Published in final edited form as:

J Career Dev. 2019 December ; 46(6): 637–650. doi:10.1177/0894845319827652.

Building on Strengths While Addressing Barriers: Career Interventions in Rural Appalachian Communities

Melinda M. Gibbons,

University of Tennessee, Knoxville

Emily Brown,

University of Missouri - St. Louis

Stephanie Daniels,

University of Tennessee, Knoxville

Pamela Rosecrance,

University of Tennessee, Knoxville

Erin Hardin,

University of Tennessee, Knoxville

Isabel Farrell

Wake Forest University

Abstract

This article describes a model for developing culturally-sensitive career education programs, framed from an ecological contextual understanding (Bronfenbrenner, 1979). This framework allows career practitioners to build on cultural strengths and values to meet the career education needs of diverse communities. To illustrate the application of this model, we describe the cultural context of rural Appalachia and offer theoretically-framed ideas of how to meet the population's career education needs.

According to Osborne (2013), "career education is a systematic educational program designed to foster individual career development" (p. 8). Traditional career education strategies focus on facilitating career learning experiences to meet the needs of the individual client. Herr (2001) noted that career education emerged from North American and European practices and models that focus primarily on individual needs. From these models, scholars identified five critical components for successful career interventions: 1) documenting written goals, 2) offering world-of-work information both in and out of session, 3) including written comparisons of career options, 4) interpreting individual assessments, and 5) providing role models (Brown, Copeland, Costello, Erkanli, & Worthman, 2009). We argue that the cultural values of some populations require career practitioners to adapt these critical components for effective career education to better meet the needs of all students, communities, and contexts.

Author Note: Correspondence concerning this article should be addressed to Melinda M. Gibbons, Educational Psychology and Counseling, University of Tennessee, 441 Claxton Complex, Knoxville, TN 37996. mgibbon2@utk.edu.

One group in the U.S. that would benefit from a culturally sensitive adaptation is people living in rural Appalachia. The Appalachian region encompasses 205,000 square miles stretching from northern Mississippi to southern New York and includes over 25 million people (Appalachian Regional Commission [ARC], 2016). Forty-two percent of the region is considered rural and 22.5% of inhabitants live in poverty (ARC, 2016). Considered an individualistic subcollectivist culture, Appalachians embrace collectivist values even while living in an American-based individualistic society (Gore, Wilburn, Treadway, & Plaut, 2011). These values include community connection, responsibility to family, deep-seated connection to place, and strong religious ties (Gore et al., 2011), as well as independence and a sense of self-reliance (Tang & Russ, 2007). Many Appalachians also experience challenges, such as low educational attainment and unemployment. Only 22.6% of Appalachians hold a bachelor's degree or higher, compared to 29.8% in the U.S. overall (Pollard & Jacobsen, 2017). In rural Appalachia, the number is even lower, with only 15.6% of adults earning at least a bachelor's degree and 21% not even completing high school (Pollard & Jacobsen, 2017). These statistics, combined with the high rates of poverty described above, indicate a strong need for career education in rural Appalachian communities.

We assert that when working with cultural groups such as rural Appalachians, career counselors and educators must filter career needs through an understanding of community strengths and values before considering how to address individual needs. Today, career education must also focus on flexibility in the face of the ever changing world of work and consider the individual within context of their community (Guichard, 2001). The purpose of this manuscript is to propose a model that is framed from an ecological contextual understanding (Bronfenbrenner, 1979) as a way to approach culturally sensitive career education that builds on cultural strengths and values. We also provide an overview of the cultural context of rural Appalachia and offer theory-framed ideas of how to meet the population's career education needs.

Theoretical Framework for Understanding Career Education Needs

In their meta-analysis of cultural adaptations for counseling interventions, Nagayama Hall, Ibarki, Huang, Marti, and Stice (2016) found that cultural sensitivity specific to client background significantly improved outcomes for diverse clients. Importantly, they noted that interventions developed for particular cultural groups were the most culturally responsive, but that few studies actually employed this approach. Nagayama Hall et al. (2016) recommended that clinicians consider both strengths and challenges of a cultural group and let these directly inform the design of interventions. Although culture is not static, we believe that research plus personal involvement can provide a strong foundation for understanding a cultural group. Consistent with recent calls to operationalize theoretical constructs through culturally-informed lenses (Hardin, Robitschek, Flores, Navarro, & Ashton, 2014), we propose framing cultural understanding through an ecological systems perspective and then using that knowledge to create culturally-informed theory-based interventions rather than creating a substantively new theoretical approach. To create culturally sensitive career education interventions for children, adolescents, and adults, career needs should be filtered through a cultural lens by identifying strengths and cultural

values, and then considered from the various levels of Bronfenbrenner's model, starting from the exosystem and funneling to the microsystem (the individual). Actual career education activities can be based in the most appropriate and relevant career theory; in our case, we used Social Cognitive Career Theory (Lent, Brown, & Hackett, 1994). The result is a culturally-informed career education model.

Bronfenbrenner's Ecological Systems

Bronfenbrenner's (1979) ecological systems theory details the complexities of the many systems that people interact with on a regular basis. Generally, this perspective suggests that development occurs as a result of interactions between individuals and their environment, with longer, more intensive interactions being more influential. Individuals in Appalachia, just like individuals everywhere, actively interact with their setting, or microsystem, which in this case likely includes family, school, peers, and church. Bronfenbrenner's (1979) model posits that connections among these entities, known as the mesosystem, directly affect individuals. These interactions might include relationships between an individual and peers or interactions between schools and parents. Individual development is indirectly affected by social settings and institutions within the exosystem, such as parental workplace policies, the media, and community health resources. Finally, development is influenced by the macrosystem, which includes broader societal and cultural values.

To apply this model, career education needs (challenges) are identified, but before interventions are developed, career educators should understand the cultural strengths and values of their targeted group and consider how these are affected by the exo-, meso-, and micro-systems, creating a better understanding of cultural context. Only then, interventions are designed using an empirically-based career education model. The result follows (Nagayama Hall et al.'s 2016) suggestions for culturally sensitive psychological interventions. To help demonstrate the model, thorough descriptions of rural Appalachia and the career education needs of many of its residents, along with resulting strategies, are presented.

Rural Appalachia

The Appalachian Region comprises 420 counties in the eastern United States, with 107 counties categorized as rural, meaning they do not have a metro (large urban city) area nor are they bordering any counties with metro areas (ARC, 2016). There are 25 million people living in the Appalachian Region, with 2.5 million living in very rural areas and 6 million living in non-metro (but adjacent to metro) areas (Pollard & Jacobson, 2017). Regional population growth is slower than the national average at only 2% (Pollard & Jacobson, 2017). Population density is low overall, with two-thirds of the counties in Appalachia having 50,000 people or less (Pollard & Jacobson, 2017). The majority (82%) of people living in the Appalachian Region as a whole are White (non-Hispanic), and a high percentage (85%) of people in rural Appalachia are White.

Overall Community Strengths and Challenges

Like any cultural group, rural Appalachians demonstrate both strengths and challenges as a community. Within a discussion of Appalachian communities and culture is the danger of further stereotyping or providing a bleak picture of the problems within these communities. Rieder Bennett (2008) noted pervasive stereotypes of rural Appalachians include being lazy, uneducated, and impossible to understand due to the thick accents. These stereotypes often result in discrimination and exploitation in the popular media. Although the idea of a specific Appalachian culture is contested by some scholars (see Obermiller & Maloney, 2016), the concept of shared heritage and identity within Appalachian communities has ample support. Understanding this cultural group can help inform career education programs by building on strengths while acknowledging regional and individual challenges. To provide culturally appropriate services, Keefe (2005) recommended that practitioners working with Appalachian people must respect local knowledge, include diverse voices in the community when initiating action, collaborate with local communities and individuals, and empower local people. These recommendations assume an appreciation of Appalachian culture and rejection of discriminatory stereotypes, which are important when providing career education in any underserved community.

Core values.—Keefe (2005) identified a list of core values associated with Appalachian culture, including egalitarianism, independence and individualism, personalism, familism, a religious worldview, neighborliness, love of the land, and the avoidance of conflict. Appalachians tend to recognize people as equal in status and attempt to avoid being perceived as better than others. Keefe and Greene (2005) described the family as “the fundamental social institution in Appalachia” (p. 301), and the family unit includes the nuclear and extended family sharing blood kinship.

As family is a key influence in career development (Whiston & Keller, 2004), this close connection demonstrated by many rural Appalachians can serve as a strength. The family group provides a basis for socialization; combined with a history of discrimination and exploitation, Appalachians may not be as comfortable with strangers and non-family members. Faith in God is a core value for most Appalachians, even if they do not attend church. Many Appalachians also have a strong sense of place. The mountains are home for native Appalachians, and preserving the land is a shared responsibility with past and future generations (Keller & Helton, 2010). The music and folk art of Appalachia also demonstrates creativity and appreciation for beauty found in many Appalachian communities (Keller & Helton, 2010). These values collectively add to the cultural identity of Appalachians.

Health challenges.—Career educators need an awareness and understanding of contextual barriers before working with rural Appalachians. Some of the most common challenges for these communities relate to health issues. Even with recent improvements, the mortality rate is 32% higher in the Appalachian region than outside of the region (Meit, Hefferman, Tanenbaum, & Hoffmann, 2017). Within the Appalachian region, rural counties have higher mortality rates than metro counties for heart disease, cancer, chronic obstructive pulmonary disease (COPD), stroke, and diabetes. Furthermore, the overall potential life lost

is 40% higher in rural Appalachia compared to metro counties (PDA, Inc. & The Cecil G. Sheps Center for Health Services Research [PDA, Inc.], 2017). At the microsystem level, physical health directly and negatively influences Appalachian residents. They are also affected at the exosystem level as poor health outcomes affect community resources, workplace policies, and overall life perspective.

In addition to physical health disparities, differences also exist in mental health outcomes. For example, depression rates are higher than the national average for those living in Appalachia, with those in rural Appalachia reporting 10% more mentally unhealthy days than metro Appalachians (PDA, Inc., 2017). The suicide rate is 15% higher and alcohol disease mortality rate is 13% higher in rural Appalachian counties than metro counties (Meit et al., 2017). In addition, death from overdose is 65% higher in Appalachia compared with the rest of the U.S. (Meit et al., 2017). The rates of people receiving government assistance for disability are also higher in Appalachia (7.3% compared to 5.1% nationally), with 11.2% of rural Appalachians receiving disability benefits (PDA, Inc., 2017). Mental health issues likely compound the challenges facing Appalachian residents. On a microsystem level, addiction, depression, or disability status may directly affect those in career education programming. At a meso- and exo-system level, mental health issues may interfere with education and employment opportunities, creating barriers to successful career outcomes.

Career opportunity issues.—The changing world of work has affected rural Appalachians in unique ways. Rural Appalachia has a rich history of coal-mining, steel production and logging. For much of its history, the primary employers in the region were connected to these natural resources, but globalization of the world of work, diminishing materials, and technological advances have greatly diminished available jobs in these fields (Center for Regional Economic Competitiveness and West Virginia University, 2015). For example, coal production in Appalachia has decreased 45% in the last decade, and 82% of recent job losses were related to the closure or reduction of coal mines, highlighting the need to diversify beyond coal as a primary employer (Hodge, 2016). Reduction of these career options has increased the need for postsecondary education and skills training for both those entering the workforce and those displaced by the closures and workforce reductions, affecting rural Appalachians at the micro-, meso-, and exo-system levels.

As of 2015, rural Appalachia had higher unemployment rates and lower education levels than metro Appalachian communities or the U.S. more broadly (Pollard & Jacobson, 2017). In addition, income in the Appalachian Region is much lower than in other parts of the United States, leaving many residents struggling financially day-to-day. These exo- and macro-system influences affect career education needs. While the national income per capita was \$28,930 in 2015, it was \$19,759 in rural Appalachia (Pollard & Jacobsen, 2017). Appalachians also have low population mobility (Pollard & Jacobsen, 2017). Collectively these experiences may create barriers to education and career aspirations and attainment.

Career Education Needs

The cultural context of Appalachia creates unique career education needs. A multitude of ecological factors impact career exploration and attainment. Specifically, Appalachian

students need opportunities to explore a wide range of careers and interests, interact with appropriate career role models, and obtain accurate facts about postsecondary opportunities. This understanding becomes the basis for a theory-driven approach to career education; in our own work, we use SCCT as the theory that informed our actual career education activities once we understood the ecologically-based context of our population.

Career exploration.—In Appalachia, factors such as strong family connections, poverty, and isolation limit career exploration and attainment. Although the family can be seen as a primary strength for this cultural group, it has an impact on career interests and decisions (Brown et al., 2009; Tang & Russ, 2007). The family may impose values (e.g., importance of blue collar work), beliefs (e.g., the family is more important than the individual), and norms (traditional gender norms) on youth, which often prevent Appalachians from exploring and pursuing certain careers (Rieder Bennett, 2008; Russ, 2010; Tang & Russ, 2007). Rieder Bennett (2008) suggested that Appalachians may not explore careers that are perceived to go against family values. Appalachians typically maintain strict interest in gender-stereotyped career options and often seek to follow in their family's footsteps to ensure their chosen career matches family expectations (Tang & Russ, 2007). Furthermore, Appalachians often prioritize the needs of the family (Protivnak, Pusateri, Paylo, & Choi, 2017) over individual goals when making career choices (Rieder Bennett, 2008). The need to maintain family values, combined with lack of information about other career options, may restrict career attainment if Appalachians do not explore the full range of options. Thus, educational settings can play an important role by providing Appalachians with exposure to a wider range of career options than they might otherwise get, particularly emerging career opportunities that do align with cultural and family values.

Even in adulthood, rural adults may experience additional career development challenges. Olson (2016) interviewed rural first-generation college graduates and learned they struggled to understand new work environments different from those experienced by their families. They believed their post-college lives differed from the models they saw growing up and felt they did not fit in with either their childhood or work communities (Olson, 2016). Additionally, Manoogian, Jurich, Sano, and Ko (2015) interviewed rural Appalachian mothers with low incomes and low educational attainment about the conflicting roles of motherhood and work. Most expressed a belief that they should stay home with their children and demonstrated strong traditional views about gender roles and parenting, even when faced with lack of funds for food or bills.

Additionally, geographic isolation and challenges with infrastructure development in Appalachia contribute to limited career exploration and attainment. Some communities still lack basic infrastructure such as roads, water, and sewer systems (Pollard & Jacobsen, 2017), preventing easy access to neighboring communities with educational facilities. Isolation decreases exposure to the full range of possible careers (Boynton, Carrico, Paretti, & Matusovich, 2013), which in turn decreases learning opportunities (Rieder Bennett, 2008) and makes it more difficult for Appalachians to envision careers (Tang & Russ, 2007). Isolation further exacerbates the lack of exposure. Not only are many Appalachians not exploring some careers due to family values, but they are also unaware that some careers

exist. Thus, there is a need for educators to expose Appalachian residents to careers with which they may not be familiar, both within and outside the region.

Role models.—Limited exposure to careers due to lower educational attainment and limited job opportunities in the region decreases access to career role models (Boynton et al., 2013). Research demonstrates the significant, positive influence that family and community members have on career plans for rural Appalachian teens (Carrico, Matusovich, & Paretti, 2017). Given the many job losses rural Appalachia has endured in recent years, new community-based models and mentors may be needed to demonstrate new career options. Boynton et al. (2013) suggested that lacking role models limits learning experiences and prevents rural Appalachians from envisioning certain career pathways. Because the lack of role models reduces the opportunity for vicarious learning, an important source of self-efficacy (Bandura, 1986), Appalachians may have limited desire to pursue underexposed careers. Ali and Saunders (2009) found low self-efficacy and outcome expectations for a certain career are associated with reduced career aspirations, and it is unlikely for students to have a positive outcome expectation if there are no opportunities for vicarious learning (Rieder Bennett, 2008). Thus, increasing access to appropriate career role models is needed to increase opportunities for vicarious learning. If students can learn through experience, self-efficacy and outcome expectations may be increased, which in turn would be associated with an increase in career aspirations.

Inaccurate information.—Lastly, Appalachian residents may also have underdeveloped career interests and decreased career attainment because they receive inaccurate facts about life after high school. Ali and Saunders (2009) suggested that Appalachians often lack the information they need to advance in careers. Inaccurate information may come from direct interactions with family and peers or indirectly from the media or community members. As a result, many Appalachians enter the workforce upon high school graduation. Most of them believe they will make enough money to support themselves (Chenoweth & Galliher, 2004). Students are sometimes dissuaded from pursuing postsecondary education due to the cost of college and the desire to make an immediate income after high school (Ali & Saunders, 2009). However, students often do not realize that the low wage jobs obtained do not offer education or advancement opportunities (Ali & McWhirter, 2006). Students are not educated on the consequences of taking low-wage, manual labor jobs and are not forced to consider their long-term future. Thus, there is a need to educate students about postsecondary opportunities. Students need accurate facts about salary, benefits, and job sustainability after graduation.

Career Education Strategies

In designing culturally sensitive career education activities for rural Appalachians, educators must first immerse themselves in understanding the community and its values. A thorough literature review and connecting with scholars who specialize in rural Appalachian culture can be helpful in beginning to understand the unique qualities of the population. Keeping ecological and cultural context central provides a way to best meet career education needs. The following section offers ideas on next steps for creating career education programming based on a thorough understanding of the community's strengths, values, and challenges, as

understood from an ecological context. As a reminder, some of the strengths of the Appalachian community include: family connections, neighborliness, egalitarianism, independence combined with interdependence, community influence and involvement, localism, and a strong work ethic. We offer strategies for working with meso- and exo-system partners, such as community stakeholders, schools, and families, to build on community strengths and provide culturally relevant career education interventions. Suggestions come primarily from our own career education work with rural Appalachians while also being informed by prior research.

Our Programs

Grounded in our commitment to cultural sensitivity and reflexive practice, we have provided career education and support programming for rural Appalachians in a variety of ways over the past four years. With the support of a Science Education Partnership Award (SEPA) from the National Institutes of Health (NIH), we sponsor a high school intervention program that provides a six hour STEM career and postsecondary awareness curriculum for 10th grade students along with various supplementary opportunities such as parent meetings, a semester-long leadership training opportunity, and a summer camp held on a college campus (see Gibbons, Hardin, Taylor, Brown, & Graham, in press). With the support of a grant from the National Science Foundation (NSF), we also offer a four-year program that provides rural Appalachian college students majoring in STEM with financial and college adjustment support. It includes ongoing research opportunities, structured mentoring, and concrete information about career and college success delivered through three sequential courses. Lastly, with support from a small grant from the Appalachian Regional Commission (ARC), we offered a community-based program focused on career advising services. Through this, we also provided train-the-trainer workshops for local community stakeholders on career education so they can then provide career services to others. All of these programs have helped us add to our empirically-based knowledge of rural Appalachia and taught us what works -- and what does not -- related to career education services in rural Appalachia.

Our programs provide diverse career education experiences, but all are based in SCCT (Lent, Brown, & Hackett, 1994). Although SCCT has strong empirical support and demonstrates some cultural sensitivity, it lacks explicit attention to issues such as collectivistic beliefs, acculturation levels, and the effects of culture on contextual variables (Leong & Gupta, 2008). Therefore, we used the ecological model to more fully understand and include the unique cultural aspects of rural Appalachia and then created career education interventions that were grounded in SCCT. For example, our high school-focused program includes activities such as personal strengths exploration, potential barriers to postsecondary education identification, and college-specific terms descriptions. In each case, the activity was designed to address a specific component of SCCT such as perceived barriers, support systems, or self-efficacy beliefs. Similarly, our college-based program includes programming such as providing individual meetings with students and an academic mentor and creating a living-learning community so they can regularly interact with other students who may have similar life experiences. In all, program activities are ultimately designed to reduce perceived barriers, increase support, and raise college-going and career self-efficacy beliefs so that participants more successfully navigate their college and career paths.

All three programs are staffed by undergraduate and graduate students from a large, southeastern, research university. The counties that surround the university are mostly rural and Appalachian. The primary investigators of the three programs (1st and 5th authors) are not from rural Appalachia, so a highly regarded Appalachian researcher was added to the research team at the time of program development. All of the program staff is given detailed information about rural Appalachian culture before beginning site visits; in addition, formal twice yearly trainings provide further discussion about Appalachian culture. We also strive to recruit undergraduate and graduate students who are from rural Appalachia to work with our programs. Many of these students volunteer because they “wish they had a program like this at their own high school.” We have found that ongoing, open conversations are vital to the success of our programs. In some cases, this might mean reviewing our biases as they emerge while in other cases it might entail discussing regional language that someone does not understand.

Connecting with Community Stakeholders

Before beginning any career education services in rural Appalachia, several additional actions need to occur to increase the chances for program success. Rural Appalachian communities are often close-knit and distrusting of outsiders. Therefore, integration into a community takes time. This is especially true if those providing career education do not live or work in the community being served. In many cases, when services are being provided through a community-university partnership, the university is considered an outsider, even if it is part of the same community being served. In rural Appalachia, larger universities are often outside of the rural community, increasing this perceived separation between university faculty and rural Appalachia. Rather than viewing this distrust as a barrier to be overcome, career practitioners can build on community bonds and influences to forge connections.

Identifying stakeholders.—Building on the strength of community involvement and engagement, it is vital to identify all important stakeholders related to career education. For example, while a school district leader may support a program, the school-specific leader (e.g., principal) needs to support it as well. Otherwise, career educators might meet with resistance. In rural Appalachian communities, the stakeholders may not all be formal leaders, so career education facilitators should also be flexible and explore the community broadly. In our case, this partnership was achieved by taking time outside of program hours to explore the community and talk to community members in health centers, unemployment offices, and adult education programs. We spent time identifying informal community leaders to build on the strengths of community influence and localism. We learned from these conversations that there was a common source of connection and support, at least in the specific rural Appalachian communities in which we were trying to develop service: the librarians. These were the people that community members turned to for help, ranging from career guidance to tax information to navigating social services.

For K-12 career education programs, facilitators can identify the teachers who go above and beyond for their students. These teachers are already important influences in the lives of their students, and listening to and respecting them builds on the Appalachian value of egalitarianism. As part of our program evaluation, we sent feedback surveys to all teachers

who interacted with our career education intervention program. An Honors English teacher at one school responded that some of our activities were not challenging enough for her students who already planned to attend college. This feedback led us to create differentiated learning strategies to adjust the activities for students planning to pursue postsecondary education. We also thanked the teacher for her feedback, and she commented on the positive changes to our program.

Finally, word of mouth is one of the most influential ways to advertise to rural Appalachian communities. Due to the general distrust of outsiders, advertising via social media or other media channels might not be as effective. Using the people that utilize the program services and asking them for help to “spread the word” was pivotal to our community integration and building of trust.

Collaboration.—Another important component of building community connections is collaboration with those already providing career education in the community. There may be school counselors, representatives from programs such as GEAR UP or Upward Bound, career and technical education teachers, or workforce development staff already providing career education. These stakeholders can provide valuable information on the needs of the community. For example, the schools we worked with had GEAR UP program officials already providing some postsecondary planning services to high school students. We learned from these leaders about services provided, asked for perspectives on unmet local career needs, and worked to provide complementary services. Collaboration also includes flexibility and adjustment of original program planning. In our case, one of our school leaders asked us to modify our community-based program’s service hours to assist students during school hours and required the use of the designated space once a month for staff meetings. We remained flexible and open to the needs of the school leader and the community.

Building connections.—As we noted, building connections takes time. Some strategies may be helpful in promoting these connections. For example, create an advisory board comprising local stakeholders and ask them to be involved in program development. Include the identified influential community leaders, both informal and formal, and meet with them early and often. Visibly show your support in the community, especially if not a resident. For example, attend College Signing Day, serve as guest judges in a Science Fair, or set up booths at programs sponsored by the local chamber of commerce. Ask if local groups would benefit from career education programming, even if it falls outside the scope of your career education program. For example, for one of our programs, we volunteered to present to Head Start families about resume writing and interviewing skills. Collaboration is always important when introducing new programming, but it may look a bit different for rural Appalachia. By recognizing that rural Appalachian communities value independence, egalitarianism, and community involvement, building connections serves as an important tool for career education programming.

Creating Valued Services

Once programs identify and involve community stakeholders, programming that is valued by the community can be implemented. Valued services should provide career exposure, introduce role models, offer accurate career and education information, involve family and community members, and promote new learning experiences. These approaches address the identified career needs, while building on the strengths and values of rural Appalachian communities.

When working with Appalachians, career educators need to connect with cultural values. For example, loyalty to family is a core value of many Appalachian people, and as such family responsibility is valued over career or getting ahead. Therefore, leaving home for college or the military can strain both the individual and family (Maloney, 2005). Rather than viewing family influence as a possible barrier, career educators can build upon family support and the family as a source of strength (Keller & Helton, 2010). Involving the family in career goal setting and future planning may help address differences in expectations and responsibilities to family. Involving the family can also change the generational messages parents are giving their students about career and education, thereby breaking the perpetuation of this challenge. As described above, families may not prioritize postsecondary education, may want their children to stay home, or may have stereotyped gender views about career; all of these can negatively affect postsecondary and career planning.

Programs that have taken time to build successful collaborative relationships will likely experience more success in reaching out to parents. In our programs, we asked parents what they wanted from career education services for their students. By placing them in an expert role, we hoped to create a more egalitarian and collaborative relationship with them. A challenge, of course, is actual parent involvement. Students from low-education families (e.g., prospective first-generation college students) report mostly emotional support for college and career versus the instrumental support provided by parents with some college education (Gibbons, Rhinehart, & Hardin, 2016; Nichols & Islas, 2016). These parents are often less likely to attend postsecondary planning meetings at school and rely on others to provide the concrete information needed about career and college. This continues to be a struggle in our own programs, especially when working with older students, so constant reaching out or finding alternative ways to provide this information may be necessary.

The combination of independence, egalitarianism, and community and family influence creates an interesting dynamic for rural Appalachians. Although Appalachians value individualism, this is different than nonconforming individuality (Keefe & Greene, 2005). The added value of egalitarianism leads Appalachians to view themselves as no different from or better than others. If promoting postsecondary attainment or a unique career decision, career educators can help Appalachian clients find ways to keep their place in the community. Linking the value of the individual to contributions to the community as a whole is one approach for this contextual consideration. Relatedly, getting an education is valued, as long as it is done with modesty and a continued focus on family and home (Keefe, 2005). Another approach is to focus on careers that can benefit the local community, which students may be more likely to explore. For example, given the physical health challenges faced by

rural Appalachians, programs might consider highlighting STEM careers. In particular, careers related to public health and medical sciences might be appealing to both career seekers and their families because such careers provide a way to return and address community needs with physical and mental health issues. Similarly, careers related to engineering might be attractive if career educators discuss how these jobs can help with infrastructure problems in the local community. Focusing on careers that potentially give back to the local community may increase the perceived value of career education services.

For college students and adults, cultural values continue to influence the perceived value of career education programming. Career education needs are broad and require flexibility from the program. Resume building, interview skills, and job searching skills are commonly used services in adult career education. However, in our case, we learned that adults in the community also needed post-retirement career education and career exploration for beginning a second career. Programs providing career services for adults also need to be aware of additional community barriers such as transportation. The community might have events already in place that provide transportation or allow individuals to carpool with friends and family. Such events include school parent nights, job fairs, summer library events (e.g., summer reading programs, back to school events, etc.), and church events (e.g., Bible study). By partnering with diverse community stakeholders, services can be provided during such events, increasing the access to individuals and the building of community partnerships and community connection.

Sometimes, career education programming might need to be reframed to connect with cultural values. In our case, we learned that our community members were more keen to help each other rather than seek “outsider” support. Therefore, we created a train-the-trainer manual and workshops to teach librarians, teachers, and others to assist with basic career education, as well as provide accurate information about career opportunities to their community members. We offered additional support if needed. In recent years, foundation and federal grants have provided funding to train rural librarians in a variety of skills such as technology and resource identification for adults (Mehra, Black, Singh, & Nolt, 2011). This approach used the strengths of the community and promoted empowerment. This idea also follows Keefe’s (2005) recommendation that professionals working with Appalachian communities should adopt the role of the “helpful neighbor” (p. 28) rather than the authoritative expert.

Specific programming recommendations.—When providing specific career interventions, social cognitive programming may need to be adjusted as well. Typical SCCT interventions use Bandura’s suggestions on how to raise self-efficacy beliefs, focused on offering positive performance opportunities, offering vicarious learning opportunities regarding career and education, increasing support systems that can provide encouragement, and attending to anxiety, often by increasing concrete knowledge about college and career (Betz, 2007). Some of these might need to be modified slightly to better meet the values and strengths of rural Appalachians. For example, when offering exposure to a career, Tang and Russ (2007) suggested that Appalachians appreciate concrete representations and thus may need to see a career in action for it to be a possibility. Simply describing a career is often not beneficial (Rieder Bennett, 2008; Tang & Russ, 2007). So, it may be important to add

experiential opportunities in career education programming rather than just written or verbal explanations of various career options.

Role models and family involvement are also important when providing career education, especially for youth and emerging adults. One challenge for rural Appalachia is the lack of college-educated adults. In addition, the adults in general often represent a narrow range of career options. So, providing near-peer role models that come from similar communities but represent diverse careers can be vital for K-12 students. Parent involvement is recommended for most K-16 programming (Whiston & Keller, 2004), and it is particularly important for rural Appalachian programming. Bradbury and Mather (2009) suggested that including parents of first-generation Appalachian college students reduces the disconnect students feel between home and college life. Programs can intentionally involve parents and provide them with concrete information about career and college. For example, programs can host parent nights that offer families information about financial aid, postsecondary options, and how students can best prepare for college. In this way, programs empower families by sharing information they need to best support their students.

Often, the internet is used as a primary source to provide concrete information about career options. However, those in rural Appalachia, especially adults, may have limited computer skills or lack access to a computer at home. Therefore, it is important not to make assumptions about access to or proficiency with technology; it might be necessary to offer information in other modalities or to spend additional time with individuals to teach them how to use a computer and software before starting career education services. Providing education in basic computer skills adds value to the services by building connection and providing necessary work-related skills for their future career or job.

Using the Model for Other Populations

Career education programming can be enhanced by becoming more culturally informed. In this paper, we described the theoretical foundations for our approach and offered rural Appalachia as an example of how to use a cultural group's unique strengths and values to create more intentional career education services. Educators and counselors working with other underserved groups can also use this model to adapt their programming. Rather than creating standard programming, career educators should first learn about the unique cultural context of their target audience, focusing on their strengths and community values. This understanding should be based on the ecological perspective so that all influencing systems are considered. Once they have a fuller understanding based on prior empirical research, career educators can reach out to community stakeholders and build collaborative relationships with them. Families, community leaders, and local educators are likely targets for collaboration with various cultural groups. Once these relationships are built, empirically-supported interventions can be adapted to build on community strengths and meet unique needs.

Bronfenbrenner's ecological systems offers a way for providers to attend more intentionally to cultural implications of whatever empirically-supported career education model they are using. We suggest that before attending to individual career needs, career educators should first consider cultural strengths and values, followed by collaborating with exosystem and

mesosystem partners before providing intervention services at the individual level. Career education programs working with a variety of cultural groups can increase their success by following the proposed model. Although it takes extra effort, becoming culturally aware helps in the creation of an intentional and sensitive approach to career education.

Acknowledgments

This research was partially supported by a grant from the National Institutes of Health, Science Education Partnership Award, #R25OD020231.

References

- Ali SR, & McWhirter EH (2006). Rural Appalachian youth's vocational/educational postsecondary aspirations: Applying social cognitive career theory. *Journal of Career Development*, 33, 87–111. doi: 10.1177/0894845306293347
- Ali SR, & Saunders JL (2009). The career aspirations of rural Appalachian high school students. *Journal of Career Assessment*, 17, 172–188. doi: 10.1177/1069072708328897
- Appalachian Regional Commission (2016). The Appalachian region. Retrieved from: http://www.arc.gov/appalachian_region/TheAppalachianRegion.asp
- Bandura A (1986). *Social foundations of thought and action: A social-cognitive theory*. Englewood Cliffs, NH: Prentice-Hall.
- Betz NE (2007). Career self-efficacy: Exemplary recent research and emerging directions. *Journal of Career Assessment*, 15, 403–422. doi: 10.1177/1069072707305759
- Boynton M, Carrico C, Paretti MC, & Matusovich H (2013). Understanding barriers to engineering as a career choice for Appalachian youth: Investigating the “heart” of the region. Presented at the ASEE Southeast Section Conference, 2013.
- Bradbury BL, & Mather PC (2009). The integration of first-year, first-generation college students from Ohio Appalachia. *NASPA Journal*, 46, 258–281. doi: 10.2202/1949-6605.6041
- Bronfenbrenner U (1979). *The ecology of human development: Experiments by nature and design*. Cambridge, MA: Harvard University Press.
- Brown R, Copeland WE, Costello EJ, Erkanli A, & Worthman CM (2009). Family and community influences on educational outcomes among Appalachian youth. *Journal of Community Psychology*, 37, 795–808. doi:10.1002/jcop.20331 [PubMed: 20948982]
- Carrico C, Matusovich HM, & Paretti MC (2017). A qualitative analysis of career choice pathways of college-oriented rural central Appalachian high school students. *Journal of Career Development*. Advance online publication. doi: 10.1177/0894845317725603
- Center for Regional Economic Competitiveness & West Virginia University (2015). *Appalachia then and now: Examining changes to the Appalachian region since 1965 (Executive Summary)*. Retrieved from: https://www.arc.gov/assets/research_reports/AppalachiaThenandNowExecutiveSummaryOmni-opt3.pdf
- Chenoweth E, & Galliher RV (2004). Factors influencing college aspirations of rural West Virginia high school students. *Journal of Research in Rural Education*, 19, 1–14.
- PDA, Inc. & The Cecil G. Sheps Center for Health Services Research (2017). *Creating a culture of health in Appalachia: Disparities and bright spots*. Retrieved from: https://www.arc.gov/research/researchreportdetails.asp?REPORT_ID=138
- Gibbons MM, Hardin EE, Taylor AL, Brown EB, & Graham DL (in press). Evaluation of An SCCT-Based Intervention to Increase Postsecondary Awareness in Rural Appalachian Youth. *Journal of Career Development*
- Gibbons MM, Rhinehart A, & Hardin EE (2016). How first-generation college students adjust to college. *Journal of College Student Retention: Research, Theory & Practice*. Doi: 10.1177/1521025116682035
- Gore JS, Wilburn KR, Treadway J, & Plaut V (2011). Regional collectivism in Appalachia and academic attitudes. *Cross-Cultural Research*, 45, 376–398. doi: 10.1177/1069397111403396

- Guichard J (2001). A century of career education: Review and perspectives. *International Journal for Educational and Vocational Guidance*, 1, 155–176.
- Hardin EE, Robitschek C, Flores LY, Navarro RL, & Ashton MW (2014). The cultural lens approach to evaluating cultural validity of psychological theory. *American Psychologist*, 69, 656–668. doi: 10.1037/a0036532 [PubMed: 24841337]
- Herr EL (2001). Career development and its practice: A historical perspective. *Career Development Quarterly*, 49, 196–211. doi:10.1002/j.2161-0045.2001.tb00562.x
- Hodge D (2016). Appalachian coal industry, power generation and supply chain. Retrieved from: https://www.arc.gov/assets/research_reports/CoalIndustryPowerGenerationandSupplyChainReport.pdf
- Keefe S (2005). Appalachian cultural competency: A guide for medical, mental health, and social service professionals. Knoxville, TN: The University of Tennessee Press.
- Keefe SE, & Greene S (2005). Mental health therapy for Appalachian clients In Keefe SE (Ed.), *Appalachian cultural competency: A guide for medical, mental health, and social service professionals* (pp. 299–314). Knoxville, TN: The University of Tennessee Press.
- Keller S, & Helton L (2010). Culturally competent approaches for counseling urban Appalachian clients: An exploratory case study. *Journal of Social Service Research*, 36, 142–150. doi: 10.1080/01488370903578090
- Lent RW, Brown SD, & Hackett G (1994). Toward a unifying social cognitive theory of career and academic interest, choice, and performance. *Journal of Vocational Behavior*, 45, 79–122. doi: 10.1006/jvbe.1994.1027
- Leong FTL, & Gupta A (2008). Theories in cross-cultural contexts. In Athanasou JA & Esbroeck RV (Eds.), *International Handbook of Career Guidance* (pp. 227–245). Retrieved from http://eksis.ditpsmk.net/uploads/book/file/38EBF361-A274-4C3F-BA5C-6DB57C31F408/International_Handbook_of_Career_Guidance.pdf#page=239
- Maloney ME (2005). Evaluating a rite of passage program for adolescent Appalachian males In Keefe SE (Ed.), *Appalachian cultural competency: A guide for medical, mental health, and social service professionals* (pp. 315–334). Knoxville, TN: The University of Tennessee Press.
- Manoogian MM, Jurich J, Sano Y, & Ko JL (2015). “My kids are more important than money”: Parenting expectations and commitment among Appalachian low-income mothers. *Journal of Family Issues*, 36, 326–350. doi: 10.1177/0192513X13490402
- Mehra B, Black K, Singh V, & Nolt J (2011). Collaborations between LIS education and rural libraries in the southern and central Appalachia: Improving librarian technology literacy and management training. *Journal of Education for Library and Information Science*, 52, 238–247.
- Meit M, Hefferman M, Tanenbaum E, & Hoffmann T (2017). Appalachian diseases of despair. Retrieved from: https://www.arc.gov/assets/research_reports/AppalachianDiseasesofDespairAugust2017.pdf
- Nagayama Hall GC, Ibarki AE, Huang ER, Marti N, & Stice E (2016). A meta-analysis of cultural adaptations of psychological interventions. *Behavior Therapy*, 47, 993–1014. doi: 10.1016/j.beth.2016.09.005 [PubMed: 27993346]
- Nichols L, & Islas A (2016). Pushing and pulling emerging adults through college: College generational status and the influence of parents and others in the first year. *Journal of Adolescent Research*, 31, 59–95. doi: 10.1177/0743558415586255
- Obermiller PJ, & Maloney ME (2016). The uses and misuses of Appalachian culture. *Journal of Appalachian Studies*, 22, 103–112. doi: 10.5406/jappastud.22.1.0103\
- Olson JS (2016). Chasing a passion: First-generation college students at work. *Education + Training*, 58, 358–371. doi: 10.1108/ET-03-2015-0023
- Osborne D (2013). Career Education. In *Ten Ideas that Changed Career Development: A Monograph to Celebrate the Centennial of the National Career Development Association*. Broken Arrow, OK: Author.
- Pollard K, & Jacobsen LA (2017). The Appalachian region: A data overview from the 2011–2015 American community survey. Chartbook prepared for the Appalachian Regional Commission (contract #CO-18662–16).

- Protivnak JJ, Pusateri CG, & Paylo MP, & Choi KM (2017). Invisible outsiders: Developing a working alliance with Appalachian clients. *The Practitioner Scholar: Journal of Counseling and Professional Psychology*, 6, 79–91.
- Rieder Bennett SL (2008). Contextual affordances of rural Appalachian individuals. *Journal of Career Development*, 34, 241–262. doi: 10.1177/0894845307311252
- Russ KA (2010). Working with clients of Appalachian culture. Retrieved from http://counselingoutfitters.com/vistas/vistas10/Article_69.pdf
- Tang M, & Russ K (2007). Understanding and facilitating career development of people of Appalachian culture: An integrated approach. *Career Development Quarterly*, 56, 34–46. doi: 10.1002/j.2161-0045.2007.tb00018.x
- Whiston SC, & Keller BK (2004). The influences of the family of origin on career development: A review and analysis. *Counseling Psychologist*, 32, 493–568. doi: 10.1177/0011000004265660