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The Conceptualization of Self-Identity among Residents of Appalachia Ohio

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The Conceptualization of Self-Identity among Residents of Appalachia Ohio

By Jessica L. Krok-Schoen, Angela L. Palmer-Wackerly, Phokeng M. Dailey, and Janice L. Krieger

Social identity and its association to culture, place, and health is an important, but understudied, area of research. One social group that illustrates this connection between place and identity is people living in Appalachia. This exploratory mixed-method study investigates the appropriateness of the self-concept of Ohio Appalachian adults with cancer as "Appalachian," the context associated with that identity and its association with community identification, rural identity, Appalachian Regional Commission (ARC) status, demographic data, and clinical trial (CT) enrollment. Forty-nine adults with cancer residing in Appalachia were recruited. Participants were cancer patients who (1) were offered a randomized clinical cancer trial; and (2) lived in or were treated in one of the thirty-two rural Appalachian counties in Ohio. Forty-seven percent of participants identified themselves as Appalachian and were reluctant to self-identify as Appalachian because of negative stereotypes or uncertainty about the term. Furthermore, many participants endorsed their residence within Appalachia but not their own identity. Future studies should utilize a culturally grounded approach and community-based methodology to explore how residents of Appalachian communities define their community and self-identification in order to improve health in the region.

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Introduction

Ohio Appalachia is a distinct geographic region with disproportionally high cancer incidence and mortality rates (Fisher et al. 2012). To investigate this disparity, several initiatives (e.g., National Cancer Institute [NCI] Community Oncology Research program) have strived to bring scientific research efforts, mainly clinical trials (CTs), to this area (NIH 2011). Despite the generally positive outcomes of these initiatives, there is no clear evidence that these programs significantly increased CT enrollment among medically underserved areas such as Appalachia (Paskett et al. 2002).

A new approach is needed in order to garner interest in CT enrollment in this medically underserved population. Increasing CT participation in Appalachia will depend, at least in part, on the extent to which interventions are grounded in the social identities of people in this region (Ndiaye et al. 2011). This paper aims to explore the concept of Appalachian identity among a sample of Ohio Appalachian adults with cancer, who have been offered CT enrollment. By exploring Appalachian identity among this medically underserved population, health researchers may be able to understand how these individuals identify with the term "Appalachian," and if Appalachian identity affects their health behaviors.

Social Identity and Health

When discussing the association between identity and health, it is important to make the distinction between (a) self- (or personal) identity, consisting of self-definitions in terms of unique characteristics; (b) role identities, a definition of self as a person who performs a particular role; and (c) social identities, classifying oneself with a social group or category (e.g., gender, neighborhood) (Pierro, Mannetti, and Livi 2003; Thoits and Virshup 1997). In this paper, we draw on social identity theory because it incorporates geographic place into the definition of identity, and is, therefore, the most appropriate (Stryker and Burke 2000; Twigger-Ross, Bonaiuto, and Breakwell 2003).

Emerging theoretical and empirical work suggests social identity may be an important tool for developing psychosocial explanations of geographical health inequalities (Haslam et al. 2009; Tribe and Webb 2014). The direct and indirect effects of social identity on health can be elicited through a contextual approach that bridges unequal social structures (e.g., financial resources, health care access) and individual experiences (Bolam, Murphy, and Gleeson 2006). Previous studies have found an association between social identity and chronic health outcomes. For example, Bowen and colleagues (2003) found that increased social identity positively predicted interest in breast cancer screening. Also, social identity and social relationships

with physicians, family, or friends, as well as belongingness, are important in improving cervical cancer screening rates (Tribe and Webb 2014). Social identity also influences clinical outcomes for members of at-risk groups. For example, Cole, Kemeny, and Taylor (1997) found that the progression of HIV was significantly faster among gay men who felt their social identity and social roles were reduced as a result of their illness. Thus it would appear that maintained social identification can play a role in the health of vulnerable populations (Haslam et al. 2009).

Measuring Appalachian Identity

A compelling yet challenging issue is that the term "Appalachian" can refer to both geographic location and a social identity. Kearns (1993) and Twigger-Ross, Bonaiuto, and Breakwell (2003) have noted that the association between health and place has long been recognized, yet not always centralized in studies. A problem also exists in that there is no broadly accepted definition of who is and who is not considered Appalachian.

Attempts to determine the prevalence of Appalachian self-identity have found that approximately one-third of Appalachian residents considered themselves to be Appalachian (Cooper, Knotts, and Livingston 2010; Obermiller 1982; Reiter et al. 2009). Individuals who self-identified as Appalachian tended to be older, religious, and more recent migrants out of Appalachia. They had lower socio-economic status, had lived in their current county for a long period of time, and had not lived in an inner-city (Cooper, Knotts, and Livingston 2010; Reiter et al. 2009).

For Appalachian residents who do not self-identify as Appalachian, one of the main sources of aversion to the identity is the connotative meaning they attach to the term. Given the overwhelmingly negative portrayals of Appalachia in popular media, it is not surprising that some individuals living in the Appalachian region do not self-identify as such, while others view themselves as part of an important and oft-maligned in-group (Cooper, Knotts, and Livingston 2010). On one hand, they realize that the identity terms are intertwined with prejudices and inaccuracies, particularly when used by outsiders. On the other hand, some individuals living in the Appalachian region recognize a common background with distinct characteristics.

To account for these nuances, researchers have used three standard techniques for identifying Appalachians: place-based, self-identification, and attribute-based. The place-based technique is straightforward and consistent with the common definition of an Appalachian: if a person is from and/or currently resides in the federally defined region, the person is considered an Appalachian. Self-identification involves people being simply

asked whether they think of themselves as Appalachian. The last technique, attribute-based, uses positive and negative characteristics commonly associated with Appalachians (Ludke and Obermiller 2012). Positive attributes can include being friendly, God-fearing, proud, law-abiding, hardworking, and family-oriented (Coyne, Demian-Popescu, and Friend 2006). Negative attributes include being physically isolated, backward, timeless, and ignorant compared to the general US population (Massey 2007).

Current Study

In the Appalachian region, several self-reported measures of social identity, including Appalachian identity, community identity, rural identity and Appalachian Regional Commission (ARC) status, should be examined to further understand their impact on health behaviors, particularly cancer CT enrollment. Behringer et al. (2007) noted the interactions between the elements of the Appalachian region and health. Residents in Appalachia report that geography isolates many small communities from each other; therefore, residents have a strong personal and social identity with place. However, their exposure to healthy lifestyle and prevention messages are minimized, and they rely on shared experiences with health care within their small rural communities in order to make health decisions (Behringer et al. 2007). A mixed-methods approach is beneficial to discover the various elements associated with this social identification and encourage an in-depth discussion of the concept of Appalachian, the social psychological processes that might be involved in social identification, and how it may relate to CT enrollment.

Purpose

The goal of the current study was to examine the self-categorization of rural Ohio Appalachian adult cancer patients as Appalachian; how ARC status and community and rural identity and health behaviors (CT enrollment) are associated with that identity; and the potential for intergroup discrimination as a result of this group identity. To explore this objective, the following research questions were posed for examination: What identification techniques (place-based, self-identification, attribute-based) are employed by rural Ohio Appalachian adults when asked the question "Do you consider yourself Appalachian?" Also, are there better ways to measure the social identity of the inhabitants of this region as it relates to CT enrollment? The results will provide new insight into the social identity of Ohio Appalachian adults by measuring Appalachian, rural, and community identification. In addition, this study provides a basis on which to question the continued use of the conventional classification of Appalachian in health research.

Methods

Participants

Qualitative and quantitative analyses were performed on self-reported data on psychosocial, behavioral, and social indicators and CT enrollment among Appalachian cancer patients. Participants were cancer patients who (1) were offered a randomized cancer CT, and (2) lived in or were treated in one of the thirty-two rural Appalachian counties in Ohio. Patients were recruited through health professionals at five Ohio cancer clinics. Depending upon the preference of the clinic, initial recruitment proceeded in two ways. The first approach was that a researcher prepared recruitment letters from their oncologists and e-mailed them to a clinic contact (i.e., CT nurse, administrative assistant), who procured the oncologists' signatures and mailed the letters to the research team. A researcher compiled the envelopes and mailed the letters to the patients to reduce the administrative burden on the clinics. Within two weeks of patients' receipt of the recruitment letters, a researcher conducted follow-up phone calls to give more information about the study and to schedule interviews for those who wanted to participate. The second approach was that a clinic contact mailed recruitment letters to potential participants from their facility. No follow-up phone calls by the research team were made to those patients. Of the eighty-four patients initially recruited for this study, forty-nine patients consented and completed the study.

Data Analysis

Quantitative Data. Data analyses were conducted in several steps. Descriptive analyses were utilized to provide overall sample characteristics. Correlation coefficients ($p \leq 0.05$) were calculated to determine the strength of the bivariate associations among rural identity, community identity, Appalachian identity, ARC status, demographic variables, and CT enrollment. A forward selection model-building procedure was then utilized to construct a multivariable logistic regression model with Appalachian self-identity as the outcome variable. Following the forward selection procedure, potential confounders and interactions between variables in the model were examined.

Qualitative Data. After interviews were completed, the audio files were uploaded to a password-protected computer and transcribed verbatim. Four members of the research team then read the interviews to familiarize themselves with the overall content. A member of the research team uploaded all transcripts to NVivo. The authors coded the transcripts using a unit of analysis that was defined as any thought (ranging from a phrase to a paragraph) pertaining to Appalachian identity. To identify initial themes,

each researcher coded three different interviews at one time (Charmaz 2006). After each coding period, researchers met to discuss the themes and refine them according to their agreed-upon significance. When new codes emerged, researchers met to discuss the ways in which the codes fit into or expanded the data. After the data were focused into prominent themes, the researchers created a final code book and collectively analyzed all previous coding according to this framework to allow for the identification of connections and relationships within each theme (Creswell 2012). Descriptive analyses were calculated to provide overall sample characteristics. Fisher's exact tests (1954) were also calculated to test the association between CT enrollment and Appalachian identity, community identity, rural identity, and ARC status.

Results

Participants

Demographic characteristics of the study participants were female (59 percent), approximately sixty years of age, white (98 percent), high school educated (37 percent), and married (86 percent). Participant characteristics are summarized in appendix 1. Ninety percent of the participants reported living in Appalachian counties, while 10 percent received medical treatment in Appalachian counties. Seventy-one percent of the participants were enrolled in a cancer CT. Lastly, less than half of those interviewed identified themselves as Appalachian. No significant associations were found between CT enrollment and Appalachian identity, community identity, rural identity, and ARC status.

Measures of Identity

The participants were asked in person and by questionnaire if they considered themselves Appalachian. From forty-nine participants who answered the written questionnaire, twenty-three (47 percent) identified themselves as Appalachian (appendix 2). The participants who identified themselves as Appalachian were not significantly different by age, gender, race, education, income, or ARC status compared to those who said they were not Appalachian.

Forty-three percent of the sample lived in the same city/town all of their lives and 69 percent were born in Appalachian counties. There were significantly higher rates of being born in Appalachian counties ($t = 2.55$, $p < 0.02$) among participants who identified as Appalachian than among those who did not identify as Appalachian. There was no significant difference in birthplace residence (lived in same city/town all their lives) between those who did or did not self-identify as Appalachian.

Participants' community identification ($M = 27.35$; $SD = 7.9$) and rural identification ($M = 22.29$; $SD = 6.71$) were high. There were significantly higher rates of community identification ($t = -2.29$, $p < 0.05$) and rural identification ($t = -3.34$, $p < 0.01$) among participants who identified as Appalachian than among those who did not identify as Appalachian.

Bivariate Correlations

Greater rural identity was associated with Appalachian self-identification ($r = 0.44$, $p < 0.01$), and higher community identification ($r = 0.44$, $p < 0.01$). Appalachian identity was also associated with ARC status ($r = 0.32$, $p < 0.05$). Lastly, greater community identity was associated with birthplace residence ($r = 0.35$, $p < 0.05$) (appendix 3).

Logistic Regression

Significant predictors of Appalachian identity were calculated after controlling for important covariates: age, sex, race, education, marital status, and income (step 1) and ARC status, birthplace residence, and birth county (step 2). The overall regression model was significant ($R^2 = 0.45$, $p < 0.01$). Analyses showed that, after controlling for demographic variables, rural identification ($B = 0.14$, $p < 0.05$) and birth county ($B = 1.14$, $p < 0.05$) were significant predictors of Appalachian identity.

Participant Interviews on Appalachian Identity

Using the classification system for measuring Appalachian identity (Ludke et al. 2010), the participants responded to the question "Do you consider yourself Appalachian?" in the following ways.

Place-Based. One major theme when asked "Do you consider yourself Appalachian?" was a response related to an individual's proximity to Appalachia as a place, not as an identity. It is important to note that participants interpreted the word "Appalachian" to mean "place," or justified their answer based on place. One participant, when asked about her identity, said: "Not really because I'm not that close to Appalachia." Another participant echoed this idea of referring to place as Appalachian identity by saying: "[T]hat's what we're considered where we live." Responses also suggested distancing themselves from the term "Appalachian" although they recognized that they live in Appalachia. One woman stated: "I don't live there. . . . [W]e are because I mean technically, geographically we are." Another woman similarly said: "I say I don't consider myself but I know we are in there." Both women know they live in the area designated as Appalachian; however, they don't consider themselves or their immediate neighborhood as Appalachian.

Several participants took the term "Appalachian" to refer to the mountain range, country, or rural areas. One participant used place, specifically rural areas, to self-identify herself as Appalachian by saying: "Yeah no, I mean, you know—I guess I'm more Appalachian than a city-slicker, and when I use that word I use it loosely. But I've never lived in a city. Uh, I always liked the country. So yeah, I guess you could say [I am Appalachian]." One woman delineated between two landforms to describe why she was not Appalachian, saying: "I don't live in the mountain range or anything. I live in the country." This comment suggests her perception that Appalachian individuals only live in the mountains. For another woman, "Appalachian" was an unfamiliar term, and when asked, she responded by saying: "I've heard of the Appalachian Mountains."

Another female participant alluded to how others classify her by place, stating: "I don't know [if I am Appalachian]; I lived in Pennsylvania but I don't know if I'd be called an Appalachian or not or an Aborigine." This term "Aborigine" is particularly interesting because, in this context, this person is referring to being native to the region. However, the term "Aborigine" has connotations of being wild and/or a native Australian, in its earliest form, when in reality, her family has Eastern European origins.

Previous residence in other areas outside of Appalachia was also a source of place-based reasoning regarding Appalachian self-identification. Although the majority of the sample was born and lived in Appalachia, individuals who relocated to the area recognized the difference in location in discussing their self-identification. One participant said: "Thank God we've lived other places. [My wife] gives me hell all—she's from Pennsylvania and she just, she says, 'You've doomed us.' And I have. It's a whole different culture." Here, the participant feels negatively toward the region and maintains a sense of positive group distinctiveness outside Appalachia. The participant's choice of the word "doom" suggests he and his wife feel trapped, and they are distancing themselves from the insularity that comes from living in one place their whole lives.

Lastly, using place as self-identification at a macro level was discussed. One individual referred to the consequential context (i.e., financial and policy advantages) of being considered Appalachian: "I know, ya know, this is Appalachia here 'cause I, uh, back when I was mayor, it was always a big advantage for us getting grants because we are technically in Appalachia, but I never think of myself as that." However, this participant's description of self attempted to distinguish between self-identification as Appalachian and the region where he resides.

Attribute-Based. As evidenced in the quantitative results, there was some reluctance and social stereotyping by participants to identify themselves as

Appalachian in the in-depth participant interviews. Participant reactions often included laughter and hesitation in answering the question "Do you consider yourself to be Appalachian?" Participants used phrases such as "I suppose," "I guess," "to a certain extent," and "I think so." Several participants laughed at the notion of being considered Appalachian, and often mentioned the negative connotations and stereotypes about an Appalachian identity. As expressed by one participant, "I suppose [laughs]. I still have most of my teeth." One woman stated: "I don't [consider myself Appalachian]. But I sound like it! [laughs]." Another participant used words with negative connotations to describe his town calling it "a little hill jack place." Some also compared their current residence to other Appalachian counties as a way to distance themselves from the term "Appalachian": "No we're not, that's Ross County! [laughs]." One particular individual explained the intricacies of what may classify an individual as Appalachian by saying, "I consider myself to be a part of the Appalachian region. . . . No, I'm not Appalachian. I wasn't born here. I don't have the ethnic or cultural attitudes that go with being, you know, born Appalachian."

Uncertainty. Another theme that emerged was the uncertainty about what the word "Appalachian" meant, and whether they perceived it as a place, self-identification, and/or attribute. Several participants asked what Appalachian meant, and for a description. Other participants, when asked the question, did not provide a response because they had "never really considered it." There were also misconceptions about the word "Appalachian" itself. As told by a participant's spouse: "Yep, you're Appalachian. . . . I mean that's not an appaloosa; it's not a horse." This comment demonstrates how the term, Appalachian, may be a generic template to characterize this group, often misunderstood and a source of humor, rather than a common characterization among Ohio Appalachian adults.

Discussion

The goal of the current study was to examine the appropriateness of the self-concept of Ohio Appalachian adults with cancer as Appalachian, the context associated with that identity and its association with community identification, rural identity, ARC status, demographic data, and CT enrollment. Results indicate that approximately half of the sample from Ohio Appalachia considered themselves Appalachian, which is higher than reported in previous studies (Obermiller 1982; Reiter et al. 2009). The observed increase may be attributed to several factors. First, this study's data were collected from current Appalachian residents or people who chose to have their cancer treated in Appalachia, not people who used to reside in Appalachia. Also, there is an increased use of the term "Appalachian" in

the names of agencies, initiatives, ARC expansions, and businesses, which may motivate residents to self-identify as Appalachian (Abramson and Haskell 2006). Finally, this result coincides with Stone's argument that identity is a public process that involves both identity announcement (by the individual) and identity placement (by others who endorse the claimed identity) (Stone 1981). Some participants may have felt supported (placed) in their endorsement of being Appalachian because the study description and informed consent included the word "Appalachian," which may have made the term more salient to them prior to the interview.

As measured by Ludke et al. (2010), endorsement and reasoning behind Appalachian identity has mixed results. Although the question followed the self-identification technique for assessing Appalachian identity, the participants often referred to a place and their proximity to mountain ranges, country, and counties to describe their own identity. Many participants endorsed their residence within Appalachia but not their own identity. Interestingly, participants often described their identity in a reluctant, defensive manner using responses such as "I guess so" or "I suppose." Here, it appears that some of the participants are concerned that their identity announcement may result in judgment from the interviewer.

Another interesting result from the interviews was the use of social stereotyping to describe other individuals in the area. Some participants engaged in defensive othering, distancing themselves from perceived inferior individuals and reinforcing their devalued identity in the process (Schwalbe et al. 2000). Further, participants often attempted to identify with the normative values prescribed by the outsiders (in this case, the study researchers) for the subordinated group members (Appalachians). The notion of interpellation, in this case, how Appalachian residents are addressed by others, especially powerful outsiders, may be likely to affect how those residents see themselves and how they respond. This social dynamic of a perceived outsider interviewer asking the participants about a disparate group that is often regarded in a negative manner may be a large part of participant resistance to identify themselves as Appalachian. Furthermore, these findings may allude to the lack of an Appalachian identity used within those social groups. Appalachia itself is a federally defined term, from an outside entity. Based on our results, individuals residing in Appalachian areas may not identify with that classification. Furthermore, participants seemed to be strategic in the endorsement and self-identification of the term "Appalachian." The only instance when Appalachian identity was described as salient and relevant was in the context of eligibility for federal funding, not personal identity. Here, the motivation for self-identifying as Appalachian was financial, not social.

An unexpected result is the lack of description regarding Appalachian identity by the participants. Apparently, among our sample, the term is not widely accepted, used, and endorsed, and has no social reality. This result does not support Inglehart's postulation regarding a shift away from local identity and toward more abstract or global identity (1977). In addition, our results are a possible reflection of normative theory by the researchers in that they present a prescription of what ought to be (e.g., the term "Appalachian") rather than what is. Researchers and government agencies may want to reconsider using only the depersonalized term "Appalachian" to describe people living in Appalachia, due to its lackluster endorsement by people who reside in that region, and the common confusion and negative connotation with that term. The term also promotes the notion of "othering," and increases the perception that individuals living in that area are viewed as "others." Another area to consider is the identity salience our sample uses to describe themselves, such as midwesterners and Americans. Finally, participatory group methods (e.g., Participatory Rural Appraisal methods such as community mapping to help reduce "othering") represent individuals and their spatial knowledge, and empower a sense of community (Chambers 1994).

Although we did not find significant associations between CT enrollment and community identification, rural identity, ARC status, and demographic data, previous research has concluded that self-identity and health behaviors are highly correlated (Oyserman, Fryberg, and Yoder 2007; Warren et al. 2012). However, few studies have been specifically tailored to rural populations or have adapted existing protocols to include the rural experience (see Colby et al. 2013; Palmer-Wackerly et al. 2014, for notable exceptions). Researchers should recognize this potential association and tailor their health interventions to include both in-group and broader societal identities to reduce potential stereotype threat and increase positive health behaviors. As evidenced in this study, there is no single definition of what the term "Appalachian" means among individuals who live within the Appalachia region. Therefore, a challenge exists for health researchers to utilize patterns of communication specific to Appalachia that will elicit an effective response from this community. This public health messaging should begin with acknowledging and understanding the social identity of this Appalachian region.

As with all research, there are limitations of the current study that should be noted. First, the findings of the current study are based on a white, largely rural, Northern and North Central Appalachian population and transferability to other groups in the Appalachian region (i.e., Southern, Southern Central, Central) is likely limited. Furthermore, the data were collected by

self-report and not verified by census records resulting in potential reporting bias such as social desirability. Social desirability responding in this small sample may have yielded higher reported negative perceptions of Appalachian identity. Lastly, the interviewers were not from the same community as the participants, which could heighten out-group homogeneity and bias.

Appalachian self-identification is central to understanding and addressing the health and well-being of Appalachians. The results of the study suggest that Appalachian self-identity is varied. In addition, additional research should expand past the census-designated ethnicities, federally designated regions in the United States, and outsider identity placement to characterize groups of people to new, less ethnocentric approaches to measure identity. Future studies would greatly benefit from a culturally grounded approach using narratives and community-based participatory methods to explore how residents of Appalachian communities define their community and self-identification in order to improve health in the region.

Procedures

The current study was approved by the university's Institutional Review Board. Interviews were in-depth and semi-structured to ensure a discussion of similar but also unique participant responses. Before interviewing study participants, a member of the research team was trained in interviewing techniques. To ensure the clarity and sensitivity of the interview questions, the research team member conducted two practice interviews with medical professionals who work extensively in Appalachia. The interview guide was then revised to reflect their suggestions.

Participant interviews were conducted face-to-face at a location of the participant's preference (e.g., participant's home, coffee shop, hospital waiting or treatment room) and ranged from around thirty minutes to three hours in length. Whenever possible, interviews were conducted in a private location; however, during four interviews, other members of the family were present. Following the interview, the researcher asked a series of demographic questions and asked participants to complete a survey with scales measuring community and rural identity and Appalachian identity (yes/no). When the survey was completed, participants were given a $30 gift card to thank them for their participation.

Measures

Appalachian Identity

Appalachian self-identity was measured both in the questionnaire and interview by the question, "Do you consider yourself to be Appalachian?"

Possible response choices were "Yes," "No," or "Don't know," which were dichotomized into "Yes" or "No" for analysis, with "Don't know" coded as a "No."

Community Identity

Community identity is a six-item measure listed in appendix 2 that assesses community belonging, personal history, and familiarity. Responses to each item are on a 7-point Likert scale (0 = "Completely Disagree" to 6 = "Completely Agree"), with higher scores indicating higher community identity. Total scores on this measure range from 0–36. The community identity measure has high internal validity (Cronbach's $\alpha = 0.88$).

Rural Identity

Rural identity is a six-item measure listed in appendix 2 that assesses sense of belonging, and group attitudes. Responses to each item are on a 7-point Likert scale (0 = "Not at All" to 6 = "Extremely") with higher scores indicating higher rural identity. Total scores on this measure range from 0–36. The community identity measure has high internal validity (Cronbach's $\alpha = 0.79$).

ARC Status

Participants reported their county of residence, for which three designations of economic status from the ARC were used: (1) distressed (at least twice the national poverty rate, income 67 percent of national average, or three-year unemployment that is twice the national average); (2) at-risk (meets two of the following: three-year unemployment rate that is 125 percent above the national average, income 67 percent or less of national average, or poverty rate of 125 percent or more of the national average); and (3) transitional (counties are worse than the national average on at least one of the three indicators).

Demographic Characteristics

Participants provided information about their age, gender, race, ethnicity, primary language, marital status, educational level, housing status, number of dependents, household size, employment status, household income, and health insurance. Other measures included birth county (Appalachian or not), years spent in county of residence, birthplace residence (lived in same city/town all life), and CT enrollment (yes or no).

Conflict-of-Interest Statement

The authors declare that they have no conflict of interest.

Appendix 1: Participant Characteristics (n = 49)[a]

	N (%)
Age, *M* (*SD*)	59.9 (11.6)
Gender	
Female	29 (59.2)
Race	
White	48 (97.9)
Asian	1 (2.1)
Marital status	
Married	42 (85.7)
Single	1 (2.0)
Divorced/separated/widowed	6 (12.2)
Education	
8th grade or less	3 (6.1)
High school	1 (38.8)
Some college/associate degree	17 (34.7)
College graduate/graduate degree	9 (18.4)
Employment	
Full-time	16 (32.7)
Part-time	5 (10.2)
Retired	13 (26.5)
Unemployed	7 (14.3)
Disabled	8 (16.3)
Household income	
≤ $10,000–$19,000	6 (12.5)
$20,000–$39,000	12 (25.0)
$40,000–$59,999	10 (20.8)
$60,000+	13 (27.1)
ARC status	
Transitional	25 (51.0)
At risk	8 (16.3)
Distressed	11 (22.4)
Does not apply	5 (10.2)
Health insurance	
None	3 (6.1)
Medicare	14 (28.6)
Medicaid	5 (10.2)
Private insurance	26 (53.1)
Clinical trial enrollment	
Yes	35 (71.4)

[a]Some variables do not total 49 because of missing data

Appendix 2: Measures of Appalachian Identity

Measures	*N* (%) or *M* (*SD*)
Lived in same city/town all your life	
Yes	24 (49.0)
Birth county	
This county	21 (42.9)
Other Appalachian county (Ohio/other state)	13 (26.5)
Non-Appalachian county	10 (20.4)
Non-Appalachian state	3 (6.1)
Other country	2 (4.1)
Appalachian identity	
No	26 (53.1)
Yes	23 (46.9)
Community identity	
I want to live in my community for a long time.	5.31 (1.33)
Lots of things in my community remind me of my own past.	4.55 (1.76)
I cannot imagine moving someplace else because I would give up too much of myself.	3.83 (2.04)
I know most of the people who live around me.	4.57 (1.79)
Most of the people in my community know me.	4.51 (1.67)
I feel a sense of connection with other people in my community.	4.57 (1.65)
Rural identity	
How much do you see yourself belonging to a rural community?	4.41 (1.54)
How much is being from a rural community a part of who you are?	4.57 (1.65)
How much do you identify with people who live in rural communities?	4.29 (1.53)
To what extent do you feel your general attitudes and opinions are similar to people who live in rural communities?	3.80 (1.62)
To what extent do you feel that you are typical of people who live in rural communities?	3.83 (1.64)
To what extent do you consider yourself a "city" person?	1.82 (1.64)

Appendix 3: Correlation Table for Demographic Characteristics, Appalachian Identity, ARC Status, Community Identity, and Rural Identity ($N = 49$)

Variables	1	2	3	4	5	6	7	8	9	10	11	12	13
1. Age	—												
2. Gender	–0.18	—											
3. Income	–0.05	–0.25	—										
4. Education	–0.10	0.02	0.27	—									
5. Marital status	0.29*	0.27	–0.30*	–0.01	—								
6. Health insurance	–0.16	–0.12	0.45***	0.39**	–0.27	—							
7. ARC status	–0.05	–0.04	0.02	–0.03	–0.01	–0.12	—						
8. Birthplace residence	–0.30*	–0.10	0.02	–0.14	–0.32*	–0.02	0.16	—					
9. Birth county	0.15	0.10	0.33*	0.19	–0.07	0.20	0.06	–0.14	—				
10. Clinical trial enrollment	–0.11	–0.07	0.22	–0.17	0.12	–0.05	–0.001	0.01	–0.01	—			
10. App ID	0.05	–0.13	–0.06	–0.03	–0.15	0.10	0.32*	0.22	–0.15	0.01	—		
11. Community ID	–0.17	–0.01	0.18	0.04	–0.21	0.08	0.21	0.35	0.04	0.04	0.27	—	
12. Rural ID	–0.20	0.13	–0.22	–0.13	–0.19	–0.16	0.28	0.26	–0.18	–0.09	0.44**	0.44**	—

*$p < 0.05$
**$p < 0.01$
***$p < 0.001$
App ID = Appalachian Identity

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