# PARENTAL PERCEPTIONS OF BARRIERS TO CARE: AN EXAMINATION OF RURAL APPALACHIAN PARENTS' EXPECTANCIES OF THE AVAILABILITY, PROCESS, AND OUTCOME OF MENTAL HEALTH SERVICES FOR ELEMENTARY SCHOOL-AGED CHILDREN

A dissertation presented to

the faculty of

the College of Arts and Sciences of Ohio University

In partial fulfillment

of the requirements for the degree

Doctor of Philosophy

Caroline E. Murphy

August 2005

This dissertation entitled

PARENTAL PERCEPTIONS OF BARRIERS TO CARE:

AN EXAMINATION OF RURAL APPALACHIAN PARENTS' EXPECTANCIES OF THE AVAILABILITY, PROCESS, AND OUTCOME OF MENTAL HEALTH SERVICES FOR ELEMENTARY SCHOOL-AGED CHILDREN

BY

CAROLINE E. MURPHY

has been approved for

the Department of Psychology

and the College of Arts and Sciences by

Julie S. Owens

Assistant Professor of Psychology

Benjamin M. Ogles

Interim Dean, College of Arts and Sciences

MURPHY, CAROLINE E. Ph.D. August 2005. Clinical Psychology.

Parental Perceptions of Barriers to Care: An Examination of Rural Appalachian Parents' Expectancies of the Availability, Process, and Outcome of Mental Health Services for Elementary School-Aged Children (116 pp.)

Director of Dissertation: Julie S. Owens

The current study investigated parental perceptions of the availability of mental health services for elementary-aged children, as well as barriers to care including expectations of treatment process, relationship, and outcome. Parent data from two rural Appalachian Ohio areas were contrasted with that from an urban Ohio sample matched for SES so that beliefs across community types could be examined. Using anonymous questionnaire methodology, parents were surveyed about their perceptions of children' mental health care in their respective communities. Parents provided responses to open-ended questions about what services are available in their community, and were then asked to rate the acceptability of these services. Further, they were provided with a checklist of various agencies or entities and were asked to denote those agencies that are available in their respective communities. Data were also gathered about parents' preferred sources of referral for children's mental health services, Appalachian heritage, and whether or not their child has ever received such services. Finally, parents responded to modified versions of the *Barriers to Treatment Participation* scale (Kazdin, Holland, & Breton, 1991) and the *Expectations of Mental Health Care* survey (Richardson, 2001). Results suggest that rural parents view community mental health centers as primary sources of mental health support for their children, whereas urban parents viewed medical institutions (e.g., pediatricians, hospitals) as their preferred source of such care.

As anticipated, issues of relationship and trust with the therapist were particularly salient for individuals in the rural county areas of Appalachian Ohio, compared to those living in a rural city in the same region. This study presents one of the first examinations of children's mental health care in rural areas, and is unique in its study of Appalachian regional effects. Findings from this study may serve to inform providers in underserved areas such as rural Appalachia how barriers including poverty and parent perceptions of mental health treatment may have differential effects in geographically isolated areas versus more metropolitan centers.

Approved:

Julie S. Owens

Assistant Professor of Psychology

TABLE OF CONTENTS

LIST OF TABLES

# INTRODUCTION

American youth struggle with myriad challenges as they navigate their own physical, emotional, social, and intellectual development. Simultaneously, they are faced with ever-increasing demands from environmental sources such as school, extracurricular activities, and their own family environment. In an ideal world, they have available means to traverse their struggles and successes in a healthy and productive manner. However, many children can be hampered in their development by the presence of any number of psychological disorders. Reported prevalence rates of mental health problems in American youth are widely variable, ranging from 5% to 49% (Angold & Costello, 1995; Friedman, Katz-Leavy, Manderscheid, & Sondheimer, 1997). In a review of 52 epidemiological studies of child and adolescent psychopathology, including 21 preadolescent samples, Roberts, Attkisson, and Resenblatt (1998) found a mean prevalence of preadolescent mental health problems of 13.2% (median = 12.2%, range = 1.4% to 30.7%). Furthermore, an estimated 14% to 25% of children meet criteria for a psychiatric diagnosis at any given time (Brandenburg, Friedman, & Silver, 1990). Of perhaps even more concern, however, is the fact that while such a significant number of America's youth struggle with psychological difficulties, only approximately one-quarter to one-third of these children are receiving mental health services to address their problems (U.S. Department of Health and Human Services, 2001; United States Office of Technology Assessment, 1991).

Researchers and practitioners in the mental health field have made significant strides in developing and disseminating evidence-based practices for psychological difficulties such as anxiety, depression, and disruptive behavior disorders. Following

these developments, practitioners and researchers alike are charged with transporting these treatments out of laboratory or university-based clinics and into real-world settings such as community-based clinics and schools. Additionally, these treatments must be further disseminated such that they can be implemented with high fidelity by community practitioners.

One challenge, however, is that in many different parts of the country, there is a significant shortage of practitioners who are qualified to provide such treatments in an effective manner. (Starr, Campbell, & Herrick, 2002; Stiffman et al., 2000; U. S. Department of Agriculture, 2000; U.S. Congress, 1990; U.S. Department of Health and Human Services, 2001). This shortage is even more dramatic in rural areas, where the Office of Technology Assessment (U.S. Congress, 1990) estimates there are less than half as many health providers per capita than there are in urban areas. In 1990, the federal government responded to this shortage by reauthorizing the National Health Service Corps (NHSC), which resulted in the extension of designated "psychiatric health professional shortage areas" (HPSAs) to "mental health HPSAs." This new definition also broadened the cache of professionals who can be identified as mental health professionals, including clinical psychologists, clinical social workers, marriage and family therapists, and psychiatric nurse specialists. This mental health designation was intended to "(1) assure that mental health services are available and accessible to underserved populations; (2) assist in the retention and recruitment of mental health providers in designated areas; and (3) assist in the determination of unusually high mental health needs" (Health Resources and Services Administration Bureau of Health Professions, 1990a). Criteria for HPSAs include stipulations for geographic areas,

population groups, and facilities, such as federal or state correctional institutions, state and county mental hospitals, and community mental health centers. For each of these domains, there are clear criteria for population-to-mental-health-provider ratios that assist in the determination of which areas are to be considered HPSAs (Health Resources and Services Administration Bureau of Health Professions, 1990b). As mental health providers are generally sparse in rural areas, it follows that many rural areas are now considered mental health HPSAs.

Residents of rural areas are also characterized by less frequent use of preventative and screening services, fewer contacts with physicians, and less access to health care industry technological advances (DeLeon, Wakefield, & Hagglund, 2003; Goldsmith, Wagenfeld, Manderscheid, & Stiles, 1997; Merwin, Goldsmith, & Manderscheid, 1995; U.S. Congress, 1990). Furthermore, recent research suggests that rural youth struggle with mental health problems that are equally functionally impairing as the problems encountered by nonrural youth, who more commonly receive early screening, diagnosis, and treatment (Walrath, Miech, Holden, Manteuffel, Santiago, & Leaf, 2003). In response to such conditions, recent federal initiatives such as the *President's New Freedom Commission on Mental Health* (2003) have called to action researchers and practitioners in multiple disciplines to collaborate in the extension of evidence-based mental health services to those in need, including families in geographically isolated, impoverished, or otherwise underserved areas.

As virtual "gatekeepers" of mental health service utilization by their children, parents play perhaps the most central role in helping children access and benefit from the psychological services that may exist in their area. If parents are unaware of such

services, children will be unable to access services. Furthermore, if parents do not perceive psychological services as helpful, or if they expect to be embarrassed by seeking services for their child, children will not be able to benefit from the services that are available. Therefore, the goal of the present study is to examine parents' perceptions of what services are available in their communities, as well as what they expect from treatment in terms of availability, process, outcome, and relationship with the therapist. Identification of inaccurate perceptions or knowledge of available therapeutic services may serve to further inform the national movement toward extending evidence-based mental health therapy services into underserved communities by identifying salient barriers to service utilization. The following presents a review of the mental health services available in nonrural and rural areas. Thereafter, discussion of relevant findings regarding known barriers to care in rural areas will be presented, followed by rationale and methodology for the current study.

## Mental Health Services across Rural and Nonrural Areas

With so many children suffering from psychological challenges, it follows that there should be a large net of mental health services to address the many needs. However, disparities between rural and nonrural locales remain in both service availability and utilization (Rost, Fortney, Rischer, & Smith, 2002). Indeed, because of such disparities, recent federal initiatives are beginning to address these needs by calling for extension of mental health services into underserved areas. Kathryn Rost and associates (2002) recently completed the most comprehensive review of the literature on rural mental health services available and arrived at some remarkable conclusions regarding the state of service extension into underserved areas. This review focuses

largely on general mental health rather than specifically focusing on children's mental health issues. However, it serves as a valuable point of departure for examinations of rural children's mental health, as there are no comparable reviews specific to rural youth. Additionally, because adult parents often are so influential in whether or not children gain access to mental health services, it follows that many of the same issues surrounding rural adult mental health are applicable to children.

Rost utilizes a conceptual framework for reviewing the literature that views an individual's perception of need for treatment and access to mental health care as a dynamic interaction among the following factors: (a) individual characteristics such as socioeconomic status; (b) an individual's social network of supports; (c) health plans that cover the monetary costs of service utilization; and (d) the mental health service delivery system available in the community. Each of these issues will be discussed; however, it is important first to address relevant definitional issues as well as findings regarding perceived need and access in rural and nonrural areas follows.

*Definitional Issues*

Unfortunately, much of the literature reviewing characteristic differences in rural populations versus nonrural populations is fraught with methodological complications and disagreement on what constitutes "rural" areas versus "frontier" areas (Cooper & Wagenfeld, 1998; Hill, Howard, Weaver, & Stamm, 2003; Nordal, Copans, & Stamm, 2003) and how these should be separated analytically from urban and suburban areas.

Currently, there are federal guidelines from the U. S. Bureau of the Census (U.S. Bureau of the Census, 2001) and the U.S. Office of Rural Health Policy (Ricketts, 1999) on these definitions that focus on population density. Specifically, "rural" areas are

defined by the U.S. Bureau of the Census as those of 1,000 or fewer persons per square mile. This can be further specified by denoting "frontier" areas as those that have seven or fewer persons per square mile. It is important to note that these definitions also take into consideration social and economic activity of an area's population; both rural and frontier areas tend to have unstable economies, which has an unfortunate consequence for children's mental health (Nordal et al., 2003).

Past research, however, has not always had the luxury of such guidelines. Methodological definitions are sometimes arbitrary according to the sampling strategies of particular researchers (Rost et al., 2002) and may not fully consider alternative yet equally important variables such as local infrastructure. Additionally, Stamm and colleagues noted that some theorists prefer to define rural areas as those in which the population density is 50 or fewer people per square mile (Stamm et al., 2003). Rost and colleagues' review of rural mental health issues employs the distinction "metropolitan versus nonmetropolitan" with the following caveat: "Residence in a county outside a metropolitan area was the predominant (but by no means exclusive) definition of rurality used in the studies we identified" (Rost et al., 2002, p. 232).

The following presents a discussion of Rost and colleagues' main findings relevant to the state of mental health services in rural areas. To facilitate the current discussion, the terms "rural" and "nonrural" are to be used in place of "nonmetropolitan" and "metropolitan."

*Perceptions of Need and Access*

Individuals' perception of need for mental health services is one of the primary factors that influence service utilization and demand. For example, the national

movements to expand treatment agencies and networks into underserved areas likely will be ineffective if community members do not perceive services as necessary (Fox, Blank, Berman, & Rovnyak, 1999; Issakidis & Teesson, 1999; Meadows, Harvey, Fossey, & Burgess, 2000; Mulder, Linkey, & Hager, 2003; Staudt, 2003). Research suggests that rural individuals, as compared to individuals in nonrural areas, require a much higher degree of perceived need to initiate help seeking behaviors such as requesting a referral to a mental health professional (Rost et al., 2002). Indeed, this threshold may be so high that even minimal barriers (e.g., a child's hesitation to attend therapy, competing social activities) would prevent service utilization.

Access to care is also an element of perception analyzed in Rost's review, but this notion actually encompasses a number of factors, including the following: (a) accessibility, including how long it takes to travel to a service agency; (b) availability, including awareness of who and where the providers are; (c) affordability; and (d) acceptability, including stigma associated with receiving treatment and anonymity offered by the providing agency. Compared to their more metropolitan counterparts, rural individuals and families are clearly at a disadvantage in most of these domains.

*Accessibility*. It is well documented that due to difficult terrain, geographical boundaries, and sparse population densities, rural individuals must travel significantly greater distances to attend treatment than individuals in nonrural areas (Beymer & Hutchinson, 2002; Campbell, Richie, & Hargrove, 2003; DeLeon et al., 2003; Hill et al., 2003; Merwin et al., 1995; Nordal et al., 2003; U.S. Congress, 1990). Thus, perceived access certainly may be lower in rural areas simply due to the fact that it requires many more resources such as time and money to travel to the available service agencies. Rost's

research group also found that perceived accessibility is lower in rural areas in both specialty and general health sectors as compared to nonrural areas (Rost, Fortney, Zhang, Smith, & Smith, 1999).

*Availability.* Parental perceptions of the availability of psychological services are certainly influenced by the actual availability of services in their area. The actual availability of mental health providers is far less in rural areas compared to nonrural areas, as evidenced in part by recent legislation to broaden the net of mental health services into underserved areas and HPSAs (Atkins, Frazier, Abdul Adil, & Talbott, 2003; Beymer & Hutchinson, 2002; Campbell et al., 2003; Cooper & Wagenfeld, 1998; Cutrona, Halvorson, & Russell, 1996; DeLeon et al., 2003; Health Resources and Services Administration Bureau of Health Professions, 1990b). Furthermore, because rural areas are geographically and socially isolated compared to more nonrural areas and because advertising efforts are likely less pronounced in rural areas, awareness of who the providers are in one's area may be much lower in rural versus nonrural areas (Fox et al., 1999; Rost et al., 2002; Starr et al., 2002; Teleki & Buck-Gomez, 2002; Walrath et al., 2003).

*Affordability and acceptability.* Although there appears to be no difference in perceived affordability of services between rural and nonrural areas, perceived anonymity of seeking treatment is lower in rural areas (Rost et al., 1999). This further decreases the likelihood that rural individuals will engage in treatment (Rost et al., 2002; Rost et al., 1999). Additionally, individuals who have never used mental health services are less likely to be able to even respond to prompts (via both research surveys and referrals from community resources) about perceived affordability and acceptability because they

simply have had no personal interaction with the mental health service delivery system. These issues are highlighted by the well-documented fact that rural individuals are less likely to utilize outpatient mental health treatment than are nonrural individuals (Campbell et al., 2003; DeLeon et al., 2003; Fox et al., 1999; Hill et al., 2003; Nordal et al., 2003; Ricketts, 1999; Rost et al., 2002; Sears, Evans, & Kuper, 2003; The Rural and Appalachian Youth and Families Consortium, 1996; U.S. Congress, 1990). It should be noted, however, that Rost (2002) asserts that these findings are difficult to interpret because they have not been controlled for need of service.

*Socioeconomic Status*

Perhaps the most salient individual characteristic influencing mental health service utilization is socioeconomic status (SES), as poverty is a significant negative predictor of mental health service utilization (Campbell et al., 2003; Shapiro, Skinner, Kramer, Steinwachs, & Regier, 1985). SES, an estimate of the relative position of an individual or family in the structure of social status, is often defined by Hollingshead's (1975) four-factor model. This model takes into account level of education, occupation, sex, and marital status and yields five different categories of status, listed in the order of highest to lowest socioeconomic status: "Major business and professional;" "Medium business, minor professional, technical;" "Skilled craftsmen, clerical, sales workers;" "Machine operators, semiskilled workers;" and "Unskilled laborers, menial service workers" (Hollingshead, 1975, p. 23). While this model is certainly not a perfect reflection of families' standing in society and has been criticized for limited validity and practicality, Hollingshead's model continues to be widely used in current social sciences research.

According to the U. S. Department of Agriculture (2004), 14.2% of individuals living in rural areas live in poverty. This statistic, stable since the 2001 onset of the current economic recession, is compared to the 2003 metropolitan area poverty rate of 12.1%. Over half (58%) of the 7.5 million rural people who live in poverty are in rural families living extreme economic in distress: "at or below 300% of the poverty level compared with 46% of urban families" (Stamm et al., 2003, p.4). Furthermore, compared to nonrural individuals, rural individuals are less likely to have completed a high school education; indeed, over 50% of all impoverished infants (many of whom are also rural children) have parents who did not complete high school (Halpern, 1993). Compounding the problem of general poverty, child poverty rates (18% in 2003) are above those of the general population (12.5% in 2003). Further, 21% of rural children are impoverished, compared to 18% of nonrural children (U. S. Department of Agriculture, 2005). Thus, rural areas are more likely than nonrural areas to be populated by families whose SES falls in the lowest categories of the Hollingshead model. This is especially true for the region in which the current study was conducted (Southeastern Ohio).

According to statistics provided by the State of Ohio Job and Family Services Office of Workforce Development and Bureau of Labor Market Information, Southeastern Ohio counties are commonly above the April 2005 United States unemployment rate of 4.9%. Further, the two rural counties (Athens and Hocking) from which participants were recruited for the current study were at or above the April 2005 Ohio state unemployment rate of 5.9%. Indeed, one county, Hocking County, from which over 50% of the sample was recruited, has an April 2005 unemployment rate of 7.8%. These rural unemployment rates are contrasted with the nonrural county from

which the Urban sample was recruited (Franklin), which had an April 2005 unemployment rate of 5.4%. A complete map of April 2005 unemployment rates across the 81 Ohio counties is provided in Appendix C.

*Social Support*

In addition to socioeconomic status, social support also has a dynamic influence on mental health service utilization in rural America as compared to nonrural areas. In general, social support is defined by those social interactions or relationships that provide actual assistance or a feeling of attachment to a person or group that is perceived as caring or loving (Hobfoll & Stephens, 1990). It has been asserted that key components of perceived social support are the size of the network of social supports, interrelatedness of the network members, frequency of contact with these members, and how long one has known the members of the social support network . Although there is a dearth of empirical investigation of social support as it specifically relates to mental health system service utilization, Sullivan and associates found that rural adults with mental health difficulties have qualitatively different social support networks compared to their nonrural counterparts (Sullivan, Jackson, & Spritzer, 1996).

In rural areas, as compared to nonrural areas, social networks tend to have a greater influence on an individual's decision about whether or not to seek mental health services due to characteristic differences of individuals' social networks in these regions (Rost et al., 2002; Sullivan et al., 1996). That is, rural individuals' social support networks are likely to be smaller yet more interrelated, of longer duration, and characterized by more frequent contact (Cutrona et al., 1996; Fox et al., 1999; Keefe, 1988; Paige, Kitzis, & Wolfe, 2003; Rost et al., 1999; Sullivan et al., 1996; The Rural

and Appalachian Youth and Families Consortium, 1996). This could potentially influence the decision to seek help for a child struggling with mental health problems. For example, if parents perceive a great amount of social support in their immediate environment, they may be more likely to rely on this social network in dealing with problems. Alternatively, one's social network, especially immediate family members, may disapprove of the use of mental health services for any member of the family. In either case, parents may be less willing or see less of a need to seek services for their child outside this network. Instead, they may opt to rely on their support network, including alternative familial caregivers and elders' wisdom to help them cope with their difficult child. It has been suggested that the latter of these two cases occurs more often than the former in rural areas, where kinship communities are common (The Rural and Appalachian Youth and Families Consortium, 1996).

*Health Care Coverage*

In most circumstances, individuals also must consider their ability to pay for such assistance when deciding whether or not to seek mental health services. Some individuals have the benefit of carrying health insurance through an employer or through social services such as Medicaid. Others are required to pay out-of-pocket for services rendered. Recent research suggests that having health insurance is associated with higher levels of service utilization (Lambert, Hartley, Bird, Ralph, & Saucier, 1998, as cited in Rost et al., 2001). Rural individuals are more likely to be self-employed (e.g., in farming or construction) or employed by smaller companies that do not offer health care coverage for their employees (Coward, Clarke, & Seccombe, 1993). More disturbingly, even if they have the luxury of health insurance that covers mental health service utilization,

rural individuals pay higher premiums and have higher deductibles than do nonrural residents, often because health service providers in rural areas are far removed from metropolitan centers where health service delivery systems are more concentrated (Hartley, Quam, & Lurie, 1994). Further, according to 2001 statistics form the U.S. Department of Agriculture (2005), nonrural children were actually less likely than rural children to be covered by health insurance (9.2 million children vs. 1.6 million children, respectively); however, a greater percentage of rural children (2.7%), as compared to nonrural children (2.1%) needed medical care during that year but did not receive it due to their family's inability to pay for the care. Thus, even if individuals do have health care coverage, out-of-pocket expenses continue to impede children's acquisition of needed health care. Given the higher likelihood that rural families have lower SES compared to nonrural families, these expenses present an even greater barrier to rural families.

Adding to this disconnect between need and feasible utilization, Rost's review also cites several studies and managed care policies that illustrate the trends resulting from consumer demand. For example, there is little incentive for managed care companies to extend and bolster their panels of service providers in rural areas due to the historically low service utilization in these areas. Additionally, the high cost of recruiting and retaining providers into more rural areas that are distant from centers of urbanization and technology development further deter comprehensive systems of care from extending fully into underserved areas.

*Fragmentation in Systems of Mental Health Services Delivery*

The final factor cited by Rost and colleagues as being influential in one's utilization of mental health services is the actual delivery system of these services. Perhaps one of the adjectives most commonly used to describe mental health service delivery systems is "fragmented" (Hartley et al., 1994; Hill et al., 2003; Stamm et al., 2003; U.S. Congress, 1990; Walrath et al., 2003). That is, there are at best loose ties between and within general medical services, specialty mental health care centers, social assistance agencies, schools, juvenile justice workers, ministers, social workers, and friends and relatives. Yet most, if not all of these, are persons to whom individuals may turn for mental health assistance. In particular, no one public service system is charged with the mental health care of children and adolescents (Horwitz & Hoagwood, 2002). Points of access and locations of public treatment delivery are many, ranging from general health clinics to schools to community mental health centers to social service agencies. Generally, there is no single point of entry to public mental health service for children. Further, funding sources do not proportionally connect these various service agencies, which often results in families having to enter various service systems multiple times with little continuity between agencies.

According to a recent review by Starr and colleagues (Starr et al., 2002), the fragmentation of services in rural areas profoundly impacts children and manifests in poor collaboration among providers and agencies managing families' cases. Indeed, one of the barriers specifically identified as powerful in rural communities was the mis- or underidentification of childhood mental health problems by primary care physicians. Furthermore, parents in rural areas often lack familiarity with the public mental health

system in their area and services available for children in particular. These phenomena certainly contribute to the low rates of mental health service utilization rates of only 25% to 33% of those children who are in need of services (U.S. Department of Health and Human Services, 2001; United States Office of Technology Assessment, 1991). Based in large part on the persistent lack of resources in rural and impoverished areas, a recent Presidential report called for extension of interdisciplinary mental health services into rural and other extremely underserved American communities so that professionals can reach and assist as many families as possible (New Freedom Commission on Mental Health, 2003). The President identified three general barriers to quality mental health care: (1) stigma, (2) "unfair treatment limitations and financial requirements placed on mental health benefits in private health insurance" (p. 1), and (3) fragmentation of the mental health service delivery system. Identified goals included promotion of health education to include increasing awareness that mental health is an essential component of overall health; refocusing the system to be driven by consumer and family needs as opposed to institutional policies; and closing the gap in mental health services by eliminating disparities in care and funding streams, increasing research and technology associated with the development and provision of quality mental health care, and expanding early screening, assessment, and referral services.

Although it provides hope and renewed efforts to reach people in need, this report is relatively recent and efforts to close the substantial gap between needs and accessible systems of care are slow to produce change. Indeed, rural areas have not experienced the same increase in specialty mental health providers that was seen in more urban centers throughout the 1990s (Rost et al., 2002). Throughout the 1990s, nonrural areas witnessed

an increase in specialization of health care, including mental health professionals who specialized in areas such as childhood mood disorders, chronic health issues, or violence prevention and treatment of disruptive behavior. Rural areas, however, did not enjoy this proliferation of specialty services. Therefore, rural individuals are still faced with longer travel times to mental health service agencies and must choose from among a comparatively more narrow pool of providers than do individuals in urban areas. This finding remains even when analyses control for the status of the local economy in these areas (Fortney, Rost, & Warren, 2000; Rost et al., 1999). Indeed, due to the broad shortage of mental health providers in these areas, the available professionals typically are generalists, meaning that they do not dedicate their practice to any one area of psychological disorder (Flisher et al., 1997; Hill et al., 2003).

Fragmentation and limited access to specialty providers has an even greater negative impact on children. Children's mental health providers often must consult with multiple professionals, including school personnel, juvenile justice workers, and pediatricians. Further, fragmentation results from disproportionate federal and regional funding to various public health agencies, which contributes to families entering the public mental health system through these various entities Consultation often may be too time consuming or difficult to coordinate to be efficient and beneficial. This multiple-entry phenomenon, in turn, leads to greater fragmentation.

Clearly, the review by Rost and her colleagues includes a number of striking findings related to the general perceptions of need and access to mental health care in rural America. It was noted that perceived need for mental care services is influenced by a dynamic interplay among many factors. Perceived access entails perceptions of

accessibility, availability, affordability, and acceptability. These factors interact with other individual and situational variables including socioeconomic status, availability and efficacy of social support networks, health care coverage, and local mental health care systems. This comprehensive review provides invaluable information to researchers and practitioners alike in terms of identifying unique and powerful factors that influence mental health care service utilization in rural America.

The review, however, also highlights the many methodological issues that render this and other broad examinations of mental health service utilization in rural America a difficult task. First, there remains a distinct lack of accepted definition of what constitutes a "rural" versus "nonrural," or a "nonmetropolitan" versus "metropolitan" area. The absence of an accepted definition presents a number of difficulties for investigators who are following the national call to extend research and applied service systems into underserved areas, including sifting among various cultural, economic, and political definitions of rurality. Second, generalizations about what factors contribute to a rural individual's decision whether or not he or she will engage in mental health service are limited by the fact that most studies to date have not controlled for need for service or severity of mental health difficulty. This need almost certainly contributes to mental health service utilization, but has not regularly been included in analyses of predictors of utilization.

Finally, the review by Rost and colleagues largely focused on adults. Indeed, very little is known about the factors that influence how a child is directed toward mental health care in rural locations. Given the impact of factors such as perceived availability and acceptability on adults, it is likely that these factors also impact children's access to

and benefit from mental health services because parents are key in the acquisition of services for children. Rost repeatedly calls for future research to examine the pathways to care for children and adolescents as well as improved interventions and promotion thereof to increase accessibility, acceptability, and utilization of mental health services for children and families. This is a major goal of the current study. This study advances the literature by examining parents' perceptions of the availability and acceptability of services as well as their perceptions of what might bar them from seeking services if their child was in need of mental health assistance.

The rural communities in which this study was conducted are located in the Appalachian region of Southeastern Ohio. Because many of the counties in this region are HPSA and/or MHPSAs, there is evidence to suggest that Appalachian children and families in this region of Ohio encounter increased barriers to quality mental health care compared to individuals who live in nonrural areas (Appalachian Regional Commission, 1994; The Rural and Appalachian Youth and Families Consortium, 1996). Additionally, it is important to examine the subcultural context within rural areas that may contribute to these barriers or manifest additional obstacles to children's mental health care utilization. Specifically, the Appalachian region carries a unique sociopolitical and economic background that has clear links to the current association between the cultural context and mental health service utilization. The following presents a discussion of literature on the sociopolitical and economic underpinnings of rural Appalachia relevant to the current study.

## Appalachian Ohio

Just as there has been considerable disagreement over the definition of rural territory, so too has there been historical discrepancy over what constitutes Appalachia, including its unique geography, culture, and financial characteristics that may mark it as significantly more disadvantaged than other rural areas (The Rural and Appalachian Youth and Families Consortium, 1996). In fact, the Appalachian region may be viewed as a sociopolitical creation, a designation made in 1965 by the U. S. Congress in response to a chronically depressed economic situation in a particular region of the United States (The Rural and Appalachian Youth and Families Consortium, 1996). Appalachian Ohio accounts for a small portion of the entire Appalachian region, which stretches across 200,000 square miles from New York to Mississippi, including all of West Virginia and portions of 12 other states. Admittedly, there is significant heterogeneity within the Appalachian culture. However, there are important commonalities throughout the region at large and within smaller portions of the region. For example, due to similar topography, demographics, and employment rates, Appalachian Ohio may be more similar to Appalachian Pennsylvania and West Virginia as opposed to Appalachian portions of Mississippi or Alabama (Appalachian Regional Commission, 2002). Among its 410 counties are 29 counties in the Eastern and Southeastern region of Ohio (see Figure 1 in Appendix D).

This study focuses on portions of the Southeastern region of Appalachian Ohio, specifically Athens and Hocking counties. Although Appalachian Ohio counties account for over one third of the state's total number of counties, this area, with its unique strengths and needs compared to other regions of the state, remains an underserved and

understudied portion of the state. The unique social, economic, and political characteristics of the Appalachian culture likely have a significant impact on help-seeking behaviors with regard to mental health services. Thus, they need to be studied and understood if we hope to make evidence-based treatments acceptable to and utilized by persons indigenous to the region.

*Sociopolitical History*

The Appalachian region is one rich in natural resources such as coal and lumber. However, during the industrial revolution of the late 1800s and early 1900s, large outside corporations found clauses in land ownership documents that left the rights to minerals both above and below ground outside the realm of individual property deeds. Thus, absentee corporate owners moved through Appalachia in waves, buying massive plots of land for its wealth of mineral resources (Lohmann, 1990). Large companies then owned much of the land in Appalachia, but refused to locate headquarters in the region, which would have provided a significant opportunity for widespread employment. Therefore, the people in the region often were left to feel pillaged and defensive against further corporate or federal involvement in the region. Economically, this resulted in chronic and intergenerational poverty in the region because indigenous people were left to work for extremely low wages that rarely covered living expenses. Additionally, regional economic distress prevented improvements to infrastructure such as the building of roads, schools, and social service agencies, which caused many communities to be extremely isolated well into the latter half of the 20$^{th}$ century (Beaver, 1988; Couto, 1994). Therefore, people indigenous to Appalachia often have felt particularly taken advantage of and thus have developed a sense of distrust towards those not from the region, i.e.,

"outsiders." Indeed, much of the pessimism and distrust for "big business" or "outsiders" that is often used to characterize people from Appalachia is an artifact of the region's loss of ownership of its indigenous property and rich resources.

*Appalachian Values*

Although several studies have attempted to characterize values and social norms associated with the Appalachian culture, there is a general dearth of empirical data to support common characterizations of this region. Indeed, many stereotypes exist that negatively characterize people from the Appalachian region, and the lack of empirical data to support or dispute these depictions sustains more global generalizations. That said, however, there are a number of descriptive studies that speak to historical patterns and values that are common to the Appalachian region. Generally speaking, the values of people indigenous to Appalachia can be characterized by individualism, faith, modesty, strong familial ties, and a sense of place that ties them to their geographic and familial homes (Duncan & Lamborghini, 1994). Historically and due in large part to geographical isolation from industrialized portions of the country, people from Appalachia were self-sufficient. It has been reported that they often hand-crafted all of their food, clothing, shelter, and technological needs. Much of this self-reliant approach remains today, as several descriptive studies have found that many people from Appalachia continue to be notably independent, value solitude, and are proud, hard working individuals(Beaver, 1988; Duncan & Lamborghini, 1994; Lohmann, 1990). People indigenous to Appalachia also can be characterized as having a strong sense of place that ties them to family roots and provides them with a sense of safety and security, where differences are accepted. Descriptive researchers have noted that people from

Appalachia tend to value their privacy and are generally modest individuals, which stems from a strong history of faith. Indeed, Appalachian culture is woven with religious principles, including salvation striving, fatalism, and a pessimistic social gospel (Duncan & Lamborghini, 1994).

*Poverty in Appalachia*

Within its 399 counties, the Appalachian region houses families that are characterized by more married-couple households, majority Caucasian racial background of Scotch-Irish descent, and a 1990 median family income that was 83% of the median U.S. family income (Appalachian Regional Commission, 1994; Beaver, 1988; Couto, 1994). Furthermore, statistics from the Rural and Appalachian Youth and Families Consortium (1996) indicate that the unemployment rates in Central Appalachia, portions of which are the focus of the present study, are twice as high as the national average. Cuoto (1994) posited that the chronic poverty and marginalization that occurs in Appalachia is in part due to the geographic and social isolation and the continuing stigma and stereotypes associated with the individuals in the region (i.e., that multiple generations of individuals are "ignorant," "backwards," "lazy," etc.) that make overcoming chronic economic depression significantly more difficult.

As can be seen in the map provided in Appendix D, Appalachian Ohio has been identified as a "Governor's Economic Development Region." This indication is made for areas of regional economic distress, where specific state- and federally-funded economic assistance activities are targeted to stimulate economic growth. Across all 29 Appalachian Ohio counties, the median family income based on state tax returns was 84% ($25,641) of that state median income of $30,462 (Coalition of Rural and

Appalachian Schools, 2005). Of these Appalachian counties, Athens county is designated by the Appalachian Regional Commission as an economically distressed region, based on three-year average unemployment rates, per-capita market income rates, and poverty rates (Appalachian Regional Commission, 2004).

*Family Structure*

Appalachia is often characterized by its family structure, which, scholars claim, highly values and relies upon extended family for social, economic, and health support. People indigenous to Appalachia have a long history of being family-focused, often having traditionally male-dominated households with very clear definitions of responsibilities and role expectations throughout the culture (Duncan & Lamborghini, 1994). Duncan and Lamborghini (1994) found that females in indigenous Appalachian families are generally subservient, with mothers playing a key role as primary caregiver and health care provider. Further, people from Appalachia often view their own identity in terms of relationships with kin. Indeed, the term "kinship communities" (The Rural and Appalachian Youth and Families Consortium, 1996, p. 387) is often used to describe the common geographic areas that are populated by numerous members of the same extended family who live within a short radius of one another. Often, multiple generations of the same family live on the same plot of land. It is common in Appalachian areas to see large, extended families that are fiercely loyal to one another. Coupled with the distrust of outside entities, this tight-knit family structure can lead to isolation from others. Indeed, it is often noted that people from Appalachia prefer to turn to family members for social, physical, emotional, and financial support rather than to seek assistance from community or regional agencies (Appalachian Regional

Commission, 1994; Couto, 1994; Keefe, 1988; Lohmann, 1990). This strong connection to family may be viewed as strength in social support; however, from the perspective of the mental health profession, it can be viewed as a barrier to obtaining needed treatment.

*Mental Health Service Utilization*

Clearly, issues such as the sociopolitical and economic history of the Appalachian region as well as general characterizations of Appalachian family structure present cultural characteristics that define the region as unique in multiple ways. It is likely that these characteristics have a significant impact on the utilization of mental health services for children in the region. In rural communities, and especially socio-historically tight-knit communities such as those found in Appalachia, parents and extended family values play a key role in the use of mental health services for children (Morrisey-Kane & Prinz, 1999). As mentioned above, this extended social support network may be a strength of these communities; however, it also may interfere with mental health service utilization. Due to the relative influence of family members, parents may be less likely to seek services for their child if family members disapprove of such services. In addition, people indigenous to Appalachia are noted as being especially motivated to portray their culture as being marked by multiple strengths because of the popular negative stereotypes of the region and its inhabitants. It has been suggested that seeking mental health services is seen by people from Appalachia as an admittance of weakness or failure of the family to properly support an individual (Beaver, 1988; The Rural and Appalachian Youth and Families Consortium, 1996). Furthermore, it has been suggested that individuals from Appalachia often are influenced by a number of socioecological characteristics such as low perceived social support outside of strong familial

connections, feelings of disconnectedness from and distrust for the larger American society, and resistance to bureaucratic interventions (The Rural and Appalachian Youth and Families Consortium, 1996).

It is likely that any one of these perceptions might decrease the likelihood of participating in mental health treatment. The combination of them almost surely further compounds an Appalachian individual's willingness to seek services for his or her child. It is important to understand both the unique cultural perceptions of mental health services held by people from Appalachia as well as their current awareness of available services in order to increase the availability and acceptability of such services in this region. These characteristics of Appalachian culture present significant challenges to the likelihood that parents would be willing to seek outside mental health services if their child were in need. However, these do not exist in isolation. A discussion of more general and well-known barriers to care follows.

## Barriers to Mental Health Care Services for Children

Consistent with the literature described above, low socioeconomic status (SES) has often been identified as a key barrier to the use of mental health services for children (Campbell et al., 2003; Costello, Keeler, & Angold, 2001; Flisher et al., 1997; Glied, Hoven, Moore, Bowen-Garrett, & Regier, 1997; Halpern, 1993; Lohmann, 1990). Beyond SES, however, are myriad other issues that present significant challenges to connecting children in need of mental health services with available providers. The following presents a brief discussion of a framework developed by Kazdin and colleagues (Kazdin et al., 1991; Kazdin, Holland, Crowley, & Breton, 1997; Kazdin & Wassell, 1999) for conceptualizing barriers to mental health treatment participation.

Alan Kazdin and his research group (Kazdin et al., 1991; Kazdin et al., 1997; Kazdin & Wassell, 1999) have presented perhaps the most generally accepted model of barriers to mental health care for youth. In this model, barriers to treatment participation are conceptualized in terms of five domains: (a) stressors and obstacles that compete with treatment, including transportation, illness, child care, and time constraints; (b) treatment demands and issues, including child refusal to engage in treatment, billing hassles, and parent input in developing treatment goals; (c) perceived relevance of treatment, such as interest in attending treatment, expectations of treatment progress, and outcome of treatment; (d) relationship with the therapist such as hesitation to disclose personal information, therapist's confidence in treatment and the parent's ability to carry out interventions at home); and (e) critical life events, such as a change in or loss of job, hospital admission, divorce, and legal problems.

Kazdin's group (Kazdin et al., 1997) evaluated and validated the *Barriers to Treatment Participation Scale* (BPTS), a retrospective measure of the above five factors related to treatment participation, on a sample of 260 youth ages 3 to 13 years referred for outpatient mental health treatment. This study followed families through outpatient treatment for disruptive behavior disorders. Treatment length was a function of age and the severity of the presenting problems and generally lasted 7 to 10 months in duration. At the end of treatment (completion or dropout), an independent administrator asked parents to complete the BTPS. Results indicated that families reporting higher barrier scores were more likely to have dropped out of treatment, stay in treatment for significantly less time, and have higher rates of cancellations and no-shows for their schedule appointments prior to dropout (Kazdin et al., 1997). These findings were

independent on the frequency of significant critical life stressors that may have occurred during the course of prescribed treatment. Additionally, barriers were stronger predictors of treatment dropout than were family, parent, and child factors such as maternal age, child aggression, and chaotic family environment. Indeed, results indicated that barriers accounted for a significant amount of variance in treatment dropout above and beyond that accounted for by family, parent, and child factors. Thus, perceived barriers serve as a unique and critical indicator for treatment participation.

Kazdin's work presents one of very few comprehensive models of barriers to children's mental health care; however, it is not without its limitations. Specifically, much of the empirical work supporting Kazdin's model and the development of the BTPS focused on conduct disordered youth, which impacts the generalizability of findings to other clinical youth populations. Additionally, the sample was recruited from a single outpatient clinic, which additionally limits the applicability of his model. Further, Kazdin's treatment outcome data resulted only from cognitive-behavioral approaches and does not assess for other modalities of treatment for youth mental health disorders. Kazdin and Wassell (1999) were careful to note that many of the factors that predicted outcome, including parental psychopathology and stress, were more common for youth with externalizing disorders, rather than those struggling with an internalizing disorder. Thus, barriers to care as well as predictors of change may be differentially impacted by the type of child disorder. Further, the BTPS relied on retrospective report; thus, results may be subject to recall bias. More importantly, though, was the limitation that treatment dropout may have impacted assessment results. Kazdin and colleagues also acknowledged that "child variables, relationship factors, and perceptions of the

treatment process may also contribute…by influencing barriers that parents perceive" (Kazdin et al., 1997, p. 461), but these factors were not evaluated. The following presents a discussion of recent research that does examine some of these barriers and provides additional support to Kazdin's model.

*Parental Awareness of Mental Health Problems*

*Problem severity*. One barrier of particular of interest is parental awareness of the severity of children's mental health problems. It has been shown that in some cases, family members may be relatively poor at perceiving and acknowledging children's behavioral or emotional disorders. A recent study (Teagle, 2002) of 1,420 rural North Carolina youth-parent pairs focused on parents' awareness of children's mental health problems. From among 4,500 children in school systems in 11 rural North Carolina school systems, the youth of these pairs were identified because they scored above a predetermined cut point of 20 items of at least moderate severity on a parent-report screening instrument based on 55 items from the Child Behavior Checklist (Achenbach, 1991). Results of this study present striking evidence that parents may not always be aware of their children's psychological difficulty. For example, data indicated that of the parents of youths who had at least one DSM-IV (American Psychiatric Association, 1994) diagnosis (based on rating scale data), only 39.0% perceived any youth psychological problem at all. Even fewer (31.7%) reported any significant negative impact on the family secondary to the youth's functioning. Further, parental problem perception was an important predictor of specialty mental health service utilization. Interestingly, this perception was not a predictor of general medical or of school mental health service utilization. These findings suggest that without at least recognition that

there is a problem, parents appear to be much less likely to engage in youth mental health services unless legally ordered to do so by agencies such as children's protective services or juvenile justice systems.

*Type of problem.* The type of behavioral or emotional problem may impact parents' decision to seek assistance for their child or adolescent. For example, parents of children with externalizing behaviors such and impulsivity and conduct problems are much more likely to seek and utilize mental health services than are parents of children struggling with internalizing disorders such as depression or anxiety (Wu et al., 1999). This is due in large part to the fact that externalizing behaviors are much more likely to be noted by other individuals in the child's life (e.g., teachers, coaches) and to be more overtly related to impairment in school and social functioning. Further, parents tend to be less accurate reporters of youths' internalizing symptoms (e.g., anxiety, depression) compared to externalizing problems such as attention deficits or oppositionality (Crijnen, Achenbach, & Verhulst, 1997). Unfortunately, data on whether or not clinical characteristics in children and adolescents are predictive of rural mental health service utilization are equivocal at present (Rost et al., 2002; Starr et al., 2002).

*Insurance Coverage*

Insurance coverage, including managed care and Medicaid plans that benefit youth and families, presents yet another barrier to care for children. According to a recent review of rural children's health needs, only 55% of rural children benefit from employer-sponsored health plans and only 23% are covered by Medicaid (Clark, Savitz, & Randolph, 1999). In 1998, 35.8% of Ohio children between birth and age four and 21.5% of Ohio children between the ages of five and 18 years were eligible for Medicaid

coverage (Office of Ohio Health Plans, 2000). However, examination of Medicaid eligibility by Ohio county reveals substantially higher rates of Medicaid eligibility in Athens County (55.1% for birth to four years, 27.7% for ages 5-18 years). Hocking County had higher rates of early childhood Medicaid eligibility (41.4% of children between birth and four years of age were eligible in 1998), but lower rates of later childhood eligibility (17.4% for ages 5-18 years). Franklin County had Medicaid eligibility rates similar to the state average (32.9% for birth to four years, 22.6% for ages 5-18 years).

Compounding significantly poorer health care coverage in rural areas, family disruptions including divorce and single parent households are reported to be higher in rural communities (Starr et al., 2002), which significantly impacts insurance coverage. In their recent examination of factors of rural mental health services utilization, Starr and colleagues employed the United States Census Bureau's 1995 definition of rural areas: places of less than 2,500 people and areas outside of incorporated portions of extended cities (United States Census Bureau, 1995). Starr also cites significantly fewer employment opportunities in rural areas as a major factor in the lack of insurance coverage for rural children. In addition to sparse health care coverage, rural areas are also impacted by the policies of managed care companies. Due to continuing efforts to reduce costs while increasing benefits, managed care companies can, upon their annual reviews, "dump" patients from their mental health services because these patients cost more than the general medical patient (Horwitz & Hoagwood, 2002). For example, a recent article by Leibson and associates (Leibson, Katusic, Barbaresi, Ransom, & O'Brien, 2001) compared differences in the medical care costs and service utilization of

children with and without Attention-Deficit/Hyperactivity Disorder (ADHD). The results of their study suggest that children struggling with ADHD have higher mental health needs related to their impairment in social and academic functioning. They also have significantly higher general medical needs related to increased incidence of accidental injury, automobile accidents, and visits to hospital emergency departments. However, without insurance coverage of mental health services, families are much less likely to seek such services due to the often-prohibitive cost of comprehensive mental health assessment and treatment. The poverty that often characterizes rural areas, especially Appalachia, further compounds this economic barrier (Starr et al., 2002).

*Parental Perceptions of Efficacy*

As previously noted, parents might accurately be considered gatekeepers of children's mental health care. Thus, parental perceptions of self-efficacy related to resolving children's mental health problems, as well as their expectations of the outcome of mental health treatment were considered to be important variables in the Starr et al. (2002) examination of mental health utilization among rural children. It has been asserted that the belief that one's actions will result in favorable outcomes (self-efficacy), coupled with expectancies regarding the barriers to care and process and outcome of therapy, is thought to create a dynamic decision-making process in terms of how and when to go about seeking mental health services for one's child (Bandura, 1995). Because negative or fearful attitudes toward the field of mental health (both general and specialty providers) lead to negative outcome expectation (Starr et al., 2002), such beliefs will likely decrease the likelihood that the parent will be willing to help the child access and benefit from mental health services.

For example, if one's past experience with health care providers is negative, or if they are inherently distrustful of institutional assistance, that experience leads to negative outcome expectancy, which significantly reduces the likelihood that one will seek services in the future. Furthermore, rural life is often marked by conservativism and independence (often referred to as the "bootstraps" mentality). More specifically, many rural families prefer to cope with social or economic crises without the assistance of outside support, such as loans from financial institutions or legal representation in civil disputes. Additionally, this approach is likely to limit parents' willingness to accept mental health services as a viable solution to childhood psychological difficulties. Rural families, and rural Appalachian families in particular, are proud of their culture and of the strength and resolution of their families and neighbors. Thus, seeking help for mental health problems may be perceived as an acknowledgement of weakness. A parent's self-efficacy about being able to solve the problem independently may be impacted negatively if he or she were to seek outside intervention (Beaver, 1988; Keefe, 1988; Keller & Murphy, 1982; Starr et al., 2002).

*Parental Expectations of Therapeutic Relationship and Treatment Outcome*

Starr and colleagues polled a small sample of 30 parents (80% Caucasian, 80% over age 30) of rural origin regarding their expectations about outcomes of mental health treatment; relationships between the provider, parents, and the child; access to mental health; and social and cultural factors related to rurality (Starr et al., 2002). Data were collected from the county health department's Women, Infants, and Children (WIC) office and a pediatrician's office. The instrument used was the *Expectations of Mental*

*Health Care* survey (EMHC), a 37-item measure of four domains of outcome expectancies: sociocultural, relationship, treatment, and structural (Richardson, 2001).

The EMHC was developed after discussions with caregivers of youth with identified mental health problems and a literature review examining factors related to use and satisfaction with mental health services. Richardson's (2001) study was conducted with 235 parents of children between the ages of 5 and 19. Richardson stated that due to African Americans' and impoverished individuals' historically low rate of mental health service utilization, special efforts were made to recruit parents from among these two populations. Accordingly, approximately 60% of the sample was African American and half of the sample had an annual income of $20,000. All of the individuals in the study lived in an urban area of a city in the southeastern portion of the United States.

Of the 37 items on the original questionnaire, Richardson found that eight of these items had extremely low variability in response. Therefore, the final analysis of the measure examined the remaining 29 items. This instrument has been shown to have moderate internal consistency (Cronbach alpha = .76), but little other psychometric data are available, as it is a relatively new instrument developed specifically for the Starr group's study.

Results of the Starr et al. (2002) study indicated that in the rural area of the study (i.e., a southeastern U.S. county), parents expected to have a negative relationship with the mental health services provider. Specifically, issues of trust, respect, and caring about one's child and family were of particular concern to the responding parents. This finding corroborated previous findings (Garcia & Weisz, 2002) of perception of negative relationship with providers. Despite negative relationship expectations, however,

respondents were generally positive in their expectations of treatment outcome, including expecting functional improvement and feeling a sense of efficacy for taking their youth to seek professional services. Additionally, most were positive that the service providers would be confident in the effectiveness of treatments offered to the youth and family. However, it is interesting that they did not think professionals would be able to establish a therapeutic relationship with their child or adolescent. This further speaks to rural residents' concern about trust and understanding with individuals outside of their culture.

Given the sample size and a methodology limited to self-report measures completed in a community health agency, the conclusions of this study are limited in generalizability. However, they do suggest areas of caution for program developers and providers alike. It is clear that barriers to developing trust or alliance-building in the therapeutic relationship should be carefully considered in working with rural individuals, as this study suggests that a weak therapeutic relationship may be one of the strongest of barriers to care in rural samples. Providers in rural Appalachian communities must be even more cognizant of the therapeutic relationships they are attempting to foster with their clients, as those in Appalachian culture are significantly more distrustful of institutions and other outside agencies, even compared to general rural populations.

Garcia and Weisz's (2002) study of treatment dropout of 344 community mental health clinic-referred youths (ages 7 to 18 years) examined parental perceptions of reasons for dropout. In this study, parents rated the degree to which they agreed with statements that contributed to their child's treatment dropout. Items were analyzed based on their loading on five factors: Family and Clinic Practical Problems, Appointment Problems, Money Issues, Time and Effort Concerns, and Therapeutic Relationship

Problems. Results revealed that items on the Therapeutic Relationship Problems factor accounted for the most variance (16%) in reasons for youth treatment dropout in this sample. This factor included such responses as, "The therapist didn't seem to understand," "My child or I didn't like the therapist," "One or more of the staff members did not seem competent," and "I felt that the therapist or staff did not spend enough time with my child alone." Items loading on Therapeutic Relationship Problems factor accounted for almost 16% of the variance in responses. This is contrasted with the comparatively small amounts of variances accounted for by the Family and Clinic Practical Problems (7.22%), Staff and Appointment Problems (5.96%), Time and Effort Concerns (4.74%), Treatment Not Needed (4.38%), and Money Issues (3.38%) factors (Garcia & Weisz, 2002). Thus, relationship with one's therapist appears to be as significant a factor in sustaining mental health service involvement as it is in initiating the utilization of such services.

When added to known practical challenges to utilizing mental health care in rural America, therapeutic relationship concerns may further bar families in Appalachian Ohio counties from seeking and receiving any services that may be available in their local communities. However, there have been no empirical investigations of rural parents' concerns about relationship to mental health service providers as they relate to barriers to children's mental health care. This is the focus of the present study.

## The Present Study

The goal of this study was to investigate rural-nonrural differences in parental perceptions of the availability and acceptability of mental health services for elementary-

aged children, as well as barriers to care including expectations of treatment process, relationship, and outcome.

This study expanded the existing literature in several ways. First, barriers to children's mental health care were examined. At present, only one other study has done so (Starr et al., 2002). However, Starr et al.'s study was limited by a small sample size (N=30) and a sample of convenience. Additionally, investigators utilized a parent interview to gather verbal report of perceptions of barriers to care. Because children were often present in the same room as their parents when the interview was being conducted, however, this methodology may have resulted in parents' underreporting of negative perceptions of children's mental health or barriers to the mental health care system. The current study improved upon Starr et al.'s methodology by recruiting a larger sample and a sample drawn from a school-based population rather than a pediatrician and social service agency office. Further, the anonymous survey format utilized in the present study likely minimized any underreporting of negative perceptions of barriers to children's mental health care that may have occurred due to situational variables (e.g., doctor's office environment, presence of children who are listening to verbal responses).

Second, the current study specifically examined rural-nonrural differences in perceptions of accessibility, availability, acceptability, outcome, and barriers to mental health care for children. Third, it provided data for the actual availability of such services to examine the accuracy of parents' perceptions of availability. Is important to examine how the accuracy of perceived availability might influence service utilization, as baseline measures of perceived access may better predict mental health service utilization than

actual access (Rost et al., 2002). Finally, this study improved upon existing methodology by gathering measures of current service utilization and need for service (Rost et al., 2002).

The counties from which the rural samples were recruited have less than 1000 people per square mile and are part of the Appalachian region of rural Southeastern Ohio. Barriers to care may be particularly more pronounced in rural Appalachia compared to other rural areas due to a troubled sociopolitical and economic history. Such findings may serve to inform the development of interventions and systems of service delivery that reduce perceived stigma associated with receiving treatment as well as increase the acceptability of evidence-based treatments.

*Predictions*

*Perceived availability.* Parents' perceptions of availability were measured in three ways: (1) asking parents to freely list agency or provider names, (2) asking parents to check, from among 16 different entities, which agencies or types of provider are available in their community, and (3) asking parents how they would go about finding youth mental health services if they felt they needed a referral for their child. Based on literature that suggests that individuals in rural areas may be less aware of children's mental health services due to geographic and social isolation as compared to nonrural areas (Fox et al., 1999; Rost et al., 2002; Starr et al., 2002; Teleki & Buck-Gomez, 2002), it was predicted that nonrural parents would be significantly more aware of services in their area compared to rural parents, as evidenced by higher frequency of reported awareness of all types of services.

*Acceptability*. Cultural scholars suggest that rural parents will report more community- or kin-based services such as church, family and friends, or local support groups (The Rural and Appalachian Youth and Families Consortium, 1996) as avenues for support services. Further, there is empirical evidence to suggest that perceived anonymity when seeking mental health services is lower in rural areas as compared to nonrural areas (Rost et al., 1999). Based on the assertion that rural families may favor more community- or kin-based services over more traditional clinic-based services, it was predicted that the types of services that were viewed as acceptable would differ significantly for nonrural and rural parents. However, because this assertion stems from descriptive, rather than empirical studies, this prediction is considered to be exploratory.

*Barriers to care*. It was hypothesized that there will be significantly more barriers reported by rural parents compared to nonrural parents. There is copious data to support the hypothesis that fewer youth mental health services exist in rural areas as compared to nonrural areas, and that service utilization is lower in rural areas compared to nonrural areas (Rost et al., 2002; Starr et al., 2002; Stiffman et al., 2000; U. S. Department of Agriculture, 2000; U. S. Congress, 1990; U. S. Department of Health and Human Services, 2001). It was therefore predicted that rural parents would have higher scores on the *Barriers to Treatment Participation* (Kazdin et al., 1997) as compared to nonrural families. Additionally, based on literature that suggests that there may be sociocultural factors that present stronger barriers for families living in rural areas (Garcia & Weisz, 2002; Starr et al., 2002) and that families with Appalachian heritage have unique cultural values related to dealing with stress and health (Beaver, 1988; Duncan & Lamborghini, 1994; The Rural and Appalachian Youth and Families Consortium, 1996), it was

hypothesized that compared to nonrural parents, rural parents living in the Appalachian region of Southeastern Ohio would report significantly higher levels of concern for issues related to relationship within the process of receiving mental health treatment.

*Expectations of mental health treatments*. As stated above, it was predicted that rural parents would have significantly higher scores related to concerns about relationship with a mental health therapist or counselor. As previously discussed, many families living in Appalachia appear to have a strong history of reliance on community- or kin-based support during times of stress and health problems (Appalachian Regional Commission, 1994; Morrisey-Kane & Prinz, 1999). Further, descriptive studies have suggested that families with Appalachian heritage may see public mental health service utilization as an admittance of weakness or a failure of the extended family network to provide adequate support (Beaver, 1988; The Rural and Appalachian Youth and Families Consortium, 1996). Thus, it was anticipated that rural parents will perceive mental health treatment as less necessary and less effective than nonrural parents. However, given that low socioeconomic status presents a powerful barrier to care (Campbell et al., 2003; Costello, Keeler, & Angold, 2001; Flisher et al., 1997; Glied et al., 1997; Halpern, 1993; Lohmann, 1990) and that efforts were made to recruit parents of similar socioeconomic background for the current study, it was anticipated that there will be no significant differences between rural and nonrural parents regarding practical and process issues related to treatment (e.g., cost, scheduling, treatment homework, parent input into treatment goals).

# METHOD

## *Participants*

Parent participants were recruited from three school districts in two Appalachian counties (Athens City School District and Federal-Hocking School District in Athens County; Logan-Hocking School District in Hocking County) and one school district in an urban county (Columbus Public School District in Franklin County) in Ohio. The final sample of 232 parents included 62 (26.7%) parents from two urban elementary schools; 44 (19.0%) parents from two rural city elementary schools (Athens City School District); and 126 (54.3%) parents from six different elementary schools in two rural county school districts (Logan-Hocking and Federal-Hocking School Districts). This reflects a 7.21% response rate.

One-way analysis of variance (ANOVA) indicated there were significant differences in the socioeconomic status (Hollingshead, 1975) of participants based on their child's school of origin, $F$ (9, 222) = 3.21, $p < .01$. Further, the pattern across schools suggested that three clusters emerged based on community types described above. Specifically, one-way ANOVA results indicated that the average SES of respondents from the rural county schools ($M$ = 30.86; $SD$ = 13.81) was significantly lower ($F$ (2, 229) = 9.97, $p < .001$) than that of rural city schools ($M$ = 40.03; $SD$ = 13.25) and that of the urban schools ($M$ = 38.08, $SD$ = 14.24). Thus, respondents were grouped into the following community types for all subsequent analyses: "Urban" (2 schools from Columbus Public School District), "Rural City" (2 schools from Athens City School District), and "Rural County" (6 schools from Athens County, Federal Hocking Local Schools and Logan-Hocking School Districts).

Demographic characteristics by community type are summarized in Table 1. Chi-square and one-way analysis of variance tests were conducted on all demographic variables to assess for significant differences among different schools. Variables for which there was a significant difference ($p < .05$) between geographic groups are denoted by an asterisk (*) in Table 1. The socioeconomic profile of each community type is listed in Table 2.

As anticipated, participants varied significantly on Appalachian heritage, both in second-generation (e.g., participants' parents lived in an Appalachian county), $\chi^2$ (2) = 51.24, $p< .001$ and third-generation (e.g., participants' grandparents lived in an Appalachian county) heritage, $\chi^2$ (2) = 39.00, $p < .001$. Rural County participants had a stronger second- and third-generation Appalachian heritage than either the Rural City or the Urban participants. Additionally, there was a significant difference between groups in terms of ethnicity, $\chi^2$ (12) = 71.37, $p < .001$. Specifically, there were more African American respondents in the Urban group compared to either the Rural City or Rural County group. Rural County parents had significantly lower levels of education than either Rural City or Urban parents, $\chi^2$ (12) = 27.09, $p < .01$; however, there was not a significant difference between Rural City parents' highest level of education and that of Urban parents. This is likely accounted for by the fact the two Rural City schools are located within 5 miles of Ohio University. Thus, children of Ohio University professors and administrators contribute heavily to the enrollment in these schools. Additionally, one of the two schools in the Urban sample is close to a major public university, and parents frequently indicated that they were researchers or otherwise tied to academic careers.

Table 1

Sample Demographic Characteristics by Community Type

| | | Urban | Rural City | Rural County | Total |
|---|---|---|---|---|---|
| Sex: | Male | 3 (4.8%) | 5 (11.4%) | 12 (9.5%) | 20 (8.6%) |
| | Female | 59 (95.2%) | 39 (88.6%) | 114 (90.5%) | 212 (91.4%) |
| Age (years) | *M* (*SD*) | 37.25 (7.3) | 36.65 (7.0) | 36.35 (7.9) | 36.65 (7.6) |
| *SES | *M*(SD) | 39.08 (14.24) | 40.03 (13.25) | 30.86 (13.81) | 34.53 (14.35) |
| *Ethnicity | Caucasian | 38 (61.3%) | 40 (90.9%) | 122 (96.8%) | 200 (86.2%) |
| | *African-American | 16 (25.8%) | 0 (0.0%) | 1 (0.8%) | 17 (7.3%) |
| | Asian | 5 (8.1%) | 0 (0.0%) | 0 (0.0%) | 5 (2.2%) |
| | Hispanic | 1 (1.6%) | 2 (4.5%) | 0 (0.0%) | 3 (1.3%) |
| Marital Status | Married | 41 (66.1%) | 38 (86.4%) | 98 (77.8%) | 177 (76.3%) |
| | Divorced/ Separated | 8 (12.9%) | 1 (2.3%) | 13 (10.3%) | 22 (9.5%) |
| | Single | 2 (3.2%) | 0 (0.0%) | 2 (1.6%) | 4 (1.7%) |
| | Living with Partner | 10 (16.1%) | 4 (9.1%) | 10 (7.9%) | 24 (10.3%) |
| Last year's Income | <$10,000 | 4 (6.5%) | 4 (9.1%) | 9 (7.1%) | 17 (7.3%) |
| | $10K-$20K | 8 (12.9%) | 1 (2.3%) | 26 (20.6%) | 35 (15.1%) |
| | $20K-$30K | 5 (8.1%) | 3 (6.8%) | 15 (11.9%) | 23 (9.9%) |
| | $30K-$40K | 15 (24.2%) | 6 (13.6%) | 18 (14.3%) | 39 (16.8%) |
| | $40K-$50K | 7 (11.3%) | 5 (11.4%) | 17 (13.5%) | 29 (12.5%) |
| | >$ 50,000 | 22 (35.5%) | 22 (50.0%) | 38 (30.2%) | 82 (35.3%) |

Table 1 continued

| | | Urban | Rural City | Rural County | Total |
|---|---|---|---|---|---|
| Kids in home | *M* (*SD*) | 2.16 (1.47) | 2.58 (1.22) | 2.19 (0.87) | 1.90 (0.50) |
| Adults in home | *M* (*SD*) | 1.90 (0.50) | 1.98 (0.27) | 2.05 (0.56) | 1.90 (0.50) |
| Relationship to child | Parent | 57 (91.9%) | 44 (100.0%) | 119 (94.4%) | 220 (94.8%) |
| | Grandparent | 3 (4.8%) | 0 (0.0%) | 1 (0.8%) | 4 (1.7%) |
| | Other | 1 (1.6%) | 0 (0.0%) | 4 (3.2%) | 5 (2.1%) |
| *Appalachian Parent | Yes | 3 (4.8%) | 24 (54.5%) | 73 (57.9%) | 100 (43.1%) |
| | No | 59 (95.2%) | 20 (45.5%) | 52 (41.3%) | 131 (56.5%) |
| *Appalachian Grandparent | Yes | 4 (6.5%) | 22 (50.0%) | 65 (51.6%) | 91 (39.2%) |
| | No | 58 (93.5%) | 22 (50.0%) | 59 (46.8%) | 139 (59.9%) |
| *Highest Level of Education | <12th grade | 3 (4.8%) | 0(0.0%) | 7 (5.6%) | 10(4.3%) |
| | *HS Degree | 7 (11.3%) | 9 (20.5%) | 42 (33.3%) | 58 (25.0%) |
| | Some College | 17 (27.4%) | 8 (18.2%) | 34 (27.0%) | 59 (25.4%) |
| | Finished College | 22 (35.5%) | 14 (31.8%) | 30 (23.8%) | 66(28.4%) |
| | Graduate or beyond | 12 (19.4%) | 13 (29.5%) | 13 (10.3%) | 38(16.3%) |
| Child in Special Ed | Yes | 6 (9.7%) | 5 (11.4%) | 13 (10.3%) | 24 (10.3%) |
| | No | 56 (90.3%) | 39 (88.6%) | 111 (88.1%) | 206 (88.8%) |
| Children's MH Svcs | Yes | 3 (4.8%) | 5 (11.4%) | 19 (15.1%) | 27 (11.6%) |
| | No | 59 (95.2%) | 39 (88.6%) | 106 (84.1%) | 204 (87.9%) |

*Note: Discrepant total numbers per variable reflect missing data. Variables for which there was a significant difference ($p < .05$) between geographic groups are denoted by an asterisk (*). "SES" = Socioeconomic status (Hollingshead, 1975)

Table 2

Socioeconomic Status Strata (Hollingshead, 1975) of Respondents by Community Type

| Category | Urban | Rural City | Rural County | Total |
|---|---|---|---|---|
| Major business and professional | 10 (16.1%) | 9 (7.1%) | 7 (15.9%) | 26 (11.2%) |
| Medium business, minor professional, technical | 18 (29.0%) | 27 (21.4%) | 19 (43.2%) | 64 (27.6%) |
| Skilled craftsmen, clerical, sales workers | 19 (30.6%) | 27 (21.4%) | 8 (18.2%) | 54 (23.3%) |
| Machine operators, semiskilled workers | 9 (14.5%) | 40 (31.7%) | 6 (13.6%) | 55 (23.7%) |
| Unskilled laborers, menial service workers | 6 (9.7%) | 23 (18.3%) | 4 (9.1%) | 33 (14.2%) |

*Measures*

*Actual availability.* In order to generate an estimate of actual availability of mental health services, the primary investigator gathered information from the Ohio Department of Mental Health, the Ohio Psychological Association, the 317 Board (serves both Athens and Hocking counties), and city phone books. The availability of different *types* of agencies or entities was tabulated across the different regions (e.g., Athens city and surrounding locales, Logan city and surrounding locales, and the Columbus metropolitan area).

*Demographic questionnaire.* Parents completed a survey that included several questions that assessed characteristics of themselves and their family, including employment, number of persons living inside the home, whether or not their child has received a special education identification in school and whether or not their child has received counseling or mental health services (see Appendix A). It should be noted that the phrase "counseling or mental health services" was chosen to denote any kind of psychological or mental health support services. The decision to use this phrase was based on clinical experience with families in the rural Appalachian area who most commonly used "counseling" to refer to psychological treatments.

*Free response availability.* The parent survey also assessed parents' awareness of the availability of mental health or counseling services in their local community. This awareness was assessed in two different ways. First, parents were asked to list all the agencies or entities of which they were aware that could address the mental health needs of an elementary-aged child. Following lexical examination of free responses, agencies were coded with the following types: "No response," "I don't know," "None in my area,"

"Community mental health agency," "Children's Services," "Pediatrician/Medical provider," "School entity" (e.g., guidance counselor, school psychologist, school), "Private psychologist/Psychiatrist," "Faith-based services," "Hospital," "Health department or other government agency," "University-based psychology services," "Principal/Teachers," and "Other" (e.g., "peer mentoring"). The number of services freely listed by each participant was tallied. Subsequent analyses examined listed agency types in two ways. First, the type of agency listed first in each participant's free response was examined for differences across community type. Second, each participant's preferred agency was examined as described below in the *Acceptability* measure section.

*Checklist availability*. On the second page of the parent survey, parents were provided with a list of 14 mental and general health providers and support services, including private psychologists, pediatricians, and clergy, with an additional option for "Other" services (no parents utilized this option to endorse another service provider). Parents were asked to mark all services or entities that exist in their respective communities. The number of agencies or entities endorsed by each participant was tallied and used in subsequent analyses as a checklist indicator of awareness of available mental health services.

*Acceptability*. For each agency that parents listed in the free response availability section of the survey, they were asked to rate their perception of the acceptability of that agency or entity. Parents rated the agencies they listed on a four-point scale, from "1—Not at all acceptable" to "4—Very acceptable." Within each community group, average acceptability ratings were computed for each type of agency. Parents were also asked to circle which agency, from among their list, they considered to be their "TOP CHOICE

(where you would most likely take your child if he/she needed mental health services)." Subsequent analyses examined community type differences in the preferred type of agency.

*Barriers and expectations.* The second portion of the parent survey assessed the expectations parents have about mental health services for elementary-aged children, as well as situations or beliefs that might bar parents from obtaining treatment for a child in need of psychological services. This portion of the survey comprised modified versions of Kazdin's (Kazdin et al., 1991; Kazdin et al., 1997) parent version of the *Barriers to Treatment Participation Scale* (BTPS) and Richardson's (2001) *Expectations of Mental Health Care* (EMHC) survey. Kazdin's BTPS is a 58-item questionnaire that presents a number of situations that may have contributed to treatment dropout and other indicators of participation in outpatient psychological treatment. For 44 of these items, parents respond to a five-point rating scale that allows them to indicate the degree to which the presented situation stem may have interfered with their treatment participation. Factor analyses of these 44 items using varimax rotation resulted in four separate subscales: "Competing Activities/Life Stressors" (n = 20), "Relevance of Treatment" (n = 8), "Relationship with Therapist" (n = 6), and "Treatment Issues (Logistics)" (n = 10). Because most of the items loaded on the "Competing Activities/Life Stressors" subscale, Kazdin and colleagues using a "total barriers score" that consists of all 44 items rather than analyzing subscale scores. This total score yielded high internal consistency ratings, with both the Spearman-Brown coefficient and the coefficient alpha = .86 (Kazdin et al., 1997). The final 14 items comprise the "Critical Events" subscale of the BTPS. Parents respond with "Yes" or "No" to indicate whether the listed event occurred in their family

during the course of treatment. Kazdin's measure was developed from a model that states that degree of perceived barriers to care is more centrally related to treatment participation than are one-time stressors such as those included on the "Critical Events" subscale. Furthermore, there is evidence to suggest that the total barriers score on the BTPS, as opposed to the presence or absence of one-time stressors, has significant validity for predicting the amount of time a family will likely stay in mental health treatment (Kazdin et al., 1997). Specifically, Kazdin found that the total barriers score accounts for significant additional variance in treatment dropout after controlling for family, parent, and child characteristics such as SES, maternal age, parental stress, and child history of antisocial behavior [$F$ (1, 233) = 28.50, $p < .001$, $\Delta R^2 = .10$].

The BTPS was modified for the purposes of this study in two ways. First, the prompt statement that parents read prior to rating items was changed from a retrospective task to a prospective one. On the BTPS, parents read the following prompt: "Please rate the extent to which various problems applied to you and were related to coming to treatment." In the revised measure, parents read the following statement: "Imagine that you want to get mental health or counseling services for your child. Below is a list of beliefs that some parents have about counseling or mental health treatment for their child. For each item, please place and "X" in the box that indicates HOW MUCH YOU AGREE WITH the listed statement." Additionally, the tense of the prompt stems was changed such that parents were encouraged to imagine that they had the listed belief about treatment participation. They then were asked to rate the degree to which that belief would get in the way of obtaining treatment for their child. This is in contrast to Kazdin's original retrospective measure, which asked parents to endorse the extent to

which the listed "problems" applied to their family and were related to treatment participation. Thus, Kazdin's "problem" statements were changed to present tense and were reworded for grammatical clarity. However, the root of the prompt remained intact. Permission was obtained from Dr. Kazdin to alter the content of the BTPS for this study. After modification, the measure retained good internal consistency with the exception of the Critical Events factor. Specifically, the following Chronbach alpha coefficients were calculated: Total Barriers Score Chronbach alpha = 0.956, Critical Events Score Chronbach alpha = 0.429, Competing Activities/Life Events Chronbach alpha = 0.910, Relevance of Treatment Chronbach alpha = 0.824, Relationship with Therapist Chronbach alpha = 0.841, and Treatment Issues Chronbach alpha = 0.833.

The *Expectations of Mental Health Care* (EMHC) survey (Richardson, 2001) is a 37-item survey that examines parents' expectations of mental health services in four domains: "Social and Cultural Factors" (n = 9), "Provider/Client Relationship" (n = 6), "Accessibility" (n = 7), and "Treatment" (n = 7). Parents are asked to rate on a four-point rating scale, ranging from 1 ("Not at all") to 4 ("A Lot"), the degree to which they expect the stem situation to bar them from seeking treatment for their child. Content validity for the scale was established by a panel review and revision by experts in the fields of psychology, health behavior, nursing, and research design and analyses. Initial examination of this recently developed measure indicates that the scale has a moderate degree of internal consistency for the overall score of the instrument (Cronbach alpha = .76; Richardson, 2001). The EMHC stems were altered to become future-tense belief statements in the same manner as stated above for the BTPS stems. Following modification, the EMHC factors and Total Expectations score retained good internal

consistency with the exception of the Treatment Expectations factor score. Specifically, the following Chronbach alpha coefficients were calculated: Total Expectations Score Chronbach alpha = 0.902, Social and Cultural Expectations Chronbach alpha = 0.749, Provider/Client Relationship Expectations Chronbach alpha = 0.911, Accessibility Expectations Chronbach alpha = 0.712, and Treatment Expectations Chronbach alpha = 0.591.

*Procedure*

*Recruitment.* To recruit rural participants, the principal investigator attempted to contact district superintendents in six rural school districts to obtain permission to recruit participants. However, only three superintendents responded and allowed recruitment to proceed in their respective elementary schools. Within these three districts (Athens City, Federal-Hocking, and Logan-Hocking), eight out of 15 (53.0%) elementary school principals permitted participant recruitment in their schools.

Urban participants were recruited through one school district that housed 92 elementary schools. The principal investigator collaborated with the district's acting Director of Evaluation Services to obtain a list of schools that had rates of free and reduced lunches that were similar to participating rural schools. (Information was obtained from the Ohio Department of Education). Principal permission to recruit parent participants was obtained from two of the nine urban schools (11%) contacted. Across all schools, principals frequently cited participation in other research studies or concern about overwhelming parents as primary reasons that they declined participation in the project. In terms of free and reduced lunch rates, the schools (both rural and urban) that did not participate in this study (n = 17) were not significantly different from those that

did participate (n = 10), $\chi^2$ (17) = 15.97, ns. Additionally, there was no difference in response rates across schools, $F$ (2, 7) = 1.26, ns.

Recruitment ceased after efforts to obtain permission for recruitment from urban and rural schools were sufficiently exhausted (i.e., specifically, after three unreturned phone calls and no response to two email requests for participation per school).

*Distribution of parent surveys.* Parent participants were recruited through mass distribution of packets to children in the ten participating elementary schools. Parent packets were delivered to each school by research assistants following confirmation phone calls placed to school principals by the principal investigator. Packets were collated and labeled according to each classroom's enrollment, thus minimizing the staff time required for distribution of packets to each child. Packets were commonly included in a weekly communications folders (e.g., "Friday Folder"), a method by which many schools maintain consistent contact with parents. Although anonymous, packets were identified by a code that identified the originating school. For each packet received, the originating school received one dollar, to be used as school administrators saw fit.

Each packet contained a flyer inviting parents to participate (see Appendix B), which informed parents about the purpose of the study as well as the potential risks and benefit of participation. Specifically, because no information that directly tied a returned packet to its respondent, there was no personal risk to participation. Furthermore, the invitation flyer informed parents that one dollar would be donated to their child's school when their packet is received. It was anticipated that teachers and principals might be motivated by this incentive to encourage parent participation so that schools could

directly benefit, i.e., pooling money to support the purchase of new equipment, funding the activities of the parent-teacher organization, etc. Consent was implied by the parents' return of the assessment packet via postage-paid return envelope.

*Coding parent free-responses*. As stated above, parents' free responses of perceived available children's mental health services were coded according to type of agency or entity listed. These data were then tabulated to obtain the number of each type of agency listed by each geographic region. Subsequent analyses examined what types of agencies were generally listed first by each type of community and which types of agencies were listed in the first three free responses by group.

*Research Questions and Data Analytic Approach*

Statistical analyses first examined the demographic data provided by parents. The original intent of this study was to examine group differences between rural and nonrural communities; however, as noted above, socioeconomic status was significantly different across groups of schools. Groups were better defined by the socioeconomic status of participants in (1) the rural county schools, (2) the rural city schools, and (3) the urban schools. Thus, participants were grouped by community type (i.e., Rural County, Rural City, and Urban) and subsequent data analyses examined group differences on the dependent variables of interest. As previously noted, families from the two rural city schools are often connected directly with the university, with many parents specifically describing the occupation of themselves or their spouses as university professors or researchers. Thus, it is asserted that while the two Rural City schools are indeed located in a rural community, the socioeconomic status of families whose children are enrolled in these schools suggests a unique subgroup of rural community.

*Parental perceptions of availability and acceptability.* First, the study aimed to investigate parents' perceptions of the availability of mental health services in their area by way of open-ended and dichotomous responses. This included both the types of agencies or providers of which they are aware and whether or not they perceive these services as acceptable to access if their own child were in need of counseling or mental health services. Specifically, the number and types of services that parents say they would use if necessary, as well as their acceptability ratings for each of these services, were recorded.

Responses from the open-ended question regarding what types of services or agencies are available in the urban and rural communities were analyzed by lexical analyses to examine the following research question: *Are there qualitative differences between rural Appalachian and urban parents' perceptions of what are considered "counseling or mental health services"*? Specifically, these content analyses examined (a) the *number* of mental health services that were listed by parents in the two rural communities and by those in urban areas to generate a measure of perceived availability, and (b) the *top three* mental health services that were ranked by parents in the two rural communities and by those in nonrural area to generate a measure of perceived acceptability of those services.

Additionally, analysis of the types of agencies *first* listed on the open-ended question regarding service availability were analyzed through analysis of variance procedures to examine the following research question: *Is there a difference between rural and urban parents in what types of agencies or providers individuals primarily think of as being available in their area*?

*Barriers to and expectations of mental health care for children.* The final goal of the current study was to examine parental perceptions of barriers to receiving the care of the available services. These barriers included the community, social, and individual characteristics that may operate on a parent's decision to engage his or her child in mental health services. Based on the domains assessed by the parent questionnaire, there are a number of research questions to be answered by analysis of the barriers data: (a) *Are there rural-nonrural differences in parent-reported perceived barriers to children's mental health care (i.e., location, cost, scheduling difficulties, transportation, illness, etc.)*? (b) *Are there rural-nonrural differences in the strength of rating of availability of services as a barrier to children's mental health care?* (c) *Are there rural-nonrural differences in parents' expectations of treatment, including perceptions of relationship with the therapist, process of treatment, etc.*? (d) *Are there rural-nonrural differences in how effective parents think mental health services are in resolving psychological problems demonstrated by elementary-aged children*? (e) *Are there rural-nonrural differences in the barriers that are rated the strongest by parents*? and (f) *Is there a significant difference between the top barriers reported by rural Appalachian parents and those reported by urban parents?* For each of the above questions, analyses of variance examined the differences between group means. Additionally, multiple subgroups were available for secondary analysis based on responses to the demographic questions asking whether or not the responding parent's child has ever received mental health services and if not, if suggestions have ever been made that the child would benefit from mental health services, whether or not the responding parent has ever received

mental health services, and socioeconomic status. Thus, Bonferroni corrections were made to the analyses to control for Type II error.

# RESULTS

## *Actual Availability*

Information regarding available children's mental health providers was gathered from the websites of the Ohio Department of Mental Health, the Ohio Psychological Association, the 317 Board (serving both Athens and Hocking counties), and city phone books. Searches by city (Athens, Logan, Amesville, Coolville, and Columbus) and county resulted in very discrepant findings across cities and surrounding locales. For example, the counties comprising the Rural City and Rural County geographic areas are not yet listed on the Ohio Department of Mental Health. Further, searches on the Ohio Psychological Association's Consumer Referral service resulted in zero local providers for the Athens, Logan, Amesville, and Coolville areas. Information provided by the 317 Board and local phone books provided the greatest number of resources for children's mental health for the areas comprising the rural groups.

This study did not focus on the actual *number* of available treatment centers, agencies, and providers, but rather on availability of a number of different *types* of agencies or entities. It was found that all types of mental health services and agencies that provide auxiliary health care (e.g., county health departments) were available in all three community types. However, the resources in the rural counties appeared to be less abundant. For example, the Urban county had significantly higher numbers of all available sources of mental health than did the rural counties. Further, they were often more accessible. For example, to reach a university-based psychology clinic, some of the rural parents would need to travel 30 to 40 miles. This was in contrast to the urban university-based psychology clinics, which are within 10 to 15 miles of both of the urban

schools surveyed. Additionally, according to Ohio Department of Mental Health online resources, there were 21 private-practice child and adolescent psychologists listed in the urban area near the two urban schools surveyed. In contrast, there were *no* private-practice psychologists listed by the same online resource in the areas surrounding the rural schools surveyed. Further, there were 19 community-based mental health agencies in the urban area, in contrast to eight community-based mental health agencies in the rural counties surveyed.

*Perceived Availability*

*Free-response.* Parents were asked to respond to an open-ended question about availability, in which they listed a maximum of seven different agencies or entities from which they would consider seeking mental health treatment for their child if necessary. Interestingly, most parents did not list many agencies. Indeed, 85% of the full sample listed three or fewer agencies. Additionally, nearly 28% of the sample did not list any agency or entity on free response. The number of agencies freely listed was not significantly different among groups, although parents from the Rural City group tended to list the highest number of agencies, $\chi^2$ (14) = 21.54, *ns*. However, there was a significant association across groups in what type of agency was listed first, $\chi^2$ (22) = 61.24, $p < .001$. First response data are summarized in Table 3.

Across those respondents who actually listed an agency (e.g., those who listed a response other than "I Don't Know," "None in My Community," or no listing at all), 46.3% listed "Community Mental Health Center" first in their free-responses. The next most common type of agency listed first in free-response was "School Entity," comprising 21.5% of the total listings.

Table 3

Agencies Listed First in Free-Response Perceived Availability by Community Type

| | Urban % within type (*N*) | Rural City % within type (*N*) | Rural County % within type (*N*) | Total (*N*) |
|---|---|---|---|---|
| *CMHC | 10.1%(7)* | 18.8%(13) | 71.0%(49)* | 69 |
| Children's Services | 37.5%(3) | 50.0%(4) | 12.5%(1) | 8 |
| Pediatrician | 57.1%(4) | 14.3%(1) | 28.6%(2) | 7 |
| School Entity | 25.0%(8) | 25.0%(8) | 50.0%(16) | 32 |
| Private Psychologist | 12.5%(1) | 37.5%(3) | 50.0%(4) | 8 |
| Faith-based Services | 25.0%(2) | 25.0%(2) | 50.0%(4) | 8 |
| *Hospital | 87.5%(7)* | 12.5%(1) | 0* | 8 |
| Health Department | 33.3%(2) | 0 | 66.7%(4) | 6 |
| University-based Psychology Clinic | 0 | 100%(3)* | 0 | 3 |
| Teachers/Principal | 0 | 0 | 0 | 0 |
| Other ("peer mentoring") | 0 | 0 | 0 | 0 |
| "I Don't Know" | 37.5%(6) | 6.3%(1) | 56.3%(9) | 16 |
| "None in My Community" | 0 | 0 | 100%(3) | 3 |
| *No response* | 34.4%(22) | 12.5%(8) | 53.1%(34) | 64 |
| TOTAL | 62 | 44 | 126 | 232 |

Note: "CMHC" = Community Mental Health Center, "Health Department" also includes other non-mental health-focused government agencies

A Bonferroni-Holm posttest procedure was employed to establish a critical significance value for posttests to examine significant effects within each type of identified agency. This procedure resulted in a critical *p*-value of 0.0366, which corresponds to a z-score of $\pm$1.79. Examination of the residual values between expected and observed frequencies revealed a number of significant findings related to how frequently members of specific geographic groups listed particular types of mental health agencies or entities. With regard to those who endorsed "Community Mental Health Center" (CMHC) as their first response, Urban participants were significantly underrepresented (10.1% of all CMHC responses) and Rural County participants were significantly overrepresented (71.0% of all CMHC responses) compared to expected frequencies. Further, Urban respondents appeared to view medical providers as their primary entity to which they would turn for children's mental health services. Urban respondents authored a significantly greater proportion (87.5%) of the "Hospital" listings compared to expected frequencies. This is contrasted against the responses of Rural County respondents, as none of these participants listed "Hospital" first in their free response. Finally, Rural City respondents' first agency listings were significantly overrepresented in the "University-based Psychology Services" category of agency compared to expected frequencies. Indeed, none of these listings were authored by Rural County or Urban participants.

Of interest, nine Rural County respondents, six Urban respondents, and one Rural City respondent stated, "I don't know" on their free-response items. Further, another three Rural County respondents indicated that there were "None in my community" with regard to mental health agencies. Although these numbers are relatively small, it reveals

that almost ten percent of the Rural County parents perceive no accessible support for their children if they were to need mental health services.

It was hypothesized that there would be significant differences in the top three agencies freely listed across community types. As indicated above, there were significant differences in the first agency. There were also significant differences in the types of agencies listed second, $\chi^2$ (24) = 50.03, $p$ = .001. Posttests with Bonferroni-Holm corrections examined types of agencies for which there were significantly disproportionate response frequencies across geographic groups. Second-agency listings are summarized across groups in Table 4, with significant effects denoted with an asterisk (*). Eighty-seven respondents did not list anything for the second item. Of the valid second listings, there were significant findings for the following categories of mental health agency or entity: "Private Psychologist," "Hospital," "Health Department," and "University-based Psychology Services." Compared to expected frequencies, significantly more Rural City respondents listed specialty mental health services. Specifically, they listed private or university-based psychologists significantly more frequently than was expected. In contrast, Urban parents were overrepresented the listings of a "Hospital" entity compared to expected frequencies, while Rural County parents were overrepresented in the listings of "Health Department" or other non-mental health focused agency.

Finally, there were also significant differences among community types in what types of agencies were listed third in free-response availability items, $\chi^2$ (26) = 42.89, $p$ = .02. Third-agency listings are summarized across groups in Table 5, with significant effects denoted with an asterisk (*). Of the valid third listings, there were significant

Table 4

Agencies Listed Second in Free-Response Perceived Availability by Community Type

| | Urban % within type (*N*) | Rural City % within type(*N*) | Rural County % within type(*N*) | Total (*N*) |
|---|---|---|---|---|
| CMHC | 9.7%(6) | 24.3%(9) | 16.3%(16) | 31 |
| Children's Services | 0 | 50.0%(2) | 50.0%(2) | 4 |
| Pediatrician | 42.9%(3) | 0 | 57.1%(4) | 7 |
| School Entity | 17.6%(3) | 29.4%(5) | 52.9%(9) | 17 |
| *Private Psychologist | 19.0%(4) | 38.1%(8)* | 42.9%(9) | 21 |
| Faith-based Services | 40.0%(2) | 0 | 60.0%(3) | 5 |
| *Hospital | 71.4%(5)* | 0 | 28.6%(2) | 7 |
| *Health Department | 0 | 0 | 100%(7)* | 7 |
| *University-based Psychology Clinic | 25.0%(1) | 75.0%(3)* | 0 | 4 |
| Teachers/Principal | 0 | 33.3%(1) | 66.7%(2) | 3 |
| Other ("peer mentoring") | 50.0%(1) | 0 | 50.0%(1) | 2 |
| "I Don't Know" | 100.0%(2) | 0 | 0 | 2 |
| "None in My Community" | 0 | 0 | 0 | 0 |
| *No response* | 56.5%(35) | 24.3%(9) | 43.9%(43) | 87 |
| TOTAL | 62 | 37 | 98 | 197 |

Note: "CMHC" = Community Mental Health Center, "Health Department" also includes other non-mental health-focused government agencies

Table 5

Agencies Listed Third in Free-Response Perceived Availability by Community Type

| | Urban % within type (*N*) | Rural City % within type (*N*) | Rural County % within type (*N*) | Total (*N*) |
|---|---|---|---|---|
| *CMHC | 33.3%(4) | 50.0%(6)* | 16.7%(2)* | 12 |
| Children's Services | 42.9%(3) | 14.3%(1) | 42.9%(3) | 7 |
| Pediatrician | 0 | 0 | 100%(5) | 5 |
| *School Entity | 10.0%(1) | 50.0%(5)* | 40.0%(4) | 10 |
| Private Psychologist | 29.4%(5) | 35.3%(6) | 35.3%(6) | 17 |
| Faith-based Services | 33.3%(2) | 0 | 66.7%(4) | 6 |
| Hospital | 0 | 0 | 100%(1) | 1 |
| Health Department | 0 | 20.0%(1) | 80.0%(4) | 5 |
| University-based Psychology Clinic | 0 | 40.0%(2) | 60.0%(3) | 5 |
| Teachers/Principal | 0 | 0 | 100%(1) | 1 |
| Other ("peer mentoring") | 0 | 0 | 100%(1) | 1 |
| "I Don't Know" | 100%(1) | 0 | 0 | 1 |
| "None in My Community" | 0 | 100%(1)* | 0 | 1 |
| *No response* | 28.8%(46) | 13.8%(22) | 57.5%(92) | 160 |
| TOTAL | 62 | 44 | 126 | 232 |

Note: "CMHC" = Community Mental Health Center, "Health Department" also includes other non-mental health-focused government agencies

differences in frequencies of "Community Mental Health Center" and "School entity" listings across community types. Specifically, compared to expected frequencies, significantly more Rural City participants and significantly fewer Rural County participants listed a community mental health center as their third response. Finally, Rural City parents were overrepresented among the third-item listings of "School Entity."

*Checklist availability.* The second instance in which parents were asked to report their perceptions of available children's mental health services occurred on the second page of the questionnaire. Here, they were asked to check any of the listed agencies that they perceive to be available in their community. The number of agencies checked ranged from 0 to 15 (all listed agencies checked). Twenty-eight (12.1%) parents did not check any agency. There was no significant difference among community types in the number of agencies checked, $\chi^2$ (32) = 38.82, *ns*. In addition, there was no significant community type difference in the difference between the number of agencies checked on dichotomous response and the number of agencies listed on free-response, $\chi^2$ (36) = 34.71, *ns*.

*Referral sources*. Parents were also asked to list how they would go about finding children's mental health services if needed. As with the free-response agency listings reported above, this item was coded by source following lexical examination of parents' responses. There was a significant difference in how parents from different communities would go about finding children's mental health services, $\chi^2$ (26) = 53.31, $p$ = .001. Responses are summarized in Table 6. Posttest comparisons examined significant differences between observed frequency of reports and expected values, with a Bonferroni-Holm correction for multiple comparisons. Of the 184 valid responses on this

Table 6

Parents' Preferred Referral Sources by Community Type

| | Urban % within type(*N*) | Rural City % within type(*N*) | Rural County % within type(*N*) | Total (*N*) |
|---|---|---|---|---|
| Doctor/Pediatrician | 27.9%(17) | 16.4%(10) | 55.7%(34) | 61 |
| *School Agent | 4.8%(1)* | 28.6%(6) | 66.7%(14) | 21 |
| Insurance/Employee Benefits | 42.9%(3) | 0 | 57.1%(4) | 7 |
| Government Agency | 18.2%(2) | 36.4%(4) | 45.5%(5) | 11 |
| CMHC | 0 | 20.0%(1) | 80.0%(4) | 5 |
| Colleagues/Coworkers | 50.0%(3) | 16.7%(1) | 33.3%(2) | 6 |
| Personal Experience | 25.0%(1) | 50.0%(2) | 25.0%(1) | 4 |
| *Friends | 0 | 100%(4)* | 0 | 4 |
| *Phone book/ "Calling around" | 1 | 50.0%(4)* | 37.5%(3) | 8 |
| Own Research | 50.0%(3) | 16.7%(1) | 2 | 6 |
| Church | 66.7%(2) | 0 | 33.3%(1) | 3 |
| "I Don't Know" | 25.0%(1) | 0 | 75.0%(3) | 4 |
| *Multiple sources | 40.9%(18)* | 9.1%(4) | 50.0%(22) | 44 |
| *No response* | 22.2%(10) | 11.1%(5) | 66.7%(30) | 45 |
| TOTAL | 62 | 44 | 126 | 232 |

Note: "CMHC" = Community Mental Health Center, "Health Department" also includes other non-mental health-focused government agencies

item, the most commonly listed referral source ($N = 61$) was a pediatrician or other doctor. However, there was not a significant difference in the frequency with which participants in separate community types reported this type of referral source ($p_{\text{corrected}} > .037$). The second most commonly reported referral source was a "School Agent" ($N = 21$). Urban participants were significantly underrepresented among those who endorsed this type of referral source. Specifically, only 4.8% of all "School Agents" responses originated from the Urban group, compared 28.6% from the Rural City group and 66.7% from the Rural County group. Further, Rural City participants were overrepresented compared to expected frequencies with respect to "Phonebook/Calling Around" and "Friends," which suggests that this group might generally be more proactive about seeking services compared to either the Rural County or Urban parents.

Interestingly, 44 parents listed multiple sources. Analysis of the first of each of these 44 listings revealed significant group associations, $\chi^2$ (16) = 31.67, $p = .011$. Of these 44 listings, "Doctor/Pediatrician" ($N = 15$) and "School Agent" ($N = 12$) were the most common. However, post tests suggest that there were no significant differences in the frequencies of response across the three community types on either of these referral types. Indeed, posttest results suggest that it was the overrepresentation of Rural City participants in the "Own Experience" category that contributed to the omnibus effect. However, this should be interpreted with caution, as only one participant endorsed "Own Experience." There were no significant group associations between community type and referral source on the second of the multiple-source reports.

*Acceptability.* Each time parents listed a particular agency or entity from which they would consider seeking mental health treatment for their child if necessary, they

were also asked to rate the acceptability of that agency on a scale from "1—Not at all acceptable" to "4—Very acceptable." It was hypothesized that the first listed agency might be related to respondents' most acceptable agency. Unfortunately, so few parents provided ratings that the acceptability data are not interpretable; however, trends presented in Appendix E.

*Barriers to Children's Mental Health Care*

Parents' perceptions of barriers to children's mental health care were examined by multivariate analysis of variance (MANOVA) of the modified *Barriers to Treatment Participation Scale* (Kazdin et al., 1997) factors scores. Community type was entered into the analysis as a fixed factor, with all five of the BTPS factor scores listed as dependent variables. Results of this analysis revealed no significant differences across community type for the five factor scores, $F$ (10, 450) = 1.73, ns. It is unlikely that this analysis was impacted by low power, as power was observed at 82.1%. With a larger sample size that included more equal cell sizes, however, it is possible that the omnibus multivariate result would be significant, as anecdotal examination of between-subjects effects suggested significant community type differences on Critical Events and Relationship with Therapist.

*Secondary analyses.* Secondary analyses examined various additional effects related to the BTPS factor and total scores. First, an analysis of variance (ANOVA) of the Total Barriers Score revealed no significant group differences. Second, those participants whose children who have had previous mental health services were found to have significantly higher ($M$ = 1.70; $SD$ = 1.24) Critical Events BTPS factors scores compared to those who have not ($M$ = 0.92; $SD$ = 1.19), $F$(1, 229) = 10.34, $p < .05$.

Third, multivariate analyses of variance indicated no significant differences for second- [$F$ (5, 221) = 1.03, ns] and third-generation [$F$ (5, 221) = 1.18, ns] Appalachian heritage on perceptions of barriers to children's mental health care. This analysis of the possible effects of Appalachian heritage on the BTPS factor scores were significantly impacted by low power (36.3% for second-generation heritage and 41.5% third-generation heritage). It is possible that with a larger sample of those parents who have strong Appalachian heritage, a significant heritage effect could have been detected. Finally, there were no differences in the strength of barrier to care presented by concern about relationship with therapist among groups of parents whose children did and did not have a special education status [$F$ (2, 209) = 2.00, ns] or among parents whose children had and had not previously received services [$F$ (1, 209) = 0.041, ns].

*Effectiveness and necessity.* It was hypothesized that there would be significant geographic group differences on parents' perceptions of the effectiveness and necessity of therapy. These hypotheses were tested with single-item analyses of variance with Bonferroni corrections for critical significance values. However, neither of these items bore significant geographic differences.

*Expectations of Children's Mental Health Care*

Parents' expectations of mental health care for children were examined by multivariate analysis of variance (MANOVA) of the *Expectations of Mental Health Care* survey (Richardson, 2001) factor scores. Community type was entered into the analysis as a fixed factor, with all four of the EMHC factor scores listed as dependent variables. MANOVA results indicated that there are significant group effects for community type [$F$ (8, 436) = 2.27, $p < .05$]. It appears that parents from the Rural County ($M$ = 6.85; $SD$

= 3.02) group feel that concerns related to "Provider/Client Relationship" pose a significantly greater barrier to children's mental health care than do parents from the Rural City ($M$ = 5.82; $SD$ = 2.56). There was no significant difference in the "Provider/Client Relationship" scores between Rural County and Urban parents, or between Urban parents and their Rural City counterparts. Item analyses further clarify the difference significant difference between Rural County and Rural City parents' concerns related to "Provider/Client Relationship." Results suggest that compared to their Rural City geographic neighbors, Rural County parents are significantly more concerned that counselors cannot be trusted (mean difference = 0.30, $p < .05$) and that counselors may not be friendly toward their child (mean difference = 0.22, $p < .05$). There was no significant difference in the "Provider/Client Relationship" scores between Rural County and Urban parents, or between Urban parents and their Rural City counterparts.

*Secondary analyses.* Secondary analyses examined various additional effects related to the EMHC factor and total scores. First, there were no significant differences between community types on the EMHC total score, ns. However, those respondents whose parents lived in an Appalachian county had significantly higher means ($M$ = 7.01, $SD$ = 3.21) on the Provider/Client Relationship factor than did those whose parents did not live in an Appalachian county ($M$ = 6.22, $SD$ = 2.77), $t$ (229) = 2.00, $p < .05$. There were no other significant differences among groups on the EMHC factor scores. Secondary analyses of variance indicated that there were no significant differences in expectations total or factor scores related to whether or not a participant's child had received previous mental health services.

# DISCUSSION

The current study investigated parental perceptions of the availability and acceptability of mental health services for elementary-aged children, as well as barriers to care including expectations of treatment process, relationship, and outcome. These perceptions were examined with a particular interest in whether or not there were differences in parents' views of children's mental health services based on community type. Parents of elementary school-aged children from two geographic areas in Ohio were surveyed: an urban area and two counties in Southeastern Ohio, an area characterized in part by strong Appalachian cultural history. Appalachian areas are marked by significant poverty, including high rates of unemployment and low-paying jobs. Additionally, Appalachian areas are often geographically isolated from more metropolitan areas. There is also evidence to suggest, however, that individuals of strong Appalachian heritage may experience more culturally bound isolation from institutions, including health agencies. Sociopolitical factors such as chronic economic distress and resultant lack of improvements to infrastructure and social agencies have also contributed to a general lack of trust of government institutions. Additionally, and perhaps most importantly to the goals of this study, these factors also appear to have led to Appalachians' strong reliance upon family and kinship communities for social as well as economic support.

Until now there has been little empirical investigation of factors that might differentiate Appalachian culture from that of other economically disadvantaged areas, including some urban areas, with regard to perceptions of mental health care. Parents are often perceived as the "gatekeepers" for children's mental health. Thus, it follows that

parents' perceptions of barriers to and expectations of children's mental health care would significantly impact children's ability to access and benefit from available mental health services. This study took an important first step by investigating these parental perceptions, with specific goals related to the examination of possible cultural differences related to Appalachian heritage.

*Availability*

Parents' perceptions of availability were measured by asking them to freely list agency or provider names, to check which agencies or providers are available in their area, and how they would go about finding a youth mental health services referral for their child. It was hypothesized that nonrural parents would be significantly more aware of available services, as evidenced by higher frequencies of free-responses, as well as significantly more agencies or types of provider checked from among a list of 16 different entities. Results indicated, however, that there was actually no difference between the number of agencies listed in free response by parents from the three different community types. Further, there was no significant difference between parents from the three different community types in the number of agencies endorsed on the checklist availability measure. Finally, there was no significant difference in the discrepancy between how many agencies parents listed on free-response and how many they endorsed on the checklist availability measure.

Indeed, it appears that even though children's mental health services are substantially less abundant in rural areas than they are in more metropolitan areas of Ohio, rural parents generally were aware of what was available to their families. This is interesting given that information available online from the Ohio Department of Mental

Health, which could be one place from which one might begin to seek information, indicated that there were very few treatment options available in the two rural counties surveyed. This is likely accounted for in part by the significant presence of a few community mental health centers available in the Appalachian region and, possibly, to a growing awareness of children's psychological difficulties. Additionally, it may well be a reflection of the oral tradition in Appalachian culture (Beaver, 1988; Keefe, 1988), which emphasizes the importance of verbal communication and word-of-mouth sharing of history. However, almost ten percent of the Rural County sample actually wrote "I don't know" or "None in my community" with respect to available children's mental health agencies. This reflects the importance of mental health providers continuing to expand community education and efforts to build trusting relationships with members of the Appalachian community.

Although no specific hypothesis was made about possible differences between what *types* of children's mental health providers parent might list first on the free-response perceived availability measure, exploratory analyses found interesting differences. Specifically, a significantly larger proportion of the community mental health center listings that appeared first on parents' lists originated from the Rural County sample, while a significantly larger proportion of the medically-focused first listings (e.g., "hospital," "pediatrician/medical provider") were written by Urban parents. This in part supports the hypothesis that Appalachian individuals might first turn to community-based services in times of need, as opposed to traveling to university- or medical-based treatment centers. It may also be related to the fact that in the rural areas surveyed in the present study, there are no psychology services in the area hospitals.

Despite data that speak to possible differences in how available parents from different communities see children's mental health services, there was insufficient data to examine possible differences in how acceptable parents view such services. This might have resulted from two different sampling issues. First, acceptability ratings were made on a four-point scale, which may have restricted range and thus limited the ability to detect a significant difference if one existed. More likely, however, a significant proportion of all parents in the sample did not list any acceptability ratings for the agencies they listed. Although this may reflect a particular stance toward children's mental health, it may be more accurately accounted for by unclear wording or placement of instructions for this task.

*Barriers to Care*

Because it is has been found that, compared to families in nonrural areas, individuals and families in rural areas experience significant barriers to care and have lower mental health service utilization, it was hypothesized that rural parents would have significantly higher barriers scores on the modified *Barriers to Treatment Participation* scale (Kazdin et al., 1997) compared to nonrural parents of similar economic background. However, multivariate and secondary analyses of this scale revealed no significant differences across community types in barriers scores. Indeed, the only finding from the BTPS measure suggested that those parents whose children previously have received mental health care had significantly higher Critical Events scores, suggesting that their families had experienced substantially more stress. It is likely that some of the analyses were impacted by low power (e.g., examination of possible effects of Appalachian heritage on perceptions of barriers to children's mental health care). Additionally, it may

be that families are impacted by other factors such as social or cultural expectations of the mental health care system in particular. These expectations were the focus of the final set of hypotheses.

*Expectations of Mental Health Care*

There is evidence to suggest that rural families, and rural Appalachian families in particular, may view mental health service utilization as a weakness or a view of one's family and community support system as being inadequate (Beaver, 1988; The Rural and Appalachian Youth and Families Consortium, 1996). Thus, it was predicted that rural parents would perceive mental health treatment as less necessary and less effective compared to nonrural parents. However, results of this study did not support this hypothesis. There were no significant differences between community types on parents' perceptions of either necessity or effectiveness. This analysis was likely quite impacted by restricted range of response, as this hypothesis was tested using single item analysis. It is also possible that there genuinely are no differences in parents' views on necessity and effectiveness, but that they experience other barriers or negative expectations that significantly decrease their utilization of the public children's mental health system.

The hypothesis that there would be no significant differences between rural and nonrural parents related to logistical and process issues associated with children's mental health was supported by this study. Indeed, these items were consistently rated as low barriers compared to other factors on both the BTPS and the EMHC questionnaires.

*Relationship with Therapist*

The most interesting finding of this study stemmed from the examination of parents' perceptions of barriers to care and expectations of mental health care. It was

hypothesized that there would be significant differences between rural and nonrural parents related to their expectations of relationship with a therapist. Although results from the barriers measure did not find significant differences in concern about relationship across communities, results from examination of parents' expectations of mental health treatment did reveal such differences. Specifically, relating to a therapist appears to be a significant concern of rural Appalachian parents. This effect remained even after examining the possible effects of socioeconomic status, whether or not children were in special education, or whether or not parents' children had previously received mental health services. This finding provides the first empirical evidence that rural Appalachian individuals may be deterred from seeking mental health services by their concern about how well they might relate to a psychotherapist. This potential barrier appears to focus specifically on parents concern about how much a counselor can be trusted and whether or not a counselor might be friendly toward children. In addition, these concerns appear to have a stronger effect for rural county parents as compared to those within the limits of the rural city, which further attests to population differences between the county and city regions of the rural sample.

Examination of parents' expectations of mental health services for children further attests to the strength of concern in Appalachian areas related to therapist-client relationship. Here, it was found that not only were there significant differences among community types, but also, there were significant effects of second-generation Appalachian heritage. In addition to parents from the Rural County sample, those parents whose parents lived in an Appalachian county had significantly greater concern about

therapist-client relationship than did those who lived elsewhere or were from a different geographic region.

These findings have important implications for the training and retention of future mental health providers who work in the Appalachian region. It is quite likely that concerns about relationship might be eased if providers are seen as members of the Appalachian community rather than commuters who drive in to do their job and then leave the region, taking with them their potential for contributions, both economic and social, from the community. Appalachian communities are often very tight-knit and enjoy a comfortable familiarity among families and neighbors. Given the ethics codes (American Psychological Association, 2002) of psychologists and other mental health providers, however, working to become part of the Appalachian community while also trying to maintain professional boundaries and avoid dual relationships becomes challenging. However, navigation of these challenges is essential for further relationship building to continue so that available children's mental health services may reach those in need.

*Transformation of Mental Health Service Delivery*

Parents' responses provided support to previous research citing the fragmentation of mental health services for children. On checklist availability measures, parents reported between 0 and 16 different sources of mental health services for children in their area, with an average of 7.53 services. The checklist, however, included entities such as principals/teachers, pediatricians, hospitals, and government agencies including child protective services that are not specialty mental health services. These data suggest that parents often think of non-specialty health care entities as some of the only acceptable

and/or available services in their area. As previously mentioned, fragmentation in the public mental health system often results in multiple pathways for entering the system and perhaps parental confusion about entering the system, getting appropriate care. It is possible that this factor deters parents from entering public children's mental health because of the "hassle" associated with such tasks. It is also possible that fragmentation leads to misunderstanding of mental health, which may in turn lead to decreased utilization. Further, in rural communities where cultural influences lead families to rely more on kin and community rather than public mental health institutions, parents may often prefer non-specialty providers of mental health services. All of these factors may have contributed to the variety of responses noted on the checklist availability measure used in this study.

As noted above, recent federal initiatives such as the President's New Freedom Commission on Mental Health have called for development of extended and more connected mental health services into underserved areas, including impoverished rural areas. Initially, subsequent extension efforts have focused in part on increasing federal and regional funding for recruitment, training, and retention efforts aimed at attracting specialty health providers to underserved areas. Further, these initiatives have called for the increased presence of interdisciplinary systems of comprehensive health care, including and highlighting mental health as an essential component of excellent overall health. Horwitz and Hoagwood (2002) discussed national policy reforms to address similar issues. Among these, revisions in the service delivery allowances for severely emotionally disturbed children in schools, welfare reform, and healthcare allowances (e.g., the Child Health Insurance Programs or CHIP) have had some of the most

significant impacts on children's mental health service systems over the last seven years. In addition, innovations in interdisciplinary service systems show great potential in meeting the federal initiatives by extending services to even the most remote areas and isolated youth. Results of the current study provide further support for the need to increase collaborative and interdisciplinary services, especially in two domains: schools and primary care.

*School-based mental health care.* It appears that significantly fewer Urban parents listed a school entity such as a school psychologist or guidance counselor as one of their top three available agencies. However, Rural City and Rural County parents frequently cited school personnel such as teachers or principals as individuals from whom they might seek guidance on finding appropriate children's mental health services. This suggests that mental health providers might gain substantial benefit from working to build harmonious and mutually beneficial relationships with educational institutions. Furthermore, it reflects a need to continue building school-based mental health services in rural Appalachian areas. These comments are especially salient given the current national efforts at extending models of care into schools. One of the most promising of these proposed extension models is that of school-based mental health, wherein professionals work directly in a school setting with children, teachers, and administrative officials (Armbruster, Gerstein, & Fallon, 1997; Atkins et al., 2003; Atkins et al., 1998; Flaherty & Osher, 2003; Flaherty & Weist, 1999; Flaherty, Weist, & Warner, 1996; Hoganbruen, Clauss-Ehlers, Nelson, & Faenza, 2003; Nabors, Weist, Reynolds, Tashman, & Jackson, 1999; Nabors, Weist, Tashman, & Myers, 1999; Weist et al., 2000). Within such programs, these professionals can offer community-based, financially and

geographically accessible, and non-stigmatizing assistance to the families of such children. Such school-based services are particularly promising in rural communities, where mental health agencies are often at least 30 miles away (Rost et al., 2002), insurance coverage for mental health services is minimal, transportation is often problematic due to lack of resources and infrastructure, fragmentation results in disjointed and possibly redundant activities, and stigma associated with help seeking is more pronounced than in other parts of the country. The movement has been fueled by community-university partnerships. Such partnerships help to bring evidence-based practice directly into the school setting and increase coordination of care for children and families. Furthermore, clinicians in these programs are in a unique position to serve in a mediation role between home and school for children and families who have a historically tense relationship with school personnel. Thus, home-school communication can be refocused to best support the child by having the school-based mental health clinician serve as a liaison for the child in the context of both the school and the home environments. Therefore, school-based mental health services are especially powerful interdisciplinary service systems because they allow services to be provided to the child in one of their most natural environments, the school, and can address multiple systems of a child's life in a neutral and accessible setting. "Meeting" the child where he or she is provides a unique and critical opportunity to quickly and powerfully address the mental health issues that might bar academic, emotional, and social success.

*Primary care settings.* One-third of the full sample listed a doctor or pediatrician as their front-line source for assistance with children's mental health needs, which highlights the importance of mental health participation in primary care settings

(Campbell et al., 2003; DeLeon et al., 2003; Hill et al., 2003; Staudt, 2003). This also validates the current national trend that suggests that mental health services are beginning to be housed within primary care settings and county health centers (Sears et al., 2003) in rural areas. Such integration of mental health with overall health care also works to reduce issues of stigma, access, affordability, and transportation for families seeking mental health care. Families seeking services in a primary care setting are able to access multiple systems of care during single visits. For example, these "one-stop" service settings might offer medical, dental, mental health, social work, and occupational therapy services in one centralized building. Interdisciplinary settings such as primary care agencies can therefore reduce some of the stigma that might exist in rural areas concerning seeking mental health services because these services are offered in the same setting as many other services that are more popularly accepted as appropriate forms of health treatment (Hill et al., 2003; Mulder et al., 2003; Sears et al., 2003).

It was hypothesized that factors such as treatment logistics and process would be differentially affected by geographic/cultural characteristics of groups. However, these factors were not significant. It should be noted that the univariate analyses of other BTPS factor scores (e.g., "Competing Activities/Life Stressors," "Relevance of Treatment," "Relationship with Therapist," "and "Treatment Issues (Logistics)" were marked by low power. It is possible that given a larger sample size with complete data, these factors may be significantly affected by geographic location, as was the mean barrier score from the BTPS.

*Limitations*

Although this study takes an important step in examining potential cultural and geographic factors that may impact rural Appalachian parents' willingness to participate in mental health treatment for their children, it was certainly limited by a number of characteristics. First, the study had a relatively small and variable overall sample size. Although the full sample consisted of 232 parents, there were nearly twice as many Rural County participants as there were either Urban or Rural City. This may, in part, reflect the fact that many of the elementary schools in the district that included the two Rural City schools were already participating in university-based research projects and thus declined to participate in the current study. This may have affected principals' willingness to allow recruitment to occur in their school, despite the potential for school benefit in the form of payment for each returned packet. In fact, this was a stated factor in five of seven urban school principals' refusal of project participation, and in that of four rural school principals. This presents a larger challenge to researchers of children's health issues in general, as schools are frequently perceived as an ideal place to recruit participants reflective of the larger population.

In addition to the small overall sample size, parents were widely variable in their completion of packets. As shown by the relatively high numbers of those parents who did not complete free response items, there were numerous pieces of missing data that could not be included in subsequent analyses. Had the analysis-by-analysis sample sizes been larger, it is possible that more significant effects could be detected. Furthermore, the response rate for this study was notably low (7.2%). Despite efforts to increase the number of packets returned, such as the inclusion of postage-paid envelopes and the

promise of monetary benefits to each child's school, this rate was notably lower than expected. It is possible that the questionnaire was overly lengthy, which may have affected parents' willingness to complete the questionnaire. Additionally, the time of year in which the packets were distributed (i.e., approximately three weeks prior to the end of the school year in the rural areas; near the winter holiday season for the urban schools) may have affected the priority of questionnaire completion. Finally, there may have been additional nonsampling error such as differences in how parents interpreted the wording of items or prompts, such as that preceding the barriers and expectations portion of the questionnaire.

Third, a significant limitation of this study is common of survey data. Specifically, the sample is not randomized, but rather, depended solely on who found it useful enough to complete the questionnaire and return it. One could reasonably argue that those parents who took the time to complete the packet and mail it back might be those who are inherently more motivated to engage in extra activities to help their children. Thus, it is possible that this sample reflects a higher likelihood to seek and initiate mental health treatment for children than that of the larger population.

Fourth, it is important to note that the community from which the Rural City sample was pooled is significantly populated by university academic personnel, which may have influenced parents' willingness to participate in research. More importantly, however, it may have resulted in an underestimate of the Appalachian cultural factors operating in that community.

The most important weakness of this study is related to whether the current sample adequately represents the schools and communities from which they were

recruited. Despite attempts to match free and reduced lunch rates of recruited schools, there remained substantial variability in parents' reported previous-year income. Information on median incomes of families whose children were enrolled in the schools sampled for this study was gathered from the Ohio Department of Education (ODE). Because this study obtained income information only in the form of falling within a given range, direct comparison of income between participants and nonparticipants is not possible in this study. However, the most frequent income ranges were tallied for each of the ten participating schools. These most frequent income ranges were then compared to the median income rates reported by the ODE. In neither of the Rural City schools did the most frequent income range appear similar to the median income reported by the ODE. Indeed, in both cases, the most frequently reported income range was nearly double the median income. In only one of the Urban schools did the ODE-reported median income fall in the range of the most frequent parent-reported income range (e.g., $30,0001 to $40,000). In the Rural County, however, three (50%) of the six schools had income ranges that were similar to the median income reported by the ODE. Thus, the results specific to the Rural County sample may be viewed as the most representative subsample within the current study.

One of the methodological weaknesses of this study, the lack of generalizability to groups beyond rural Appalachian Ohio, can actually be viewed as one of its strengths. Indeed, until now, there has been little empirical investigation of cultural factors that could contribute to or deter Appalachian families' health-seeking behaviors. Furthermore, there is a dearth of information about mental health services for children in Appalachian areas. This study presents some of the first empirical data that shed light

onto what practitioners in rural Appalachia often subjectively experience when trying to offer mental health services to children and families. The impetus of this study stemmed from practical experience that even given a free, school-based mental health program targeted toward decreasing disruptive behavior and increasing academic success of elementary school children, clinicians had significant difficulty establishing and maintaining therapeutic relationships with parents (and sometimes teachers) of Appalachian children (Owens & Murphy, 2004; Owens, Richerson, Beilstein, Crane, Murphy, & Vancouver, in press). Although such school-based mental health programs offer benefits such as minimized stigma and collaborative care (Atkins et al., 2003; Brown & Bolen, 2003; Flaherty et al., 1996; Waxman, Weist, & Benson, 1999; Weist, Goldstein, Morris, & Bryant, 2003; Weist, Proescher, Prodente, Ambrose, & Waxman, 2001; Weist, Proescher, Freedman, & Pakewitz, 1995), there remain significant barriers to communication, therapeutic participation, and acceptance of recommended treatments. As school-based mental health programs are focused on reaching children in need, and in particular, those in underserved areas, the findings of this study are particularly relevant. Additionally, while Appalachian culture represents a relatively small portion of the American population, efforts to build and enhance relationships between parents, children, and providers of mental health services will almost certainly benefit such therapy endeavors in many other cultures.

*Future Directions*

Given the importance put upon therapist-client relationship issues, it is important to take the next step to understand what would facilitate improved relationship. Offering focus groups in rural Appalachian areas to get firsthand accounts of parents' perceptions

and suggestions for improvement would provide an invaluable experience for those interested in addressing training and professional development needs. Additionally, further study is needed to examine potentially causal relationships between perceptions of poor relationship and treatment participation as well as general help-seeking behavior in Appalachian areas.

Results of this study offer an important point of discussion for state and regional officials regarding the marketing of services in rural areas. Indeed, results of this study revealed that information provided by the Ohio Department of Mental Health, which may well be a parent's primary source of information when seeking a referral to a children's mental health professional, was scarce in the two rural counties surveyed. Even though there was little referral information available for those two counties, however, Rural City and Rural County parents appeared to be significantly aware of various sources for children's mental health care. This suggests that they may be gathering information in alternate locations. It likely would be beneficial to rural communities if marketing tools were tailored to individual community needs, including informational materials being made at community events, physicians' offices, and health departments. This may result in increased awareness of specialty mental health care services available to children in rural communities, which would likely result in increased quality of such care provision.

Future research is indicated to begin to understand the mechanisms by which parental perceptions of mental health care may work to actually limit children's access to such care. Additionally, family values related to trust are particularly salient in rural Appalachian communities. Future research of Appalachian children's mental health care would do well to revisit the concept of trust as it relates to the valued oral tradition in the

community. It may be that practitioners could help increase parents' perceptions of the acceptability of children's mental health care by enlisting "parent champions" (e.g., parents who have been active in the children's mental health treatment process and who perceive it to be beneficial) to openly discuss their experiences with helping their children access such care.

*Conclusion*

This study represents one of the first empirical investigations of parents' perceptions of children's mental health in Appalachian areas. Given the contrast in this study between rural and urban samples of generally similar socioeconomic status, it was able to investigate whether or not known barriers, such as transportation and cost, remained after factoring out economic variance. Results suggest that providers in Appalachian areas might do well to focus on relationships with their clients and work to better understand rural Appalachian individuals' perceptions of how mental health treatment is effectively delivered.

REFERENCES

Achenbach, T. M. (1991). *Manual for the Child Behavior Checklist/4-18 and 1991 Profile*. Burlington: University of Vermont, Department of Psychiatry.

American Psychiatric Association. (1994). *Diagnostic and Statistical Manual of Psychological Disorders* (4th ed.). Washington, DC: Author.

American Psychological Association. (2002). Ethical Principles for Psychologists and Code of Conduct. *American Psychologist, 57*, 1060-1073.

Angold, A., & Costello, E. (1995). Developmental Epidemiology. *Epidemiologic Reviews, 17*(1), 72-82.

Appalachian Regional Commission. (1994). *General Economic Indicators: Appalachia and Unites States 1965--*. Washington, DC: Author.

Appalachian Regional Commission. (2002). *Subregions in Appalachia*. Retrieved April 22, 2004, from http://www.arc.gov/index.do?nodeId=938

Appalachian Regional Commission. (2004). *County Economic Status in Appalachia, FY 2004*. Retrieved May 15, 2005, from http://www.arc.gov/index.do?nodeId=2146

Armbruster, P., Gerstein, S. H., & Fallon, T. (1997). Bridging the Gap between Service Need and Service Utilization: A School-Based Mental Health Program. *Community Mental Health Journal, 33*(3), 199-211.

Atkins, M. S., Frazier, S. L., Abdul Adil, J., & Talbott, E. (2003). School-Based Mental Health Services in Urban Communities. In M. D. Weist, S. W. Evans & N. A. Lever (Eds.), *Handbook of School Mental Health: Advancing Practice and Research* (pp. 165-178). New York: Kluwer Academic/Plenum.

Atkins, M. S., McKay, M. M., Arvanitis, P., London, L., Madison, S., Costigan, C., Haney, P., Zevenbergen, A., Hess, L., Bennett, D., & Webster, D. (1998). An Ecological Model for School-Based Mental Health Services for Urban Low-Income Aggressive Children. *Journal of Behavioral Health Services and Research, 25*(1), 64-75.

Bandura, A. (1995). Exercise of Personal and Collective Efficacy in Changing Societies. In A. Bandura (Ed.), *Self-Efficacy in Changing Societies* (pp. 1-45). Cambridge, MA: Cambridge University Press.

Beaver, P. D. (1988). Appalachian Cultural Systems, Past and Present. In S. E. Keefe (Ed.), *Appalachian Mental Health* (pp. 15-23). Lexington: University Press of Kentucky.

Beymer, J. K., & Hutchinson, R. L. (2002). Profile of Problem Children from a Rural County in Indiana. *Adolescence, 37*(145), 183-208.

Brandenburg, N. A., Friedman, R. M., & Silver, S. E. (1990). The Epidemiology of Childhood Psychiatric Disorders: Prevalence Findings from Recent Studies. *Journal of the American Academy of Child & Adolescent Psychiatry, 29*(1), 76-83.

Brown, M. B., & Bolen, L. M. (2003). School-Based Health Centers: Strategies for Meeting the Physical and Mental Health Needs of Children and Families. *Psychology in the Schools, 40*(3), 279-287.

Campbell, C., Richie, S. D., & Hargrove, D. S. (2003). Poverty and Rural Mental Health. In B. H. Stamm (Ed.), *Rural Behavioral Health Care: An Interdisciplinary Guide.* (pp. 41-51). Washington, DC: American Psychological Association.

Clark, S. J., Savitz, L. A., & Randolph, R. K. (1999). Rural Children's Health. In T. C. Ricketss (Ed.), *Rural Health in the United States* (pp. 150-158). New York: Oxford University Press.

Coalition of Rural and Appalachian Schools. (2005). *Summary of FY 2004 Vital Statistics for Ohio Appalachian School Districts*. Retrieved 2005, May 29, from http://www.coras.org/character.html

Cooper, S., & Wagenfeld, M. O. (1998, 2000). *Delivering Mental Health Services to Children and Adolescents with Serious Mental Illness in Frontier Areas: Parent and Provider Views*. Retrieved 06/23/2003, 2003, from http://www.wiche.edu/MentalHealth/Frontier/letter17.html

Costello, E. J., Keeler, G. P., & Angold, A. (2001). Poverty, Race/Ethnicity, and Psychiatric Disorder: A Study of Rural Children. *American Journal of Public Health, 91*, 1494-1498.

Couto, R. (1994). *An American Challenge: A Report on Economic Trends and Social Issues in Appalachia*. Dubuque, IA: Kendall/Hunt.

Coward, R. T., Clarke, L. L., & Seccombe, K. (1993). Predicting the Receipt of Employer-Sponsored Health Insurance: The Role of Residence and Other Personal and Workplace Characteristics. *Journal of Rural Health, 9*(4), 281-292.

Crijnen, A. A. M., Achenbach, T. M., & Verhulst, F. C. (1997). Comparisons of Problems Reported by Parents of Children in 12 Cultures: Total Problems, Externalizing, and Internalizing. *Journal of the American Academy of Child & Adolescent Psychiatry, 36*, 1269-1277.

Cutrona, C. E., Halvorson, M. B. J., & Russell, D. W. (1996). Mental Health Services for Rural Children, Youth, and Their Families. In C. A. Heflinger & C. T. Nixon (Eds.), *Families and the Mental Health System for Children and Adolescents: Policy, Services, and Research* (pp. 217-237). Thousand Oaks: Sage Publications.

DeLeon, P. H., Wakefield, M., & Hagglund, K. J. (2003). The Behavioral Health Care Needs of Rural Communities. In B. H. Stamm (Ed.), *Rural Behavioral Health Care: An Interdisciplinary Guide.* (pp. 23-31). Washington, DC: American Psychological Association.

Duncan, C. M., & Lamborghini, N. (1994). Poverty and Social Context in Remote Rural Communities. *Rural Sociology, 59*, 437-461.

Flaherty, L. T., & Osher, D. (2003). History of School-Based Mental Health Services in the United States. In M. D. Weist, S. W. Evans & N. A. Lever (Eds.), *Handbook of School Mental Health: Advancing Practice and Research* (pp. 11-22). New York: Kluwer Academic/Plenum.

Flaherty, L. T., & Weist, M. D. (1999). School-Based Mental Health Services: The Baltimore Models. *Psychology in the Schools, 36*, 379-389.

Flaherty, L. T., Weist, M. D., & Warner, B. S. (1996). School-Based Mental Health Services in the United States: History, Current Models and Needs. *Community Mental Health Journal, 32*, 341-352.

Flisher, A., Kramer, R., Grosser, R., Alegria, M., Bird, H. R., Bourdon, K., Goodman, S., Greenwald, S., Horwitz, S., Moore, R., Narrow, W., & Boven, C. (1997). Correlates of Unmet Need for Mental Health Services by Children and Adolescents. *Psychological Medicine, 27*, 1145-1154.

Fortney, J., Rost, K., & Warren, J. (2000). Comparing Alternative Methods of Measuring Geographic Access to Health Services. *Health Services and Outcomes Research Methodology, 1*(2), 173-187.

Fox, J. C., Blank, M., Berman, J., & Rovnyak, V. G. (1999). Mental Disorders and Help Seeking in a Rural Impoverished Population. *International Journal of Psychiatry in Medicine, 29*(2), 181-195.

Friedman, R., Katz-Leavy, J., Manderscheid, R., & Sondheimer, D. (1997). *Prevalence of Serious Emotional Disturbance in Children and Adolescents*. Rockville, MD: Center for Mental Health Services.

Garcia, J. A., & Weisz, J. R. (2002). When Youth Mental Health Care Stops: Therapeutic Relationship Problems and Other Reasons for Ending Youth Outpatient Treatment. *Journal of Consulting and Clinical Psychology, 70*(2), 439-443.

Glied, S., Hoven, C. W., Moore, R., Bowen-Garrett, A., & Regier, D. A. (1997). Children's Access to Mental Health Care: Does Insurance Matter? *Health Affairs, 16*(1), 167-174.

Goldsmith, H. F., Wagenfeld, M. O., Manderscheid, R. W., & Stiles, D. (1997). Specialty Mental Health Services in Metropolitan and Nonmetropolitan Areas: 1983 and 1990. *Administration & Policy in Mental Health, 24*(6), 475-488.

Halpern, R. (1993). Poverty and Infant Development. In C. H. Zeanah Jr. (Ed.), *Handbook of Infant Mental Health* (pp. 73-86). New York: Guilford.

Hartley, D., Quam, L., & Lurie, N. (1994). Urban and Rural Differences in Health Insurance and Access to Care. *Journal of Rural Health, 10*(2), 98-108.

Health Resources and Services Administration Bureau of Health Professions. (1990a). *Health Professional Shortage Area Guidelines for Mental Health Care Designation*. Retrieved February 28, 2004, from http://bhpr.hrsa.gov/shortage/hpsaguidement.htm

Health Resources and Services Administration Bureau of Health Professions. (1990b). *Health Professional Shortage Area Mental Health Designation Criteria*. Retrieved February 28, 2004, from http://bhpr.hrsa.gov/shortage/hpsacritmental.htm

Hill, G., Howard, A., Weaver, D. L., & Stamm, B. H. (2003). Health Planning and Rural and Frontier Mental and Behavioral Health Care. In B. H. Stamm (Ed.), *Rural Behavioral Health Care: An Interdisciplinary Guide.* (pp. 81-91). Washington, DC: American Psychological Association.

Hobfoll, S. E., & Stephens, M. A. P. (1990). Social Support During Extreme Stress: Consequences and Intervention. In B. R. Sarason, I. G. Sarason & G. R. Pierce (Eds.), *Social Support: An Interactional View* (pp. 454-481). New York: Wiley.

Hoganbruen, K., Clauss-Ehlers, C., Nelson, D., & Faenza, M. M. (2003). Effective Advocacy for School-Based Mental Health Programs. In M. D. Weist, S. W. Evans & N. A. Lever (Eds.), *Handbook of School Mental Health: Advancing Practice and Research* (pp. 45-59). New York: Kluwer Academic/Plenum.

Hollingshead, A. B. (1975). *Four Factor Index of Social Status*. New Haven, CT: Yale University Department of Sociology.

Horwitz, S., & Hoagwood, K. (2002). Children and Adolescents. *Mental Health Services Research, 4*(4), 239-266.

Issakidis, C., & Teesson, M. (1999). Measurement of Need for Care: A Trial of the Camberwell Assessment of Need and the Health of the Nation Outcome Scales. *Australian and New Zealand Journal of Psychiatry, 33*, 754-759.

Kazdin, A. E., Holland, L., & Breton, S. (1991). *Barriers to Participation in Treatment Scale: Parent and Therapist Versions*. New Haven, CT: Yale University.

Kazdin, A. E., Holland, L., Crowley, M., & Breton, S. (1997). Barriers to Participation in Treatment Scale: Evaluation and Validation in the Context of Child Outpatient Treatment. *Journal of Child Psychology and Psychiatry, 28*, 1051-1062.

Kazdin, A. E., & Wassell, G. (1999). Barriers to Treatment Participation and Therapeutic Change among Children Referred for Conduct Disorder. *Journal of Clinical Child Psychology, 28*(2), 160-172.

Keefe, S. E. (1988). Appalachian Family Ties. In S. E. Keefe (Ed.), *Appalachian Mental Health* (pp. 24-35). Lexington: University Press of Kentucky.

Keller, P. A., & Murphy, D. (1982). Rural Health: An Overview of the Issues. In P. A. Keller & J. D. Murray (Eds.), *Handbook of Rural Community Mental Health* (pp. 5-17). New York: Human Services Press.

Leibson, C. L., Katusic, S. K., Barbaresi, W. J., Ransom, J., & O'Brien, P. C. (2001). Use and Costs of Medical Care for Children and Adolescents with and without Attention-Deficit/Hyperactivity Disorder. *JAMA: Journal of the American Medical Association, 285*(1), 60-66.

Lohmann, R. A. (1990). Four Perspectives on Appalachian Culture and Poverty. *Journal of the Appalachian Studies Association, 2*, 76-88.

Meadows, G., Harvey, C., Fossey, E., & Burgess, P. (2000). Assessing Perceived Need for Mental Health Care in a Community Survey: Development of the Perceived Need for Care Questionnaire (Pncq). *Social Psychiatry and Psychiatric Epidemiology, 35*, 427-435.

Merwin, E. I., Goldsmith, H. F., & Manderscheid, R. W. (1995). Human Resource Issues in Rural Mental Health Services. *Community Mental Health Journal, 31*(6), 525-537.

Morrisey-Kane, E., & Prinz, R. J. (1999). Engagement in Child and Adolescent Treatment: The Role of Parental Cognitions and Attributions. *Clinical Child and Family Psychology Review, 2*(3), 183-198.

Mulder, P. L., Linkey, H., & Hager, A. (2003). Needs Assessment, Identification and Mobilization of Community Resources, and Conflict Management. In B. H. Stamm (Ed.), *Rural Behavioral Health Care: An Interdisciplinary Guide.* (pp. 67-79). Washington, DC: American Psychological Association.

Nabors, L. A., Weist, M. D., Reynolds, M. W., Tashman, N. A., & Jackson, C. Y. (1999). Adolescent Satisfaction with School-Based Mental Health Services. *Journal of Child and Family Studies, 8*, 229-236.

Nabors, L. A., Weist, M. D., Tashman, N. A., & Myers, C. P. (1999). Quality Assurance and School-Based Mental Health Services. *Psychology in the Schools, 36*, 485-493.

New Freedom Commission on Mental Health. (2003). *Achieving the Promise: Transforming Mental Health Care in America. Final Report.* (No. DHHS Pub.

SMA-03-3832). Rockville, MD: United States Department of Health and Human Services.

Nordal, K. C., Copans, S. A., & Stamm, B. H. (2003). Children and Adolescents in Rural and Frontier Areas. In B. H. Stamm (Ed.), *Rural Behavioral Health Care: An Interdisciplinary Guide.* (pp. 159-170). Washington, DC: American Psychological Association.

Office of Ohio Health Plans. (2000). *Ohio Medicaid Report: Update July 2000*. Columbus: Ohio Job and Family Services.

Paige, L. Z., Kitzis, S. N., & Wolfe, J. (2003). Rural Underpinnings for Resiliency and Linkages (Rural): A Safe Schools/Healthy Students Project. *Psychology in the Schools, 40*, 531-547.

Richardson, L. A. (2001). Seeking and Obtaining Mental Health Services: What Do Parents Expect? *Archives of Psychiatric Nursing, 15*(5), 223-231.

Ricketts, T. C. (Ed.). (1999). *Rural Health in the United States*. New York: Oxford University Press.

Roberts, R. E., Attkisson, C. C., & Rosenblatt, A. (1998). Prevalence of Psychopathology among Children and Adolescents. *American Journal of Psychiatry, 155*(6), 715-725.

Rost, K., Fortney, J., Rischer, E., & Smith, J. (2002). Use, Quality, and Outcomes of Care for Mental Health: The Rural Perspective. *Medical Care and Research, 59*(3), 231-265.

Rost, K., Fortney, J., Zhang, M., Smith, J., & Smith, G. R. (1999). Treatment of Depression in Rural Arkansas: Policy Implications for Improving Care. *Journal of Rural Health, 15*(3), 308-315.

Sears, S. F., Jr., Evans, G. D., & Kuper, B. D. (2003). Rural Social Service Systems as Behavioral Health Delivery Systems. In B. H. Stamm (Ed.), *Rural Behavioral Health Care: An Interdisciplinary Guide.* (pp. 109-120). Washington, DC: American Psychological Association.

Shapiro, S., Skinner, E. A., Kramer, M., Steinwachs, D. M., & Regier, D. A. (1985). Measuring Need for Mental Health Services in a General Population. *Medical Care and Research, 23*, 1033-1043.

Stamm, B. H., Metrick, S. L., Kenkel, M. B., Daveport, J. A., Daveport III, J., Hudnall, A. C., Ruth, A. W., Higson-Smith, C., & Markstrom, C. A. (2003). Introduction. In B. H. Stamm (Ed.), *Rural Behavioral Health Care: An Interdisciplinary Guide* (pp. 3-10). Washington, DC: American Psychological Association.

Starr, S., Campbell, L. R., & Herrick, C. A. (2002). Factors Affecting Use of the Mental Health System by Rural Children. *Issues in Mental Health Nursing, 23*, 291-304.

Staudt, M. M. (2003). Helping Children Access and Use Services: A Review. *Journal of Child and Family Studies, 12*(1), 49-60.

Stiffman, A. R., Horwitz, S. M., Hoagwood, K., Compton, W., Cottler, L., Bean, D. L., Narrow, W. E., & Weisz, J. R. (2000). The Service Assessment for Children and Adolescents (SACA): Adult and Child Reports. *Journal of the American Academy of Child and Adolescent Psychiatry, 39*, 1032-1039.

Sullivan, G., Jackson, C. A., & Spritzer, K. L. (1996). Characteristics and Service Use of Seriously Mentally Ill Persons Living in Rural Areas. *Psychiatric Services, 47*(1), 57-61.

Teagle, S. E. (2002). Parental Problem Recognition and Child Mental Health Service Use. *Mental Health Services Research, 4*(4), 257-266.

Teleki, J. K., & Buck-Gomez, S. (2002). Child Care and Early Education: Satisfaction with Services among Rural Families. *Early Childhood Education Journal, 29*(3), 161-166.

The Rural and Appalachian Youth and Families Consortium. (1996). Parenting Practices and Interventions among Marginalized Families in Appalachia: Building on Family Strengths. *Family Relations, 45*, 387-396.

U. S. Department of Agriculture, Economic Research Service (USDA-ERS). (2000). *Rural America*. Retrieved February 29, 2003, from http://www.ers.usda.gov/Topics/view.asp?T=104000

U. S. Department of Agriculture, Economic Research Service (USDA-ERS). (2004). *Rural Income, Poverty, and Welfare: Rural Poverty*. Retrieved January 25, 2005, from http://www.ers.usda.gov/Briefing/IncomePovertyWelfare/ruralpoverty/

U. S. Department of Agriculture, Economic Research Service (USDA-ERS). (2005). *Rural Children at a Glance* (No. 1). Washington, DC.

U.S. Bureau of the Census. (2001). *Urban Area Criteria for Census 2000: Proposed Criteria* (No. DOCID: fr28mr01-105). Washington, DC: U.S. Government Printing Office.

U.S. Congress, Office of Technology Assessment. (1990). *Health Care in Rural America* (No. OTA-H-34). Washington, DC: U.S. Government Printing Office.

U.S. Department of Health and Human Services. (2001). *Health People 2010: Understanding and Improving Health* (2nd ed.). Washington, DC: U.S. Government Printing Office.

United States Census Bureau. (1995). *Urban and Rural Definitions*. Retrieved March 4, 2004, from http://www.census.gov/population/censusdata/urdef.txt

United States Office of Technology Assessment. (1991). *Children's Mental Health: Problems and Services--a Background Paper*. Congress of the United States, Washington, DC: U.S. Government Printing Office.

Walrath, C., Miech, R., Holden, E. W., Manteuffel, B., Santiago, R., & Leaf, P. (2003). Child Functioning in Rural and Nonrural Areas: How Doe It Compare When Using the Service Program Site as the Level of Analysis? *The Journal of Behavioral Health Services and Research, 30*(4), 452-461.

Waxman, R. P., Weist, M. D., & Benson, D. M. (1999). Toward Collaboration in the Growing Education-Mental Health Interface. *Clinical Psychology Review, 19*(2), 239-253.

Weist, M. D., Goldstein, A., Morris, L., & Bryant, T. (2003). Integrating Expanded School Mental Health Programs and School-Based Health Centers. *Psychology in the Schools, 40*(3), 297-308.

Weist, M. D., Myers, C. P., Danforth, J., McNeil, D. W., Ollendick, T. H., & Hawkins, R. (2000). Expanded School Mental Health Services: Assessing Needs Related to School Level and Geography. *Community Mental Health Journal, 36*(3), 259-273.

Weist, M. D., Proescher, E., Prodente, C. A., Ambrose, M. G., & Waxman, R. P. (2001). Mental Health, Health, and Education Staff Working Together in Schools. *Child and Adolescent Psychiatric Clinics of North America, 10*, 33-43.

Weist, M. D., Proescher, E. L., Freedman, A. H., & Pakewitz, D. A. (1995). School-Based Health Services for Urban Adolescents: Psychosocial Characteristics of Clinic Users Versus Nonusers. *Journal of Youth and Adolescence, 24*, 251-265.

Wu, P., Hoven, C. W., Bird, H. R., Moore, R. E., Cohen, P., Alegria, M., Dulcan, M. K., Goodman, S. H., Horwitz, S. M., Lichtman, J. H., Narrow, W. E., Rae, D. S., Regier, D. A., & Roper, M. T. (1999). Depressive and Disruptive Disorders and Mental Health Service Utilization in Children and Adolescents. *Journal of the American Academy of Child & Adolescent Psychiatry, 38*(9), 1081-1090.

# APPENDICES

Appendix A—Parent Questionnaire

**Please provide the response that best describes you:**

1. ***Circle one:*** **M F** 2. ***Your Age*** _____ 3. ***Age of Child(ren):*** ___ _____ _____ _____

4. ***How many people currently live in your household?*** _____
   (***Children*** _____ ***Adults*** _____ ***Other*** _____)

5. ***What is your relationship to the elementary-aged child from whom you received this survey?***
   Parent Grandparent Aunt/Uncle Foster Parent
   Other (please describe) _____

6. ***Did your parents live in the Southeast region of Ohio (counties such as Athens, Hocking, Gallia)?***
   YES NO

7. ***Did your grandparents live in the Southeast region of Ohio (counties such as Athens, Hocking, Galia)?*** YES NO

8. ***What is your highest level of education?***
   Less than 12th grade Finished 12th grade Some college Finished college
   Some graduate school Graduate school (MA, Ph.D.) Postgraduate degree

9. ***What is the highest level of education of your spouse/current partner (if living in the home)?***
   Less than 12th grade Finished 12th grade Some college Finished college
   Some graduate school Graduate school (MA, Ph.D.) Postgraduate degree

10. ***Please check the item below that best describes your ethnic background:***
    Caucasian Black/African-American Hispanic American
    Indian or Alaska Native Asian or Pacific Islander
    Other (please describe) _____

11. ***What was your family's approximate income last year?***
    $10,000 or less $10,001-$20,000 $20,001-$30,000 $30,001-$40,000
    $40,001-$50,000 $50,001-$60,000 $60,001-$70,000 Over $70,000

12. ***What is your current marital status?***
    Married Divorced Separated Living with Partner Widowed

13. ***What is your current occupation?*** _____

14. ***What is your spouse's current occupation?*** _____

15. ***Has this child ever received special education identification in school, such as "Learning Disabled"(LD), "Emotionally Disturbed"(ED), "Other Health Impaired" (OHI), or "Severely Behaviorally Handicapped" (SBH)?***
    No Yes (please describe) _____

16. ***Has this child ever received counseling or mental health services for behavioral or emotional problems?***
    No Yes (If so, please state where on the line below, e.g., school, mental health center, private office) _____

17. ***If no, have any of the following individuals ever suggested that your child should seek counseling or mental health services (please circle)?***

| | | |
|---|---|---|
| Friend or relative | School principal | Psychologist |
| Parent of my child's friend | School guidance counselor | Psychiatrist |
| Minister/pastor/priest | School psychologist | Pediatrician |
| My child's teacher | Children's Services worker | Emergency room doctor |
| Day care provider | Social worker/counselor | |

    Other (describe): _____

18. ***Do you think that your child struggles with emotional or behavioral problems?*** Yes No

19. ***Do you think that your child could benefit from counseling or mental health services?*** Yes No

20. ***In the space below, please list as many types and/or names of agencies as you can think of in your community that could address the counseling or mental health needs of an elementary-aged child? Then, rank how acceptable they are TO YOU if your child were to need such services.***

| | *Not at all acceptable* | *Somewhat acceptable* | *Acceptable* | *Very acceptable* |
|---|---|---|---|---|
| _____ | *1* | *2* | *3* | *4* |
| _____ | *1* | *2* | *3* | *4* |
| _____ | *1* | *2* | *3* | *4* |
| _____ | *1* | *2* | *3* | *4* |
| _____ | *1* | *2* | *3* | *4* |
| _____ | *1* | *2* | *3* | *4* |
| _____ | *1* | *2* | *3* | *4* |

***Please circle your TOP CHOICE (where you would most likely take your child to if he/she needed mental health services).***

22. ***If you wanted your child to receive mental health or counseling services, how would you go about finding those services?***

23. ***Please put an "X" next to any of the types of counseling or mental health services that are available in your community for an elementary-aged child struggling with behavioral and/or emotional problems.***

___Community mental health agency (e.g.,Tri-County Mental Health)
___Private psychologist
___School guidance counselor
___School psychologist
___University-based psychology clinic (e.g., Ohio University, Ohio State University)
___Other (please describe)_____

___Children's Services caseworkers
___Hospital emergency room
___Pediatrician/doctor
___Teachers
___Principals
___Ministers/pastors/priests/rabbis/clergy
___Alternative treatments (herbalists, etc.)
___Psychiatrist
___Counselor
___Clinical social worker

24. ***Please put an "X" next to any of the following situations that are true in your life:***

___I recently moved to another house or apartment
___My medical insurance does not cover counseling or mental health treatment
___I recently moved or intend to move too far away from the clinic to come to treatment sessions (out of the area)
___My family recently changed in size (another baby or someone moved in or out of the home)
___I recently lost my job or had a change in income
___I recently got a job or changed jobs

___There is/was an alcohol or drug problem in my family
___There is/was physical or sexual abuse in my family
___A close friend or relative recently got very sick or died
___My child recently moved out of the home
___My child recently was put into an inpatient program or residential program
___I have legal problems (arrest, driving violations, etc.)
___My child recently changed schools during treatment
___I recently got separated or divorced

***Imagine that you want to get mental health or counseling services for your child. Below is a list of statements that some parents have about counseling or mental health treatment for their child. For each item, please place an* X *in the box that indicates HOW MUCH YOU AGREE WITH the listed statement.***

**1—Not at all 2—A little 3—Neutral 4—A fair amount 5—A lot**

| | 1 Not at all | 2 A little | 3 Neutral | 4 A fair amount | 5 A lot |
|---|---|---|---|---|---|
| 25. **My child will refuse to go to the sessions** | | | | | |
| 26. **We do not have transportation (car, truck, taxi) to travel to treatment** | | | | | |
| 27. **My child is involved in other activities (sports, clubs, music lessons) that would make it hard to come to a session** | | | | | |
| 28. **Scheduling appointment times for treatment would be difficult** | | | | | |
| 29. **Treatment takes too long (too many weeks)** | | | | | |
| 30. **Treatment would conflict with other activities in which I am involved** | | | | | |
| 31. **Treatment is not necessary** | | | | | |
| 32. **I worry that I won't have a good relationship with the therapist** | | | | | |
| 33. **Treatment will cost to much** | | | | | |
| 34. **Billing will be a big hassle** | | | | | |
| 35. **Treatment won't be what I expect** | | | | | |
| 36. **Information we get from treatment (handouts, referral information) will be confusing for me or my child** | | | | | |
| 37. **My child will have trouble understanding treatment** | | | | | |
| 38. **I experience too much stress in my life to participate in treatment** | | | | | |
| 39. **I will probably lose interest in coming to sessions** | | | | | |
| 40. **My personal health problems or illness would stop me from getting treatment for my child** | | | | | |
| 41. **My child's health problems or illness will stop me from getting treatment for him or her** | | | | | |
| 42. **Crises at home will get in the way** | | | | | |
| 43. **I will have to give too much personal information to the therapist** | | | | | |
| 44. **Treatment will just add more stress to my life** | | | | | |

| | 1<br>Not at all | 2<br>A little | 3<br>Neutral | 4<br>A fair amount | 5<br>A lot |
|---|---|---|---|---|---|
| 45. **Treatment will become less important as it goes on** | | | | | |
| 46. **Treatment will be more work than I think** | | | | | |
| 47. **I will not have a say in my child's treatment** | | | | | |
| 48. **Treatment will not focus on my child's life and problems** | | | | | |
| 49. **The therapist won't be confident that treatments will work** | | | | | |
| 50. **The therapist might question my ability to carry out treatment programs at home** | | | | | |
| 51. **Treatment might "bring out" new or different problems in my child** | | | | | |
| 52. **My child's behavior will improve on its own; treatment is not needed** | | | | | |
| 53. **Treatment will not work** | | | | | |
| 54. **Bad weather will prevent us from coming to treatment** | | | | | |
| 55. **The therapist might not support me or my efforts** | | | | | |
| 56. **The work assigned to me as part of this treatment will be difficult** | | | | | |
| 57. **My time is limited; I will not have time for the assigned work** | | | | | |
| 58. **My child will never be home long enough to do the homework assigned** | | | | | |
| 59. **Family health problems or illness in our home will stop me from getting treatment for my child** | | | | | |
| 60. **The therapist will not call enough** | | | | | |
| 61. **Getting a babysitter so I can come to treatment with my child will be a problem** | | | | | |
| 62. **Parking at the treatment agency will stop me from getting treatment for my child be problematic** | | | | | |
| 63. **Members of my family would stop me from getting treatment for my child or they would disagree with me about whether we should come to treatment at all** | | | | | |
| 64. **I am too tired after work to go to sessions** | | | | | |
| 65. **My job schedule is too hectic** | | | | | |
| 66. **Treatment would take time away from spending time with my children** | | | | | |
| 67. **I have trouble with other children at home, which would make it hard to come to treatment** | | | | | |

| | 1<br>Not at all | 2<br>A little | 3<br>Neutral | 4<br>A fair amount | 5<br>A lot |
|---|---|---|---|---|---|
| 68. **Moving to another home would get in the way of coming to treatment** | | | | | |

| | 1<br>Not at all | 2<br>A little | 3<br>A fair amount | 4<br>A lot |
|---|---|---|---|---|
| 69. **I would be concerned about others knowing that my child is being treated** | | | | |
| 70. **I would be embarrassed about my child receiving treatment** | | | | |
| 71. **Treatment would go against my religious beliefs** | | | | |
| 72. **I would feel uncomfortable seeking treatment for my child** | | | | |
| 73. **I don't know much about treatment** | | | | |
| 74. **I don't understand how treatment can be helpful** | | | | |
| 75. **Counselors cannot be trusted** | | | | |
| 76. **Counselors will not care about me/my child** | | | | |
| 77. **Counselors will not respect me/my child** | | | | |
| 78. **Counselors will not be friendly to me/my child** | | | | |
| 79. **Counselors will work to remove my child from my home** | | | | |
| 80. **Counselors will put my child in a hospital against his/her will** | | | | |
| 81. **I do not know where to go for treatment for my child** | | | | |
| 82. **I will not be satisfied with the treatment my child receives** | | | | |
| 83. **I will have to wait a long time at the treatment agency** | | | | |
| 84. **I don't think counselors know enough about my child's needs** | | | | |
| 85. **I don't think there is "good" care available for my child** | | | | |
| 86. **My child's problems will get better with medication** | | | | |
| 87. **My child's problems will get better with talking** | | | | |

***<u>THANK YOU</u> FOR YOUR PARTICIPATION!***
***$1.00 WILL BE DONATED TO YOUR CHILD'S SCHOOL WHEN YOUR PACKET IS RECEIVED!!!***

Appendix B—Parent Recruitment Flyer

# Help Your Child's School Earn Money!

Ohio University and your local community are working to understand what kinds of mental health or counseling services are available for elementary school-aged children in your county, and what you think about them.

Help us by completing the attached questionnaire and telling us what you think about services in your area. You can either it send it back to us in the attached postage-paid envelope or return it to school with your child. When we receive it, $1 will be donated to your child's school.

***The more questionnaires we receive from parents like you, the more the children benefit!!***

Your participation is *completely* voluntary! If you want to participate, simply return your completed questionnaire. If you do not wish to help us, simply do nothing with the questionnaire.

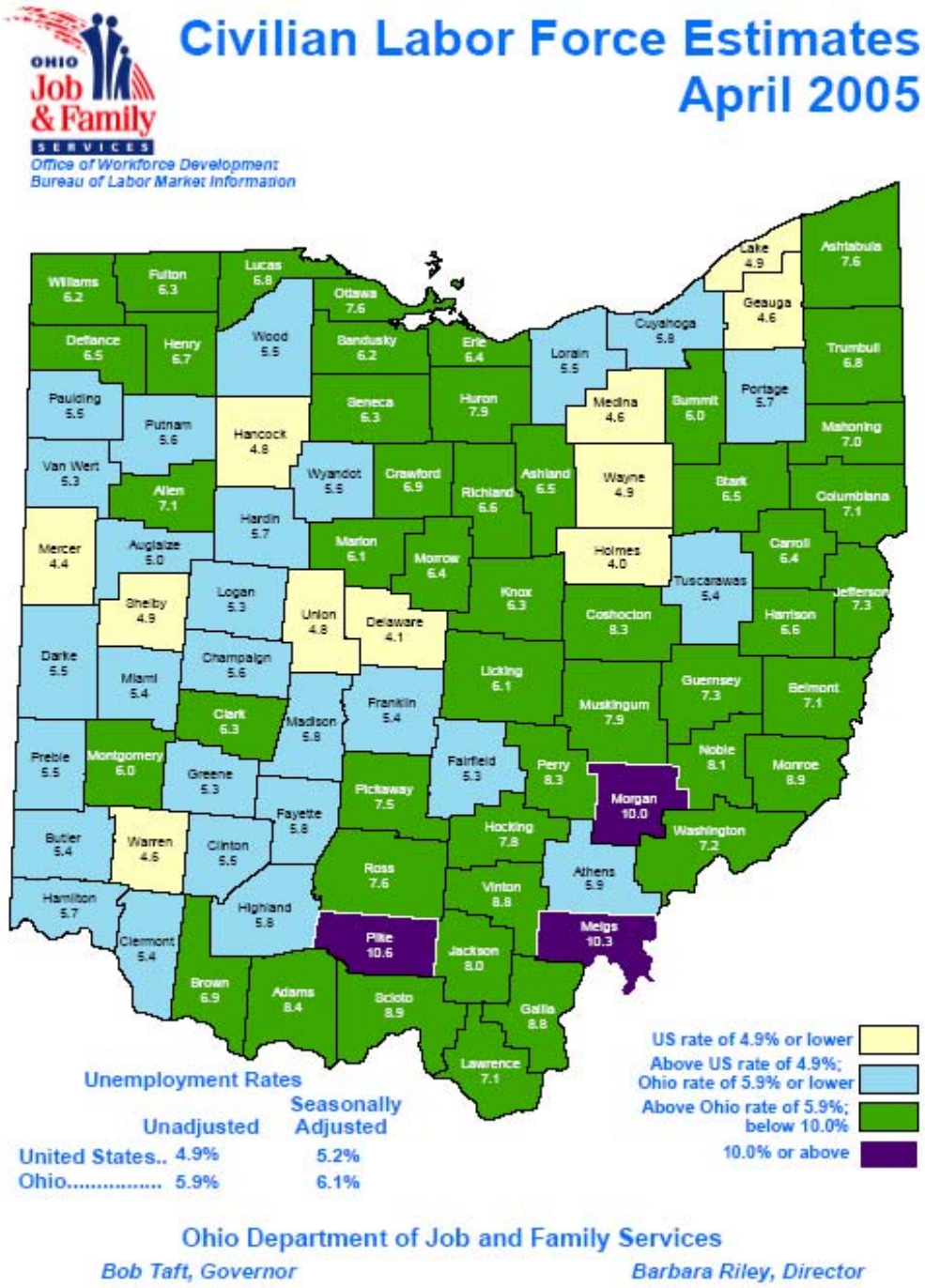
Because we do not ask for any personally identifying information, your answers are completely confidential. Some of the questions are of a personal nature and may make some people feel uncomfortable, but there are no other known risks to you as a participant. School personnel and community mental health providers will receive summaries of our research at the end of this study, but they will not know the specific parents who did and did not participate.

Benefits: By taking approximately 15 minutes of your time to complete the attached survey and returning it to us, you can help us learn how we can make mental health services more available and acceptable to families just like yours throughout your community!

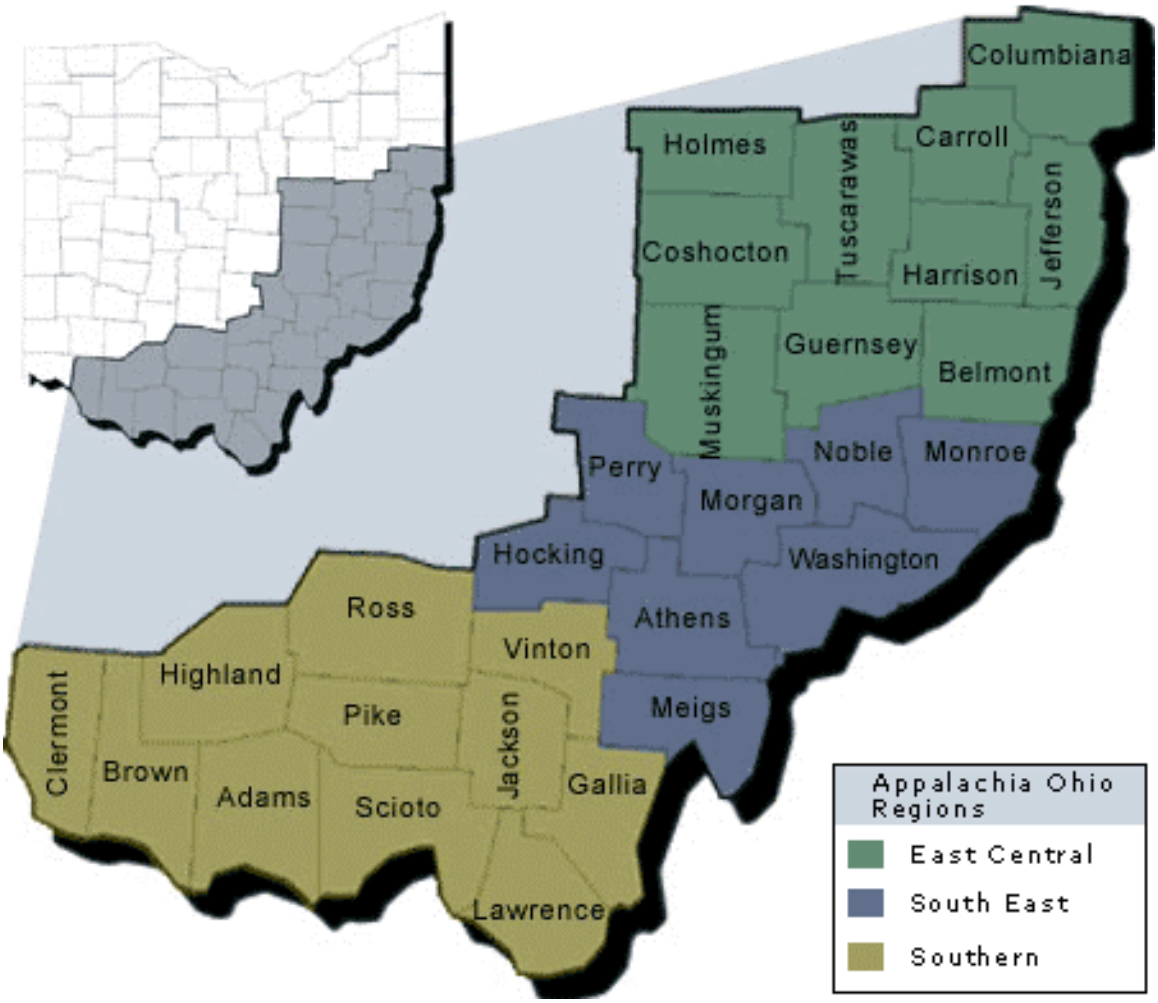
Questions? Please contact Caroline Murphy, M.S. at cm532300@ohiou.edu or at (740) 597-2925. Additionally, you may contact her advisor, Julie S. Owens, Ph.D. at owensj@ohiou.edu or at (740) 593-1074. If you have any questions regarding your rights

as a research participant, please contact Jo Ellen Sherow, Director of Research Compliance, Ohio University, (740)593-0664.

Appendix C—April 2005 Ohio Unemployment Rates



Appendix D—Map of Appalachian Ohio



## Appendix E—Parents' Acceptability Ratings of Mental Health Agenices

Mean (Standard Deviation) Acceptability Ratings of Free-Listing Agencies by Community Type

| | Urban | Rural County | Rural City | Total |
|---|---|---|---|---|
| CMHC | 2.57 (0.49) | 3.14 (0.82) | 2.47 (0.20) | 2.73 (0.36) |
| Children's Services | 1.83 (0.76) | 2.11 (1.13) | 3.00 (1.00) | 2.31 (0.61) |
| Pediatrician | 3.54 (0.30) | 3.80 (0.40) | 3.25 (1.06) | 3.50 (0.28) |
| School Entity | 2.13 (0.78) | 2.95 (0.52) | 2.73 (0.22) | 2.60 (0.42) |
| Private Psychologist | 3.50 (0.58) | 3.55 (0.46) | 3.26 (0.74) | 3.44 (0.16) |
| Faith-based Services | 3.20 (0.57) | 3.50 (0.59) | 3.00 (1.41) | 3.23 (0.25) |
| Hospital | 2.80 (0.54) | 3.00 (1.73) | 3.00 (0.00) | 2.93 (0.12) |
| Health Department | 3.50 (0.71) | 2.88 (0.43) | 3.25 (0.96) | 3.21 (0.31) |
| University-based Psychology Clinic | 2.50 (1.25) | 3.67 (0.00) | 3.25 (0.35) | 3.14 (0.59) |
| Teachers/Principal | 2.00 (0.00) | 3.13 (0.63) | 4.00 (0.00) | 3.04 (1.00) |
| Other ("peer mentoring") | 2.50 (0.71) | 3.67 (0.58) | No ratings | 2.06 (1.87) |

Note: "CMHC" = Community Mental Health Center, "Health Department" also includes other non-mental health-focused government agencies