

## **A Collaboration Between Extension and Psychology to Improve Health For Rural Americans: The National Rural Behavioral Health Center**

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### ***ABSTRACT***

***This article describes the creation of the National Rural Behavioral Health Center (NRBHC), which grew from an innovative partnership between University of Florida Cooperative Extension and the Department of Clinical and Health Psychology. The NRBHC works to improve the quality of health and mental health care for rural Americans through projects integrating Extension, research, and professional training efforts designed to increase the efficiency and accountability of rural behavioral health strategies. We discuss current projects of the NRBHC as examples of how psychologists can work with Cooperative Extension to improve behavioral health services nationwide.***

**INTRODUCTION**

**Behavioral and Mental Health in Rural America**

Rank	Cause of Death	Behavioral Health Component
1	Heart Disease	Diet, exercise, stress, anger/temperament, depression, health-seeking behaviors
2	Cancers	Smoking (lung cancer), sun exposure (skin cancer)
3	Cerebrovascular Diseases (Stroke)	Diet, exercise, stress, health-seeking behaviors
4	Chronic Lower Respiratory Diseases	Smoking
5	Accidents (Unintentional Injuries)	Motor vehicle accidents-seatbelt use, substance abuse, inadequate safety procedures, fatigue
6	Diabetes	Diet, poor adherence to health regimen/treatment
9	Kidney Diseases	Diet, poor adherence to health regimen/treatment, poor diabetes management
10	Septicemia	Risky health behaviors, sexually and socially communicated disease
11	Suicide	Undiagnosed/untreated depression, anxiety, substance abuse
12	Chronic Liver Disease	Substance & medication abuse, socially communicated disease
13	Hypertension	Diet, exercise, stress
15	Homicide	Mental health problems, history of abuse, anger/emotional undercontrol

Poor health behaviors are the leading cause of death in the United States. For the purpose of this discussion, behavioral health is defined as the influence that behavior has on overall health for an individual. Typical behavioral health issues include dietary practices, exercise, sexual activity, adherence to medical regimens, and cognitive, emotional and behavioral functioning. Almost all of the leading causes of death in the United States can be directly linked to poor behavioral health practices (Anderson & Smith, 2003). Table 1 lists the 12 leading causes of death in 2004 that have associated behavioral health components (Centers for Disease Control, 2004). Table 2 displays the critical indicators of America’s health as defined by Healthy People 2010 (Office of Disease Prevention and Health Promotion, 2003). Quite tellingly, seven of the ten key indicators of health are directly related to behavioral health concerns. The impact of behavioral health practices on overall health is particularly salient in rural communities where a lack of specialized health providers and facilities, large geographical distance, poverty, and less well-developed prevention and health promotion programs conspire to leave rural residents at greater risk for serious and life-threatening illness as compared to their urban counterparts (Congressional Research Service, 1995; Wagenfield, 1990).

Table 1: Behavioral Contributors to Leading Causes of Death in the United States (2004)

Table 2: Leading Health Indicators, Healthy People 2010

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Physical activity	Overweight and obesity
Tobacco use	Substance abuse
Responsible sexual behavior	Mental health
Injury and violence	Environmental quality
Immunization	Access to health care

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Unfortunately, the limited availability of these health services to rural Americans is only half of the equation. Even if adequate behavioral health services were provided, and financial and geographic obstacles overcome, rural community customs for seeking help and stigmas towards mental health problems often serve to dissuade many rural residents from seeking needed mental and behavioral health services from traditional providers (Williams, 1996). Stigma often leaves even the most accessible facilities underutilized in rural communities.

To reduce the impacts of these obstacles on health care seeking behaviors, health policy experts have suggested that mental and behavioral professionals may be most effective by working with established services or institutions that are well accepted in the rural community, and that these practices may be far more effective than simply “opening for business” (Hargrove & Breazeale, 1993). Innovative models of behavioral and mental health care education and service delivery have been proposed that emphasize the connection between health care practitioners and less “controversial” institutions or professionals that have been well established in the community. For example, significant attention has been paid to delivery models that focus on integrating the behavioral health care practitioner in primary care medical facilities (Sears, Evans, & Perry, 1998) and schools (Evans, 1999); however, far less consideration has been given to collaborative models of behavioral health education prevention and intervention that involve what is arguably the most important source of community education support in rural America, Cooperative Extension.

Perhaps the dearth of discussion of Extension’s role in mental and behavioral health service delivery is explained by its foundations in agricultural and natural resource education. Extension’s social programming efforts in past decades have tended to lean more toward the traditional content areas of youth development in homemaking. However, the rural crisis of the 1980's signaled what some have stated was a watershed moment in terms of Extension’s involvement in mental and behavioral health programming (Molgaard, 1997). The rural crisis prompted Extension agents and specialists to quickly expand their efforts to creating programs in stress management, family communication, coping with economic loss, preventing depression and suicide, and related topics (Molgaard, 1997; Williams, 1996).

Extension continued to build on the momentum created by the Farm Crisis of the 1980's through its continuing response to the on-going Farm Crisis of the 90's (Williams, 1996),

the Children, Youth, and Families at Risk initiative (CYFAR), and the attention paid to mental health issues in the Extension Disaster Education Network (EDEN). Individual state Extension Systems have responded to mental health issues as well by implementing programs designed to assist families in coping with stress after a natural disaster (see Molgaard, 1997 for summary), prevent substance abuse and delinquency in youth (Spoth, 1997), and improve parenting skills (Riley, 1997). However, with rare exception (Halpert & Sharp, 1991), there have been relatively few formal partnerships between Extension and the mental and behavioral professionals at university-based medical centers. Perhaps this phenomenon is due in part to the limited number of land grant universities that also host a major medical center. It is even more likely that such limited formal collaboration is due to the absence of recognition in the health care community of Extension as an important and valuable partner in behavioral health care education and service, and perhaps conversely, a hesitancy among Extension professionals to recognize the reciprocal benefits of collaborating with behavioral health care practitioners and other health educators.

### **The Development of the National Rural Behavioral Health Center**

The National Rural Behavioral Health Center (NRBHC) was established in 2001 with a grant from the Substance Abuse and Mental Health Services Administration. The NRBHC provides an academic home for faculty from multiple disciplines who are interested in conducting research, community education and service, and professional education on issues related to the behavioral health status of rural populations. As its mission, the NRBHC seeks to improve the quality of life of Rural Americans through state of the art behavioral health research, Extension education, service delivery, and training of health care professionals and community educators to overcome the workforce shortage for behavioral health services in rural areas.

The NRBHC was built on the foundation of the University of Florida Rural Psychology Program. This program was created in 1995 to take advantage of the natural strengths of the University of Florida Cooperative Extension and the Department of Clinical and Health Psychology in the College of Public Health and Health Professions. The seeds for the program were planted as Hurricane Andrew ripped through Homestead, Florida in the summer of 1992. The storm destroyed virtually everything in its wake and severely damaged Extension and research facilities operated by the University of Florida Institute of Food and Agricultural Sciences (IFAS). IFAS officials requested the services of faculty from the UF Department of Clinical and Health Psychology (CHP) to address the psychological needs of the faculty, staff, and their families. Both direct support and “train the trainer” models of education were initiated to allow local Extension and research faculty to gain some understanding of their circumstances, reinstate control over the situation, and provide recovery support for local residents. This effort was enthusiastically received by participants and resulted in a Distinguished Service Award from USDA. In an effort to build on this success, IFAS (in particular, the Department of Family, Youth and Community Sciences) and CHP agreed to pursue a formal and continuing collaboration through the creation of two joint faculty lines that would reside in both departments and create the Rural Psychology Program.

## **National and Regional Extension Initiatives**

Our initiatives adhere to the principle that Extension education, pre- and post-professional education, and research are each benefited by programs that attempt to integrate activities across two or more of these areas. Thus, we have aggressively pursued funding mechanisms that allow us to combine Extension activities with research and training programs. It is our hope that the NRBHC can be viewed as one of a number of successful models of such integration that highlights the benefits of collaborating with Extension. To illustrate, we will briefly summarize a few selected programs conducted by our faculty.

### ***Rural Disaster and Trauma***

The acute effects of disasters, terrorism, and other traumas present a challenge in rural communities due to fewer resources to devote to disaster events, poverty, economies largely dependent on “open field” operations (e.g., farming, ranching, mining), geographic and social isolation, stigma for help-seeking, and fewer qualified mental health providers. Since the mid-1990’s, faculty at the NRBHC have been invited to assist Extension services responding to disasters including Hurricane Andrew in Florida, the 1997 Red River floods, drought and wildfires in the southeast and far west, the 2001 World Trade Center attack, the 2004 Florida hurricanes, and Hurricane Katrina. Building from these experiences, NRBHC faculty developed the multi-media (videotape and manual) curriculum, *Triumph Over Tragedy: A Community Response to Managing Post-Disaster Stress* (Evans & Sears, 1999) for Extension professionals, healthcare professionals, and other disaster response workers.

More recently, NRBHC staff developed the second edition of the curriculum, *Triumph Over Tragedy, Second Edition: A Community Response to Managing Trauma in Times of Disaster and Terrorism* (Evans & Wiens, 2004). This second edition expands on the first by including information relevant to human-made disasters, terrorism, and bioterrorism. In addition, issues specific to rural areas and community response are covered. Although it is an appropriate teaching tool for a wide audience of health care workers, educators, and community leaders, the program was written with a primary audience of Extension professionals in mind (for additional information and publications, visit [www.nrbhc.org](http://www.nrbhc.org)). With the assistance of a grant from the USDA, a CD/DVD (Wiens & Evans, 2006) companion to the curriculum was created that includes narrated training modules, presentations, the entire manual in PDF format, links to web-based resources, and the original 1999 video updated to DVD format. This curriculum was utilized by Extension professionals in Louisiana, Mississippi, and Alabama following Hurricanes Katrina and Rita. Those who used the curriculum reported that it was an important part of their recovery efforts, as they were able to recognize the psychological needs of those they were assisting, as well as the psychological needs of their fellow Extension staff.

*Healthy Child and Family Development and Prevention of Risk Behaviors*

Through work originating in the UF Rural Psychology Program and continuing in the NRBHC, faculty have been working on projects that extend Extension's long history of community and family education programs in healthy child and family development strategies into multi-modal, community-wide research and prevention service programs in rural communities. Multi-session parenting education curricula focusing on building protective factors for high risk families have been developed for parents of adolescents ("Teening-Up with Your Adolescent: Parenting Children Ages 10-16," Evans et al., 1997) and new fathers ("What a Difference a Dad Makes" video and manual, Evans, 1999), and have been piloted by Cooperative Extension with successful results (Evans, Mixon, & Ross, 2000). In order to expand these types of efforts, we developed a collaborative relationship with a rural county school district, with whom we are involved in a community-wide comprehensive approach to preventing violence, substance use, and delinquency among children. This collaboration has resulted in multiple grants from the U.S. Department of Education and Safe Schools/Healthy Students Initiative (Wack, Radunovich, & Wiens, 2006; Wiens, Radunovich, & Dean, 2007).

*Innovations in Behavioral Health Education and Service: Obesity Treatment*

Rates of adult obesity in the U.S. have increased by over 50% since the 1970's (Flegal, Kuczmarski, & Johnson, 1998). Rural residents consistently demonstrate higher rates of obesity, sedentary lifestyles, and death from ischemic heart disease than their urban counterparts. Furthermore, these disparities are most pronounced in the rural South (Eberhardt, Ingram, Makuc, et al., 2001). In response, researchers at the University of Florida used the NRBHC as a crucible for collaborating with Extension professionals already conducting weight management education programs in the state. The resulting program, Treatment of Obesity in Underserved Rural Settings (TOURS), is a cognitive-behavioral approach to weight management for obese rural women. In what is perhaps our most exemplary synthesis of Extension education and research activities, these faculty members collaborated to secure funding by the National Institutes of Health (NIH) to examine the effects of a 6-month lifestyle intervention for weight loss shown to be successful in previous research, followed by one of three 12-month follow-up programs: (A) an office-based maintenance program, (B) a telephone-based maintenance program, or (C) an education control condition. The project is hosted at Extension county offices across North Central Florida, and the field staff consist primarily of county faculty. The success of this program has led to an additional NIH proposal.

Childhood obesity is also a major public health concern. More than 30% of all children and adolescents in the United States are overweight or obese. Childhood obesity has been linked to type 2 diabetes, insulin resistance and abnormal glucose tolerance, metabolic syndrome and cardiovascular risk factors, and psychosocial consequences. Thus, successful treatment of childhood obesity is associated with significant health benefits. Behavioral family-based interventions including both children and their parents have demonstrated success in producing weight loss in children. The existing research is limited, however, with respect to its generalizability to diverse community settings. Most

weight management trials for children have consisted of efficacy studies conducted with middle-class participants where services were delivered in “optimal” (i.e., academic research) venues rather than in “real world,” community settings. Thus, collaboration with Extension was sought to bring family treatments for childhood obesity to rural communities. The resulting program, Project STORY (Sensible Treatment of Obesity in Rural Youth), entails a three-arm randomized controlled trial to test the effectiveness of interventions designed to promote successful weight management in an important but understudied population, overweight children and their parents in medically underserved, rural settings. This initial study will provide pilot data to develop and support a full-scale trial that will be implemented across multiple rural counties. In this initial pilot program, participants are randomly assigned to one of two, 4-month long intervention programs that are delivered in rural communities through Cooperative Extension Offices, or to a Wait List Control (WLC) group. The Behavioral Family-Based Intervention (BFI) involves simultaneous, but separate treatment groups for both the child and their parent(s). The Behavioral Parent-Based Intervention (BPI) involves groups for only the parent(s). Both programs take a behavioral lifestyle approach to gradually modify dietary and physical activity patterns.

The TOURS and Project STORY programs take advantage of the respective strengths of Extension (e.g., delivering education programs in communities, locations in rural counties, relationships with communities) and psychologists (e.g., training in delivering evidence-based group mental and behavioral health interventions, research capabilities and funding) to deliver and examine behavioral health services in rural areas. As such, they serve as models of the benefits of Extension and psychology collaboration in helping to answer the behavioral health needs of rural communities.

### **Future Directions**

Our primary objective for the coming years is to demonstrate the utility of the NRBHC as a tool for enhancing collaborative Extension, research, and training efforts in community health education and prevention. Much discussion focuses on the importance of disseminating empirically supported approaches to health promotion and youth development. At the NRBHC, we hold strong convictions that this “research to practice” movement must place further emphasis on the cyclical relationship between these activities, such that practice must also continue to inform our research endeavors. To this end, it is critical that we continue to bridge the gap between research in behavioral and mental health disciplines, and the practice of health promotion and child and family development. Due to their reputation as respected institutions in rural communities, connections with land grant institutions, and their commitment to providing community education grounded in science, we believe that Extension services prove themselves to be indispensable to any “practice to research to practice” endeavor.

We have been developing collaborative relationships with Extension professionals and researchers at land grant institutions to develop and research programs that can be utilized in conjunction with Cooperative Extension. By enhancing the empirical supports for these behavioral health programs, we aim to create greater efficiency and assist

Extension professionals in demonstrating accountability for their efforts. Unfortunately, the meager resources for behavioral health promotion and prevention in rural communities, combined with the often-overwhelming needs, are unfortunately often mirrored in rural Extension services. At the NRBHC, we offer expanded opportunities to provide technical assistance to these communities as they grapple with issues surrounding: (A) the selection of appropriate behavioral health strategies; (B) difficulties in providing sufficient professional education opportunities; (C) less well-developed infrastructures for grant development and project support; and (D) evaluation of existing efforts.

Outside of Florida, much of our work with Extension has been consultative to this point. That is, we have assisted Extension professionals by providing summaries of the research supporting specific behavioral health strategies and conducting training workshops on curricula that we have developed in Florida. The task ahead is for us to partner more intimately with Extension professionals and researchers interested in fully bridging science and practice by building and testing new programs, or evaluating promising ones that serve to enhance behavioral health services in their respective communities.

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