in pediatric populations is needed.

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There are many challenges associated with clinical research involving adolescents, among which is participant recruitment (3). The necessity to engage multiple family members in pediatric clinical research may complicate recruitment and cause investigators to modify timelines, enrollment sites, and inclusion/exclusion criteria (2). For longitudinal pediatric clinical research, the challenge to recruit effectively is compounded due to the time commitment that parents and children must both make for the extended duration of the study (3). Lower SES and ethnic/racial minority groups are often difficult to enroll in clinical research due to barriers around transportation, language and parents/guardians working multiple jobs (4).

We describe an expansive recruitment strategy and the components that yielded the greatest enrollment for a longitudinal study of adolescents with obesity as a guide for other investigators studying a similar population.

Recruitment strategies

Our target participant was 8–17 years of age, body mass index (BMI) 95th percentile, otherwise healthy, English or Spanish speaking. Our goal was to enroll 220 participants that met these criteria over a 2-year time period.

We began our recruitment at two university-affiliated clinics. We anticipated that these clinics would be sufficient for all recruitment, but quickly discovered that although recruitment was efficient (i.e. high rates of enrollment), it was limited by the census of the clinic and was not going to meet our enrollment goal. Therefore, we expanded the scope and duration of our recruitment efforts to 89 various organizations/events: talking to site champions (clinics, schools, religious organizations); direct recruiting at community events (health fairs, expos, 5 k races, adolescent weight loss programs); flyers and pamphlets placed in public and private sites (libraries, community recreation centers, gyms (Curves, 24 h Fitness, etc.), government buildings, grocery stores, university/college campuses, hospitals/clinics); and public service announcements (radio and online community calendars). The most efficient recruitment method was a champion in the university pediatric clinic (45.9%) and community pediatric clinics (30.6%).

Although we recruited participants from almost 90 discreet locations/events, including over 20 settings in which face to face contact was made, we failed to meet enrollment goals and only enrolled 124 participants over 4 years. However, we did learn some valuable insights into effective methods of recruitment for a pediatric longitudinal obesity study.

What was successful?

We identified characteristics (factors) of recruitment that maximize enrollment for this type of study. Successful recruitment was influenced by three factors: the presence of a local study champion, recruitment setting, and data collection setting. This was evident as we examined the proportion of successfully recruited participants vs. number of approached participants. The characteristics of the places that yielded the most participants were clinical locations where we had a study champion (i.e. a person who was part of the community in which we were attempting to recruit who was passionate about the study and its goals), where we could make face to face contact to enroll participants, and where we could

perform data collection on-site. This confirms previous studies, which have suggested that successful recruitment and retention strategies included community-based efforts (5), the utilization of face-to-face recruitment techniques (6), and coordinated efforts between the research team and community clinics (6).

We were surprised to enroll about 50% low SES Hispanic participants when they were not our target population and they make up only 22.3% of the population. This is important as minority populations have traditionally been excluded from research. The reason we believe that we had this noteworthy result is because we refined our recruitment according to the aforementioned factors.

Another surprising finding was the lack of enthusiasm from schools. Local schools were approached with the idea of reaching large numbers of students, thereby reaching many potential participants. Remarkably, only a few schools showed any interest in participating in the study. These interested schools were typically private and, although a champion for the study was present, the student bodies largely did not meet BMI enrollment criteria.

Based on our experience, the most successful recruitment strategies for a longitudinal study of pediatric obesity include finding clinic-based champions in university-based and community-based clinics where data collection can occur.

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