Use of Community-Based Participatory Research toward Eliminating Rural Health Disparities

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Abstract

Purpose/Aims: Rural communities throughout the US continue to sustain disparities in healthcare access and outcomes despite decades of health research and action. Community-based participatory research (CBPR) has been successful in empowering communities through research and tailored interventions toward the elimination of health disparities. The purpose of this study was to ascertain the community perspective on health issues within a CBPR project framework. Specific goals included identification of county-level key health issues, assessment of health related risk factors, and development of community capacity to deal with significant health challenges while working within a community-university partnership.

Methods: A CBPR needs assessment was conducted using multi-method research through key informant interviews, a telephone survey of community residents and a survey of medical professionals to ascertain the community perspective on health issues.

Results: Findings showed a wide range of health needs. Epidemiology assessment of county data revealed excess mortality due to cancer, diabetes, heart disease, chronic respiratory disease, accidents, infant mortality and suicide. Key informant interviews showed the top perceived health-related problems to be lack of insurance coverage, obesity, lack of education, and lack of consistency in primary care. Telephone survey findings revealed the top perceived health problems were poor quality or insufficient health services, lack of insurance coverage, obesity, lack of education, and lack of consistency in primary care. Telephone survey findings revealed the top perceived health problems were poor quality or insufficient health services, lack of insurance, heart disease, cost of care/poverty, cancer, drug abuse, diabetes, lack of senior care, obesity, and pediatric/prenatal care.

Implications: This study provides a specific application of CBPR to help reduce rural health disparities. Data was used to develop a Childhood Obesity Task Force Summit to combat the local obesity epidemic. A Healthy Week Initiative was also implemented. This research can serve as a model for future research and community engagement scholarship as it relates to CBPR as a paradigm to identify, address and eliminate health disparities.

Keywords: Rural health, Healthcare disparities, Community-based participatory research

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Health disparities afflicting rural communities across the United States are well documented (AHRQ, 2008). Residents of rural areas experience more health disparities than their urban counterparts. Literature supports that they are more likely than urban residents to be poor, elderly, in poorer health, uninsured and have chronic health conditions (Bodenheimer, Chen & Bennet, 2009; U.S. Department of Health and Human Services [USDHHS], 2010).

Addressing ongoing rural health disparities presents a challenge. A growing body of literature has demonstrated that community-based participatory research (CBPR) is one research method that can lead to improved health outcomes in disparate population groups and communities (Crosby, Wendel, Vanderpool, & Casey (2012). CBPR is an "approach to health and environmental research meant to increase the value of studies for both researchers and the community being studied" (Viswanathan, et al., 2004; p. 3) and thus is defined as a "collaborative research approach that is designed to ensure and establish structures for participation by communities affected by the issue being studied, representatives of organizations, and researchers in all aspects of the research process to improve health and well-being through taking action, including social change" (ibid; p. 3). CBPR has further been identified as a promising approach to address rural health disparities through capacity building, establishing trust and information dissemination (Newman, et al., 2011).

In a seminal summary of 60 CBPR studies for the Agency for Healthcare Research and Quality (AHRQ), Viswanathan et al. (2004) found that the degree of community involvement varied significantly between studies. The authors found 30 studies with interventions focusing on changing individual, community, organizational or environmental factors related to the health

problems identified. The remaining 30 were non-interventional studies predominantly geared to problem identification, risk factor assessment, capacity development and community empowerment. Although arguably the most important aspects of true CBPR, capacity building and community empowerment were the least commonly reported outcomes in the 30 non-interventional studies. However, more recent studies show that CBPR is increasingly being used to build capacity and empower communities to address health disparities in addition to identifying problems and developing interventions across numerous different health issues for diverse rural communities (Corbie-Smith et al., 2011; Gehlert & Coleman, 2010; Haynes et al., 2011; Johnson, Bartgis, Worley, Hellman, & Burkhart, 2010; Paskett et al., 2011). According to Israel et al., (2001), CBPR can be an effective approach in targeting health disparities in specified communities and specific populations. Research, jointly conducted by communities and researchers, can assess health problems and design targeted interventions in underserved communities, thereby leading to improved healthcare access and health outcomes. CBPR may be one of the nation's best options for eliminating health disparities (AHRQ, 2002).

Purpose

The Walker County Area Resources & Needs (WARN) project was the large overarching project designed to address the *Healthy People 2010* Interest Areas of Health, Human Services/Strengthening Families, & Supportive Communities by connecting indigent rural families in Walker County, Alabama, a rural community, to affordable quality primary healthcare. The overall aim of the project was to identify the financial, educational, and transportation barriers that engender unemployment, chronic disease, and premature death in the adult population and thereby strengthen healthcare services in rural Walker County. The goals of WARN were to identify the key health issues facing the county, assess risk factors, and develop

the community's capacity to deal with significant health challenges through empowerment resulting from a well-established community-university partnership. Specific goals were:

- Goal A: To conduct a needs assessment to identify health resources & needs in Walker County through existing data sources, input from social & health services professionals, community leaders & community residents; Identify existing services & compile a community resources guide.
- Goal B: To define & formalize the Walker Area Transformational Coalition for Health (WATCH) 2010, a rural health network created to improve the health of the uninsured & underinsured residents of Walker County.
- Goal C: To convene a Health Forum for the discussion of community health assets, needs & priorities for action.

Overall, the WARN project utilized a CBPR approach and was designed, funded and implemented in a partnership between a state university and county community members to identify and address rural health disparities for Walker County, Alabama. Local representatives of the Walker Area Transformational Coalition for Health (WATCH) (then 2010; now WATCH 2020), a rural health network formed in 2008 by a range of private and not-for-profit local, regional and state organizations (Hamner, Kennedy, & Wolfe, 2008), were included during the formulation of the purpose and specific aims of the WARN project. These representatives were consulted on the most appropriate methods to gain the trust of the residents and were involved in the actual study design, selection of key informants, data collection and analysis. Once the study was formulated, the purpose, aims, and methods were presented to the WATCH 2010 board for final input and approval. Community and academic leaders offered support in the acquisition of funds to implement the study. Funds were provided by the Community Foundation of Greater

Birmingham, the Walker Area Community Foundation, the University of Alabama Center for Mental Health and Aging, the Tuscaloosa Veterans Affairs Medical Center and the University of Alabama Capstone College of Nursing.

In order to meet goal A, a multi-method CBPR needs assessment was conducted. Two nursing faculty members at the University of Alabama Capstone College of Nursing worked with the community partners and two locally employed VISTA student to identify health resources and needs through existing data sources and input from local social and health services professionals, community leaders, and community residents. Using both quantitative and qualitative designs, data were collected for the needs assessment from publicly available state, county, and municipal secondary health and service sources, key informant interviews, a random telephone survey of adult residents, and a survey of healthcare professionals. This article reports the results of the CBPR needs assessment.

The Community

Walker County is a mostly rural county located in the Appalachian foothills of northwest Alabama. This county is defined as predominately rural based on the United States Department of Agriculture (USDA) definition using Economic Research Service Rural-Urban Commuting Areas (RUCA) with codes 4-10 (USDA, 2009). Walker County, a full Medically Underserved Area (MUA) and a partial Health Professional Shortage Area (HPSA) for primary and dental care under federal (Health Resources & Services Administration) guidelines, has a critical disparity in healthcare services. Sixteen percent of residents live in poverty (national average 12.7%), and 41% of those living in poverty live below 200% of the federal poverty level (Alabama Department of Public Health [ADPH], 2009). The result is a population with uncontrolled chronic illnesses, reflected in a life expectancy of only 70.6 years, among the

lowest in Alabama (compared to 75 years for Alabama and 78.2 for the nation as a whole) (ADPH, 2009; Kochanek, Xu, Murphy, Miniño, & Kung, 2011).

Methods

Sources of Data

A CBPR needs assessment was conducted to identify health resources and needs through existing data sources and input from local social and health services professionals, community leaders, and community residents. Using both quantitative and qualitative designs, data was collected for the needs assessment from publicly available state, county, and municipal secondary health and service sources, key informant interviews, a random telephone survey of adult residents, and a survey of healthcare professionals.

Procedures

An exploratory, multi-method design was used to conduct a community needs assessment consisting of four phases: an epidemiological assessment (Phase 1); key informant interviews with county leadership, community, faith and business leaders, and service providers (Phase 2); a randomized telephone survey of adult residents based on findings from Phase 2 (Phase 3); and a healthcare professional survey (Phase 4). The study protocol was approved and monitored by the Institutional Review Board (IRB) of the University of Alabama as exempt (#09-OR-188).

Phase 1. A county epidemiological assessment of selected mortality health status indicators, as identified from the 2009 ADPH reports, was the preliminary step in the needs assessment. Walker County cause of death indicators were compared with state, national, and target indicators to assess excess patterns of disease and health disparities.

Phase 2. Phase 2 of the needs assessment was designed to assess the needs of the community by conducting interviews with key informants living in Walker County. Community

partners were asked to identify informants to interview based on their professional exposure to these informants and thus ensuring a sample which contained a variety of occupations and organizations. Potential key informants were contacted to obtain permission and set appointments for interviews. Nine key informant interviews were conducted. Those interviewed included a school vice-principal, a community liaison, a lawyer, a housewife, a businessman, a doctor, a nurse, a case worker, and a social worker. Initially ten interviews were planned but one interview with a community minister was not completed due to schedule conflicts. They worked in a variety of fields including the local hospital, the local judicial system, the school systems, the county health department, non-profit assistance services, churches, local businesses, and other county services.

All participants were interviewed at their convenience in their personal and private office or space by two researchers. The study was explained, code numbers were assigned, and verbal informed consent was obtained prior to each of the nine interviews. The researchers emphasized that the information obtained would be both anonymous and confidential. In semi-structured interviews, participants were asked exploratory, open-ended questions concerning the health needs of Walker County (See Table 1). They were encouraged to share their opinions and reactions with follow-up questions from the interviewers. Interview questions did evolve somewhat over time in order to obtain as much pertinent information about the phenomenon of health needs in Walker County. Each interview took approximately 30 to 60 minutes and was followed by debriefing to ensure validity and to provide content to answers where needed. Informants were not compensated for their participation. The interviews were audio-taped and transcribed verbatim. Notes were taken by the researchers during the interviews to record

researcher observations of behavior and highlight areas of transcribed interviews on which to focus in greater depth.

Table 1

Key Informant Interview Questions (Phase 2).

Questions
1. What do you perceive to be a health/general problem for Walker County
2. How does Walker County differ from other counties?
3. What is good here?
4. What is not so good here?
5. What resources are available for improving health?
5a. Are they being used effectively? If not, why not?
6. What key things can the community do to improve things locally?

Analysis and interpretation were ongoing through the data collection stage. Consistency was checked as the two researchers discussed and compared results after each interview and made notes. After only nine interviews, a repetition of information was noted, and data collection was terminated. Data saturation occurred as evidenced by repetition and confirmation of previously collected data (Speziale & Carpenter, 2007). Both researchers listened to the audio tapes and read and re-read the transcripts to acquire a sense of each interview, extract significant statements and organize into clusters of themes (Sanders, 2003). Terms, ideas, or quotations from the interviews were identified to help focus on common themes and patterns. Findings were used to design a follow-up telephone survey for Phase 3.

Phase 3. Phase 3 of the needs assessments used the key informant interview findings to design a follow-up telephone survey. This component was crucial to ensure residents of Walker

County have an active voice in identifying health needs and in establishing priority areas for future community-based health services and research.

The survey was developed by the research team with input from researchers who conducted the key informant interviews and community leaders and was submitted for subcontract to the University of Alabama Institute for Social Science Research (ISSR). ISSR is an interdisciplinary organization at the University of Alabama with more than 25 years' experience in designing and conducting research interviews in a wide range of social sciences. The full telephone interview was administered in July and August 2010. It assessed demographics, personal health information, health status, healthcare access, individual satisfaction with available healthcare resources, and caretaking responsibilities. Random-digital-dial methodology was used to recruit adults living in Walker County with telephones. Data were collected from a sample of 774 residents of Walker County, Alabama, randomly selected from among residential households in Walker County with land-line telephone service. In each Walker County household contacted, a research assistant attempted to select as the respondent the resident with the next birthday among the residents aged 19 years and older. Using the sequence of birthdays in a household was an effective method to approximate randomness in the selection of a population level respondent from each household contacted without the time, complication, and intrusiveness of a Kish-based selection. Data was collected by research assistants trained in telephone interviewing using CATI (computer-assisted telephone interviewing) software from Sawtooth systems. Verbal consent was obtained from each interviewee prior to administering the survey. The telephone survey tool is available, upon request, from the authors.

Phase 4. As the study progressed it was decided by the WATCH 2020 Board of Directors that an assessment of the health status of Walker County from the perspective of the healthcare

professionals would be beneficial in the planning of future intervention and prevention programs. Information obtained from the key informant interviews and the telephone survey was used to guide administration of a needs assessment to healthcare professionals. A questionnaire was compiled and distributed to 150 healthcare professionals in Walker County, with a completion rate of approximately 30 percent (45 surveys). The respondents included registered nurses, nurse practitioners, administrators, physicians, dentists, and pharmacists. The six-question survey used open-ended questions allowing for free-response. The healthcare professional survey tool is available, upon request, from the authors.

Results

Epidemiological Assessment

In Walker County, about 59% of the population completed high school within four years, compared to 70% in Alabama, and less than half of the population of Walker County has some college experience, compared with 56% in Alabama and 68% in the United States (Robert Wood Johnson Foundation [RWJF], 2012). Poverty and unemployment are also likely contributors. Walker County has a very high unemployment rate (10.6%, as opposed to 5.4 % nationwide) (RWJF, 2012). Consequently, Walker County is consistently ranked as having some of the poorest health outcomes in the state. RWJF County Health Rankings (RWJF, 2012) show Walker County ranked 67th out of 67 Alabama counties in terms of mortality, or years of potential life lost before the age of 75. However, in the same report, Walker County ranked 43rd in terms of available health infrastructure (RWJF, 2012). Alabama, as a whole, also receives low scores for its healthcare. In the rankings of state healthcare by the United Health Foundation (UHF, 2012), Alabama placed 46th overall in the year 2011.

Health profile mortality by selected cause is presented and compared to state and national mortality data in Table 2.

Table 2

Walker County Health Comparison with State & National Mortality Data (Phase 1).

Disease	*Walker County*	*State*	*National*
Heart disease	321.5%	254.0%	180.1%
Cancer	312.8%	217.8%	173.2%
Stroke	49.5%	56.2%	38.9%
Accidents	97.5%	49.7%	37.3%
Chronic Lung &Respiratory Disease	100.4%	58.6%	42.3%
Diabetes	32.0%	26.3%	20.9%
Influenza & pneumonia	20.4%	19.8%	16.2%
Alzheimer's disease	36.4%	32.1%	23.5%
Suicide	14.5%	14.2%	11.8%
Homicide	8.7%	8.7%	5.5%
Human Immunodeficiency Virus disease	4.4%	3.6%	NA

**Source: ADPH, 2009 Health Profiles; USDHHS (National Vital Statistics (2011)*
NA = not available

Key Informant Interviews. The nine key informants perceived the greatest health and general problems in Walker County to be the lack of insurance coverage or being underinsured; obesity; a lack of education; and a lack of consistency in primary care. They believed that Walker County differed from other counties in the state of Alabama by a markedly lower self-esteem in the individual citizens and the county, a lower socioeconomic status (SES), lower levels of education, an increased drug culture, and a lack of local industry. When asked how

much of a problem alcohol abuse was in Walker County, 81% said that it was either an "extreme problem" or "quite a large problem."

Some of the perceived disadvantages to living in this area included a lack of discipline in the home, the division of community by the 270 churches within the county, the lack of vision by the county leadership, the high drug and crime rate, the poor education system, the poor literacy rates, the shortages of physicians who accept Medicare, and the lack of transportation. Also of noted importance was a "crippling sense of tradition" defined by respondents as ongoing poverty and lack of education because what was "good enough for the prior generation was good enough for the next generation." However, some of the stated benefits of living in Walker County included the physical environment, the increased number of physicians, the Jasper City School System, the hospital (Walker Baptist Medical Center), and the strong sense of community.

Informants were asked to identify assets available as far as healthcare services for Walker County. Some of these included: HOPE Clinic (a free clinic for indigent care); Walker Baptist Medical Center; Federally Qualified Health Centers (the Capstone Rural Health Center in Parrish and Jasper Health Services Clinic in Jasper, in particular); Walker County Public Health Department (the ALL Kids and Women, Infants and Children [WIC] programs, in particular); American Red Cross; local physicians, nurse practitioners and hospitalists; local urgent care centers; United Way; faith-based groups; Jasper Area Family Services (including the Baby Talk program); Northwest Alabama Mental Health Center; and local drug stores that work with the hospital to make medications affordable. When asked to discuss areas needing improvements within the community, informants identified transportation, affordability of care, more recreational facilities and physical exercise opportunities, partnerships and collaborations among

the variety of service providers, education and awareness opportunities, and easy access to this information through a website or a network.

Telephone Survey. The survey used a random-digit-dialing sample consisting of 774 participants. The sample was 70% female, 93% white and had an average age of 57 years. Highest level of education attained was most often reported as high school diploma (31.9%) or some college or technical training (25.8%). The majority of the survey population had a household income of $39,000 or less. Among those surveyed, 12% were Veterans.

The most significant health concerns in Walker County perceived by the general population as identified by the telephone survey are shown in Table 3.

Table 3

Important Issues in Walker County (N = 774)

Important issues	Number	% of all answers
Poor Quality or Insufficient Health Services	178	23.00
Lack of Insurance	151	19.51
Heart Disease	81	10.47
Cost of Care/Poverty	80	10.34
Cancer	76	9.82
Drug Abuse	61	7.88
Diabetes	50	6.46
Lack of Senior Care	48	6.20
Obesity	46	5.94
Pediatric and Prenatal Care	27	3.48

Other reported concerns noted from the surveys included: sexually transmitted infections, Alzheimer's, autoimmune diseases, and teen pregnancy. Many of the sample surveyed in the

needs assessment reported that they did not have a problem reading health materials or understanding written information (39.1%) or understanding verbal information (34.1%). However, 54.7% did not feel comfortable filling out health forms without assistance. Most either read the health sections of newspapers and magazines (66.7%) or watched health segments on television (82.6 %).

The majority of respondents reported that they are in "very good," "good," or "fair" health (79.4%). However, approximately 40% attributed their physical health to not achieving personal goals, and almost 60% said that normal work inside and outside the home caused them physical pain which interfered with that work. Survey results showed "poor quality or insufficient health services" as the most significant health concern in Walker County. Eighty-nine percent of participants said they were "very satisfied" or "somewhat satisfied." Only 9% of those surveyed reported using Medicaid, while 41% reported using Medicare and 11% reported having no insurance. The majority (74%) reported that they went to a doctor's office or clinic when they were sick. Most (80%) respondents reported that they had visited a health care provider, for any reason, in the last 12 months. However, 51.8% reported that they had not been to the dentist's office within the last 12 months.

The Body Mass Index (BMI) of the population surveyed was calculated using a formula obtained from the National Heart Lung and Blood Institute (NHLBI, nd). The average BMI was 28.3 ± 6.2, which is in the overweight range. Approximately 32% had BMIs above 30, which would categorize them as obese. When asked about how well the people of Walker County managed their weight, almost 50% of those surveyed said that the population managed their weight "poorly" or "very poorly."

Other findings from this survey showed the majority of the participants reported that they never smoked cigarettes (75.2%). When asked a range of questions regarding depression, about 36 to 41% of those surveyed showed some signs of depression. These signs were characterized by feeling little pleasure or interest in daily activities, by feeling nervous or anxious several or more days in a two-week period, and by experiencing uncontrollable worrying several or more days in the past two weeks.

Healthcare professional survey. The most reported concerns regarding healthcare in Walker County, according to resident health care professionals, included no insurance due to lack of jobs (33%), abuse of prescription drugs (15%), obesity (12%), and lack of education among the population (10%). Their rationale for the disparity between health factors and health outcomes was largely a lack of responsibility and concern for personal health, as well as the lack of insurance and jobs. Diabetes, high blood pressure, and heart disease were identified by health care professionals as the most severe health problems in Walker County.

The healthcare professionals suggested that health education in schools and adult health education classes would be the best ways to improve health and create healthy lifestyles in Walker County. Almost 70% of the respondents to the health care professional survey indicated they would be willing to participate in offering health education classes in healthy lifestyle choices, as well as chronic disease management.

Discussion

Epidemiological assessment

Assessment of selected health status indicators as identified from ADPH (2009) revealed an overwhelming number of disparities for Walker County as represented in Table 2 and 3. When compared to state and national cause of death indicators, excess mortality was noted

across many categories including heart disease, cancer, stroke, accidents, chronic respiratory disease, diabetes, influenza and pneumonia, Alzheimer's disease, suicide, and HIV disease.

Given education and literacy are determinants of health (Crosby et al., 2012), documented poverty and lack of educational attainment noted in Walker County have contributed to the county's poor health status. Furthermore, poverty is a significant contributor to poor healthcare quality and health outcomes for a variety of diseases and injuries (Raffensperger et al, 2010). Many of Walker County residents are the working poor, which is usually associated with poor access or affordability of quality health services. The current economic environment amplifies the problems in a large population with unmet healthcare needs and poor health outcomes.

Key informant interviews

One overarching common theme was that the invaluable resources identified by key informants are not being used effectively due to a lack of transportation and knowledge of the options available in the county. Concern with transportation to healthcare services was also found in a previous study (Graves, 2012), where 16% of those interviewed said that they traveled more than 30 miles for healthcare and found this to be a major problem.

Telephone survey

Despite the survey population reporting "poor quality or insufficient health services" as the most significant health concern in Walker County, when asked to assess their satisfaction with the available health care, 89% said they were "very satisfied" or "somewhat satisfied." This suggests that individual satisfaction with health services is higher than perceived community satisfaction. While outside data (ADPH, 2009) indicates that 21.9% of the Walker County population was eligible for Medicaid assistance, only 9% of those surveyed reported using Medicaid.

Approximately 32% had BMIs above 30, which would categorize them as obese. This finding corresponds with data from the Centers for Disease Control and Prevention (CDC), reporting that 31% of the population of the state of Alabama is obese (CDC, 2007) and showing that 30.9% of Walker County's population is obese (2007). Graves (2012) found an overwhelming 44% obesity in patients in one local Walker County health clinic. Furthermore, almost 50% of those surveyed identified that the population did not manage weight well, suggesting that the population of Walker County is aware of the county's obesity epidemic.

Health care professional survey

When asked to describe the most severe health problems in Walker County, the answers given by the health care professionals were consistent with those obtained from the random telephone survey of community residents – diabetes, high blood pressure, and heart disease. Obesity was identified as a problem but was lower on the list in this group. They did agree that a lack of education among the general population about healthy lifestyles was the greatest obstacle in overcoming those challenges.

Strength and Limitations

A particular strength of the study was the use of a multi-method design (LoBiondo-Wood & Haber, 2010). The collection of different types of data related to the complex phenomenon of health and community worked to bring clarity to health disparities present in this rural community. This multi-method approach allowed for the examination of different facets of community health and enriched understanding of the human experience of health in a rural community. The combination of methods not only facilitated instrument development and the accomplishment of the specific project goals, but can now also guide intervention development.

Some complications were noted during the completion of this study. The timeline for accomplishing deliverables had to be extended while the phone survey was finalized. This may have created a slight discrepancy between the responses of the key informants and the telephone survey results. There was also some deviation from the script for the telephone survey, which created obstacles in the interpretation of the results. Furthermore, the telephone survey reached a majority white, female, urban population, making it less generalizable to the entire population of Walker County. This selection bias is consistent with the trend of younger individuals typically now owning cellular phones only; people who have land-lines are typically older. All participants in the telephone survey had land-line telephone service and therefore it is possible that findings may differ from those with only cell phone service or no telephone service.

A limitation of this study is that it drew heavily from active collaboration with partnering agencies, community-based organizations, and community members. The findings may not apply to communities where such collaboration is not present. The generalizability of the study findings to the larger rural population is further limited by the sample size and demographics. The study population or community was located in northwest Alabama and was composed of mostly white participants living in poverty situations. Findings may differ for other rural communities in other regions.

Implications

The high prevalence of chronic disease seen in Walker County shows a high priority need for future research and interventions. This community-based needs assessment can now be used to guide the development of future research as well as treatments and intervention protocols. More research is needed to identify specific burdens within the infrastructure and to place this

information in a cultural context for designing community-based prevention and intervention strategies.

This project has demonstrated the ability to build capacity and empower this rural community. Furthermore, the use of a CBPR approach was successful in identifying and assessing health disparities in this county. The data can now be used to work toward the elimination of health disparities.

Although this research has high relevance to social and health service professionals it is also relevant to other professionals who are interested in the use of CBPR. It can therefore be used by those with an interest in community engagement and scholarly and civic engagement and has pedagogical potential for teaching in these fields. This research can serve as a model for future research and community engagement scholarship as it related to CBPR as a paradigm to identify, address and eliminate health disparities.

Academic centers can connect with community partners to conduct CBPR. Nurse faculty leaders are valuable resources for assessing health problems and designing targeted interventions in underserved communities toward improved healthcare access and health outcomes and ultimately leading to decreased health disparities.

Conclusions

The use of CBPR in this rural community was successful in this community-based need assessment was used to guide the development of intervention strategies within the framework of WATCH 2020. All results were presented to the WATCH 2020 Board of Directors, as well as community leaders, in order to aid in the development of a sustainability plan. Dialogues to relate community health experiences provided excellent means to learn about community-specific needs. WATCH 2020 was inspired by the results of the needs assessment to host a

Childhood Obesity Task Force Summit to determine the most effective way to combat the obesity epidemic in Walker County. WATCH 2020 also planned a Healthy Week Initiative which will take place annually in an attempt to reduce health disparities of Walker County.

The planning and program efforts of WATCH were valuable to the county, but in 2012 the WATCH 2020 leadership reviewed other organizational models to increase community impact. The Health Action Partnership in nearby Jefferson County provided the model for a more concrete leadership structure that was better suited to moving prevention strategies forward in Walker County. WATCH transitioned into the Walker County Health Action Partnership (WCHAP) in October 2013 with signed articles of collaboration and committed anchor organizations to support the work, but many partners that participated in WATCH transitioned as well. Additional key community partners have signed on to WCHAP, increasing the reach and impact of prevention efforts and helping secure funding from three external grants.

In summary, the current findings support disparities in healthcare use and health outcomes in this rural community. Furthermore, it was determined that Walker County community residents do not suffer from a shortage of available healthcare services. These findings show a disconnection between the noted availability of healthcare services and disparities in many health outcomes. Further research is needed to identify potential cultural factors and barriers.

This study highlights the value of CBPR as a paradigm to address rural health disparities through capacity building, establishing trust and information dissemination. All communities are different and have individual identities; information from one community is not necessarily replicable or transferable. CBPR is an effective approach for the identification of community-specific health disparities and in the guidance of developing community-specific interventions toward the elimination of health disparities.

Supporting Agencies

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