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Adapting a tertiary-care pediatric weight management clinic to better reach Spanish-speaking families

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Abstract

Pediatric obesity continues to be an epidemic and affects Hispanic children disproportionately. Recent recommendations outline a step-wise approach to the treatment of overweight and obese children, culminating in tertiary-care, multidisciplinary programs. We detail here how our tertiary-care, family-based, pediatric weight management clinic addressed the problem of few Spanish-speaking families enrolling in treatment after referral by adding a Bilingual Case Manager. Utilizing a family-centered, high-contact, personal approach, our program increased the number of Hispanic families enrolling over ten-fold. Further, outcomes in Hispanic families were equal to or better than other racial/ethnic groups. Lessons learned from this experience may benefit other obesity treatment programs trying to improve care of Spanish-speaking families.

In the U.S., among Hispanic children between 2 and 19 years old, 40% of boys and 36% of girls are overweight or obese.[1] Within the past two decades, obesity prevalence in Hispanic youth has risen from 14% to 26% among boys.[1, 2] Over 5% of Hispanic children have a BMI greater than the 99th percentile for age and gender, a dramatic increase over the previous decade.[3] Such an alarming increase demonstrates the need for an immediate, effective, and accessible care for this population that so desperately needs treatment. [1]

As stated in the 2007 Expert Recommendations for the Treatment of Child and Adolescent Overweight and Obesity, treatment should follow a staged approach, emphasizing the use of patient-centered communication to motivate families.[4] Advanced stages of treatment (stages 3 and 4) feature expert teams practicing comprehensive, multi-disciplinary approaches; the most intensive treatments occur within a pediatric tertiary-care center. However, these recommendations are based on limited evidence. Advanced- stage obesity programs lack guidance for determining the most appropriate methods to reach and care for Hispanic children and families. To better meet the needs of this population, our program sought to address barriers that hindered obesity treatment for Hispanic families.

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BRENNER FIT

The Brenner FIT (Families In Training) Program, established in 2007, is a multi-disciplinary pediatric, family-based weight management clinic, comprised of a pediatrician, dietitian, family counselor, physical therapist, and exercise physiologist. Brenner FIT accepts children by physician referral only, between the ages of 2-to-18, who are obese (body mass index [BMI] 95th percentile for age and gender) with one or more obesity-related co-morbidities, including dyslipidemia, insulin resistance, fatty liver, orthopedic problems, sleep apnea, or hypertension. Treatment is divided into three 4-month phases, with families attending clinic visits approximately 14–18 times over one year. Visits occur bi-weekly during the first four months, then monthly afterwards. Motivational interviewing (MI) is used to elicit behavior change within the entire family unit[5–7]. All family members are invited to set goals, both individually and collectively, not just the child. Physician visits occur following each treatment phase to review laboratory studies, BMI, and overall progress. Brenner FIT's treatment approach has been described previously.[8, 9]

HISPANIC POPULATION

Our initial approach to treating Hispanic families relied on professional interpreters, consistent with most clinical practices and recommendations from the US Department of Health and Human Services.[10] Spanish-language interpreters attended intake and follow-up visits, and translated materials were provided for families. Within the first ten months of operation, 28 Spanish-speaking families were referred to Brenner FIT; however, only one elected to begin treatment. Given North Carolina's rapidly growing Hispanic population (11% of the referral populace), greater clinic participation was expected.[11] Such low Hispanic representation in clinic indicated the need for improved access to treatment. To address this issue, Brenner FIT recruited a bilingual case manager (BCM) with extensive research experience in the local Hispanic community.[12] As a result, we began "Mejor Salud, Mejor Vida" (Better Health, Better Life) as the Spanish-language division of the clinic.

STRATEGIES TO ENGAGE AND RETAIN

Culturally-sensitive retention strategies were developed providing a framework for regular interaction by phone and mail, and building positive clinician-family relationships from initial contact.

1. Building relationships from the beginning

Upon physician referral, the BCM immediately contacts families to explain treatment processes and expectations in the family's native language. Research with low-income Hispanic populations has indicated disconnected phone service is a significant barrier to patient follow-up,[12] thus, gathering alternative contact information from the start and determining the best method for reaching each family are important steps. These families did not receive automated reminder messages or initial contact phone calls or letters in English; the process was streamlined to the BCM initiating and continuing contact. Other strategies include: BCM having face-to-face meetings with the family instead of orienting to the program by phone (see following); inviting other family members to this first meeting; and having initial meetings in a community location.. Due to a 3- to 9-month wait list to begin treatment, families are also encouraged to contact the BCM with questions or changes in information before their intake visit.

2. Program orientation

To prepare families for treatment, Brenner FIT encourages them to watch an online orientation; however, many Hispanic families do not have internet access. We adapted this

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step so that such families could complete their orientation face-to-face with the BCM. This allows clinicians to ensure that families understand treatment, emphasize the commitment required, and give them an opportunity to express concerns. This interaction aided the BCM in building trusting relationships with families.

3. Non-traditional, "close" interaction via phone coaching

Close, comfortable, and comprehensive support is vital given the intensive nature of obesity treatment, and phone coaching is a valuable tool when families cannot attend clinic. The BCM makes regular phone contact with families, utilizing MI during each interaction. Regular interaction draws attention to each family's needs, allowing clinicians to identify barriers and assess readiness for treatment. This frequent follow-up with families included: the BCM to facilitate access to needed resources, help with resource assistance applications, and provide information about community resources and health needs.

4. Spanish materials with culturally-sensitive translation

All our educational materials are revised for culturally appropriate translation by professional medical translators. Since most patients and their families are of Mexican descent, materials are translated specifically for them by back translating into Mexican Spanish and then pilot testing. Parent and patient literacy often present a challenge, and we continue to modify our educational materials to meet the needs of our Hispanic patients.

5. Accessible treatment in a community setting

Spanish-speaking patients are seen at a community center located within a local YWCA. This atmosphere is less intimidating than a hospital, and offers free parking and easy access to treatment. Families also attend their initial orientation at the YWCA community center, and only travel to the hospital for intake and follow-up appointments with the Brenner FIT physician. Amenities within the community center also allow hands-on teaching for families, including family-based physical activity and cooking classes.

Brenner FIT interventions involve members of the treatment team (family counselor, dietitian, physical therapist) meeting with the family, typically two team members at a time for an hour. These visits entail: review of previous goals, progress made, barriers and challenges encountered, problem solving, and identification of new goals. With these new goals, focused education is provided, and tracking and monitoring is established. This treatment was modified to allow the BCM to lead this process. The BCM trained with each team member to understand their discipline and approach and how to be extend to Hispanic families. Most visits included the BCM with an additional team member, which is determined by what goal the family is focused on (i.e. dietitian if a nutrition goal, family counselor if a behavioral goal).

OUTCOMES

Within the first year of implementing the BCM, 13 Hispanic families began treatment, compared to only 1 family prior to the BCM. Currently, 16% of clinic patients are Spanish-speaking, which better reflects the referral population.

Hispanic children in the program were not as obese as the general population of Brenner FIT, and more received Medicaid insurance (Table 1). Our tailored approach also improved retention in Spanish-speaking families, with significantly fewer Hispanic families dropping out at 4 months, and 70% of families successfully completing the year-long program, higher than Caucasian and African-American families (approximately 50%). Given the high rate of attrition from multidisciplinary programs (usually higher than 50%), this is a remarkable

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outcome.[13] There were no significant differences in weight outcomes between children in Mejor Salud and Brenner FIT by statistical analysis (SAS Enterprise Guide version 4 with SAS version 9.1, Cary, NC) (Table 1).

LESSONS LEARNED

Utilizing recruitment and retention methods developed in prior research, the BCM applied the following strategies to successfully increase retention and treatment adherence in Hispanic patients:

- Build relationships from the beginning through prompt contact
- Conduct program orientation face-to-face with the BCM
- Provide non-traditional, "close" interaction via phone coaching
- Use Spanish materials with culturally-sensitive translation
- Provide accessible, family-based treatment in the community

After implementing these strategies, the number of Spanish-speaking families engaging in treatment increased significantly. Compared to families of other racial/ethnic backgrounds, these families were equally successful, exhibiting improvement in weight status and program adherence, with over two-thirds completing the full year of treatment. Using experience gleaned from research, Brenner FIT's adaptation of a tertiary-care pediatric weight management clinic may provide a model for other programs trying to reach and engage minority populations. It may also present a new method for treating high-risk or treatment-resistant populations who struggle with obesity.

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Table 1

Characteristics and outcomes of study population, November 2007-January 2011

Characteristic*	**Mejor Salud, Mejor Vida**	**Brenner FIT**
N	44	251
Mean age in years (±s.d.)†	11.1 (±3.04)	11.9 (±3.47)
Gender		
Female	58%	48%
Mean BMI, kg/m2 (±s.d.) †	31.9 (±6.5)	37.2 (±9)
BMI Z-score†	2.471 (±0.5353)	2.603 (±0.5049)
Race/Ethnicity, % (N) †		
White		53% (133)
African American		40% (100)
Hispanic	100% (44)	
Other		7% (18)
Health Insurance, % (N) †		
Medicaid	70% (31)	49% (121)
Commercial	27% (12)	47% (115)
Other	2% (1)	4% (10)
Single parent household	24% (10)	38% (92)
Outcomes		
Change in BMI z-score, 4 months, (±s.d.)	−0.0604 (±0.1352)	−0.0421 (±0.1099)
BMI z-score improvement, % (N)	67% (24)	68% (88)
Attrition at 4 months, % (N)*	16% (7)	36% (90)

*Some variables with missing data (totals may not equal 44 or 251), and percentages may not equal 100% due to rounding

†Significant differences between groups by chi-square, Fisher's exact test, or t-test at p 0.05.