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INTRODUCTION

Nearly 15%¹ of residents in Bamberg County, South Carolina (SC) have diabetes, a rate nearly 1.5 times the national average. Losing the only hospital in Bamberg County in 2012, low average per capita incomes (\$19,136)² and the rural nature of the county limit access to comprehensive medical care. African Americans (AAs) have a 42% higher diabetes prevalence than Whites¹ and comprise 61.3% of Bamberg County residents².

Research shows that recruitment and retention of people in rural communities, especially AAs, are challenging due to mistrust of researchers, lack of health care provider infrastructure referring patients to research, limited transportation, and perceived absence of personal or societal benefit³.

OBJECTIVE

Develop, implement, and adapt a community-engaged diabetes self-management intervention study in Bamberg County, SC and enhance impact through innovative recruitment and retention strategies.

METHODS

The Bamberg Diabetes Coalition initiated this community-driven study by identifying diabetes management as a priority and inviting academic researchers to help develop an intervention.

Through public forums and focus groups, community members stressed the importance of community leader support, locally-employed study interventionists, and the impact of building rapport and trust.

Feedback led to a randomized-controlled study exploring the feasibility of two interventions of locally-employed medical home/ community extenders:

- Community health worker in-home visits
- Nurse interventionist telephone “visits”

STUDY DESIGN, CHALLENGES, AND SOLUTIONS

Inclusion Criteria:

- 18-75 years
- Bamberg participating primary care practice (PCP) patients from nearby counties, diagnosis of diabetes *and*
- Hospital, emergency room, or urgent care patient *or*
- PCP referral of patient with uncontrolled diabetes



Participant and Horace Britton (CHW); Mary Brown (nurse)



Intervention:

- Administer eight intervention sessions over 3 months
- Collaboratively identify primary health concerns and plan behavior goals

Evaluation:

- Monthly telephone surveys assessing health behaviors
- Medical record review

| Challenges | Staff Solutions |
|---|---|
| Smaller participant pool from Orangeburg hospital than expected | Recruitment expanded to include: <ul style="list-style-type: none"> - Bamberg participating PCP referrals* - Bamberg Urgent Care - PCP patients to include surrounding counties |
| Study coordinating center located 1.5 hours away from study sites and primary care practices | Weekly teleconferences instituted that were essential for: <ul style="list-style-type: none"> - Ongoing training - Open communication and feedback - Advocacy for study staff, participants, community |
| Technology challenges in the rural areas | Portable Wi-Fi hotspots for staff Video or in-home consent option |
| Inconsistent participant access to phones or gift cards | Study phone accessible Gift cards available for pick up or delivery |
| Inability to meet study deadlines due to multiple life challenges for both participants and staff | Flexibility in study schedule allowed Change study group if physically/mentally necessary |
| Additional support needed for intervention nurse | Second intervention nurse hired |
| Participant not comfortable sharing income, depression symptoms, or alcohol practices | Interventionists administered sensitive survey questions, income asked at study close-out after trust was built |
| Strict hospital IRB limit PIs to consent participants | Local study coordinator assigned as the Community PI |

* Participating Primary Care Practices agreed to make referrals only if participants were randomized to an intervention.

RESULTS

All study modifications were implemented by December.

- Recruitment conducted June - December, 2015; study activities conducted June, 2015 – March, 2016

RECRUITMENT

- Study modifications led to a 3-fold increase in recruitment from an average of 4.3 in the first 4 months to an average of 12.3 recruits/month in the final 3 months of recruitment. (CHW n=26; Nurse n=27; UC n=5)*

RETENTION

- There were 10 participants consented who did not complete the study (CHW n=2; Nurse n=7; UC n=1)
- There were no additional dropouts during the last three months.

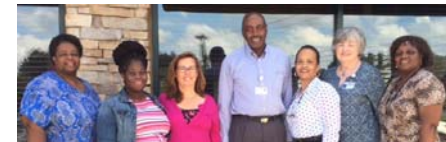
* Study groups were: community health worker (CHW), nurse interventionists (Nurse) and usual care (UC).

CONCLUSIONS

This community-engaged study, which initially struggled with recruitment and retention, would not have been successful without the engagement, collaboration, and partnership with the community and locally-employed study staff.

The study staff's suggested modifications significantly improved study recruitment and retention. Additionally, satisfaction improved for participants, study staff, and PCP practices which may improve future partnerships and participation in research.

Health facility use and cost analyses will be conducted in 2017, one-year post study.



Study Team from left to right: Helen Sherman, RN; Latasha Priester; Lynn Glenn, NP; Horace Britton, MS; Melissa Sherman, MA; Carolyn Jenkins, DrPH, MSN, RD, LD ; Mary Brown, BSN. Not pictured: Ramona Anderson, LPN; Dana Burshell, MPH

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