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MAPPing Residents' Perceptions of Health-Related Quality of Life and Community Needs in Southwest Virginia: An Exploratory Study

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Abstract

Purpose: The purpose of this qualitative study was to uncover the perceptions of health-related quality of life (HRQL) in relation to community characteristics among rural residents of six areas in Southwest Virginia (N = 90). Furthermore, the aim of the current study was to determine how various community characteristics (e.g., safety, access to health services) may impact residents' perception of HRQL. **Methods:** Utilizing an exploratory study approach, one of four assessments – the Community Themes and Strengths Assessment (CTSA) – of the health needs assessment tool, 'Mobilizing for Action through Planning and Partnerships' (MAPP), was implemented to provide insight into challenges and opportunities in the community. Semi-structured face-to-face interviews were the main source of data collection. Coding was performed via *Atlas.ti*, a qualitative data analysis software. **Findings:** Interviewees perceived a largely positive HRQL (e.g., ample green space, safe neighborhoods, good school system), with an urgent need for health care reform, affordable insurance premiums and co-payments, and transportation, particularly for after-hours medical care. **Conclusions:** The present study provides insight to the perceptions of HRQL and community characteristics among residents residing in six separate rural communities within one health district (New River Valley, Virginia). The findings suggest that community residents still perceive a good HRQL in their community, despite evidence of crime, lack of transportation, and inaccessible health care services. Lessons learned are also provided to help maximize community residents' HRQL.

Keywords: health-related quality of life; community health; health assessment; rural health, qualitative research

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1.0 Introduction

According to the National Association of County and City Health Officials (NACCHO, 2013), the definition of a rural community is determined by the locale and the individual using the term. The US Census Bureau does not specifically define the term beyond those locations outside urban areas or urban centers. However, *rural health* is defined by the US Department of Health and Human Services, Health Resources and Services Administration (n.d.) as encompassing "all population, housing, and territory not included within an urban area. Whatever is not urban is considered rural" (para. 3). According to Snyder and Milbrath (2013), the Appalachian region of Southwest Virginia, consisting of six counties, is known for its natural beauty yet poor quality of health. The poor quality of health is representative of an increased prevalence of chronic disease, lower average statewide income, insufficient insurance coverage, and inadequate access to healthcare (Snyder & Milbrath, 2013; Huttlinger et al., 2004).

Health-related quality of life (HRQL) refers to the multidimensional domains of health, including physical (e.g., safety), psychological (e.g., ability to adapt), and social (e.g., interpersonal relations), which are influenced by an individual's experiences, beliefs, expectations, and perceptions, and combine measures of human needs (e.g., built, human, social, natural capital, time) with subjective well-being or happiness (Costanza, et al., 2007; Ferrans, et al., 2005; Singh, 2010; United States Department of Health & Human Services, 2010). Health status may also affect perceptions of HRQL (Donatelle, 2013; Tsai, et al., 2007). However, it is important to note that one's perceived high HRQL, despite chronic illness or disability, may be due to the fact that he/she possesses extensive health insurance and an accessible healthcare system, and that not all individuals with disability or chronic illness will report a high HRQL (Balboni, et al., 2007; Tsai et al., 2007; White, et al., 2007). Therefore, the intricate relationship among chronic illness, perceived HRQL, and use of local health care services should be carefully considered (Donatelle, 2013; Strine, et al., 2008; Tsai et al., 2007).

In order to develop new health services and improve upon existing ones, Huttlinger, et al. (2004) suggested that continued study regarding the integration of perceptions of quality of life and health care systems in rural communities would be of great value to a comprehensive community health needs assessment. Quality needs assessments are encompassing and include both qualitative and quantitative approaches. In addition, Altschuld and Witkin (2000) highlight the importance of including a strategic planning component, defined as a "process of determining, analyzing, and prioritizing needs, and in turn, identifying and implementing solution strategies to resolve high-priority needs" (p. 253). Long-term goals and planning efforts are crucial in meeting residents' varied needs with an evolving demographic and generational composition of the community.

Means to improve HRQL in relation to needs (e.g., access to health care) in rural communities are longstanding issues. However, few studies have approached these issues from a qualitative perspective using the 'Mobilizing for Action Through Planning and Partnerships' (MAPP) framework. Given that the current study is the first in a series of manuscripts that will entail the other phases of MAPP, the principal investigator framed the current exploratory study via the 'Community Themes and Strengths Assessment' (CTSA) component of MAPP. Originally developed by the National Association of County & City Health Officials

(NACCHO), MAPP is a community-wide strategic planning tool for improving community health and HRQL. MAPP is comprised of four individual assessments: (a) organize for success/partnership development, (b) community themes and strengths assessment, (c) local public health system assessment, and (d) community health status assessment. Additionally, five components constitute the process, including organizing for success/partnership development, visioning, identifying strategic issues, formulating goals and strategies, and the action cycle. Each assessment and final component influences the next in a cyclical manner (NACCHO, 2001) (see Figure 1 below).

Figure 1: The four Assessments and six Components of the Mobilizing for Action through Planning and Partnerships (MAPP) Process.

Source: Adapted with permission from the National Association of County and City Health Officials (NAACHO, 2001).

The CTSA is the first of four MAPP assessments to provide insight into challenges and opportunities in the community, and the assessment of focus for the present exploratory study. The assessment also provides an understanding of the issues that residents feel are important by answering questions such as, “What is important to our community?” “How is HRQL defined and perceived in our community?” and, “What assets do we have that can be used to improve community health?” During this phase, community thoughts, concerns, and opinions are utilized to determine the issues that are most important to the community. Feedback regarding HRQL in the community and community assets also is gathered, which reveals crucial information from the residents’ perspectives. Benefits derived from this phase involve a sense of ownership in (i.e., residents’ concerns are an integral part of the process) and responsibility for the outcomes of the MAPP process, which entail more of a vested interest on behalf of participants and community members.

Nevertheless, in that only one component of MAPP was incorporated in the current study, the comprehensive nature of a full implementation of MAPP is lacking.

The residents' feedback on the community provides the foundation for determining key issues and solutions to current concerns, which can offer insight into other assessment findings and lead to greater sustainability and enthusiasm throughout the process. Furthermore, the MAPP framework suggests incorporating a range of methods to assess the community's health needs, including face-to-face interviews, focus groups, and windshield surveys, which constitute the CTSA component of MAPP (NACCHO, 2001). However, for the purpose of the current study, the focus was narrowed to collect qualitative data via face-to-face interviews utilizing a series of open-ended questions (see Interview Guide below). An increasing focus on disease prevention that improves HRQL has the potential to motivate individuals to change health risk behaviors (e.g., unhealthy diet) earlier in life and ensure a maximum number of healthy years (Costanza et al., 2007; Strine, et al., 2008). The benefits of utilizing MAPP include enabling healthy communities through a process of exposing residents' perceived quality of life, knowledge of public health issues and local health care services, involving community strategic planning to develop public health partnerships, and involving residential ownership of public health initiatives for the improvement of quality of life (NACCHO, 2014). Therefore, researchers believe the CTSA component of MAPP will provide a foundation for future preventative initiatives in the community through dialogue and qualitative analysis via *Strengths and Themes* of residents' perceptions of HRQL.

Interview Guide:

1. Are you satisfied with the HRQL in our community? *(<u>Prompt:</u> Think about your sense of safety, well-being, participation in community life and associations, etc.)*
2. Are you satisfied with the health care system in the community? *(<u>Prompt:</u> Think about access, cost, availability, quality, options in health care, etc.)*
3. Is this community a good place to raise children? *(<u>Prompt:</u> Think about school quality, day care, after-school programs, recreation, etc.)*
4. Is this community a good place to grow old? *(<u>Prompt:</u> Think about elder-friendly housing, transportation to medical services, churches, shopping; elder day care, social support for the elderly living alone, meals on wheels, etc.)*
5. Is this an easy place to find a job or start a business to make a living? (*<u>Prompt:</u> Think about locally owned and operated businesses, jobs with career growth, job training/higher education opportunities, affordable housing, reasonable commute, etc.)*
6. Is the community a safe place to live? Do you feel safe in this community? *(<u>Prompt:</u> Think about residents' perceptions of safety in the home, the workplace, schools, playgrounds, parks, the mall. Do neighbors know and trust one another? Do they look out for one another?)*
7. When families and individuals need help in this community, are there agencies and organizations that can help? *(<u>Prompt:</u> Think about neighbors, support groups, faith community outreach, agencies, organizations)*

8. What kinds of agencies and organizations do you know of? Is it easy or hard to get services and help here? Do these helping organizations work together well in providing services?
9. What are some of the things that would make the community a better place to live?
10. (a) Do you think your *neighbors* know that they can, as individuals or in groups, help make this a better place to live? (b) Do you feel *you* personally can do things to help make this community a better place to live? What kinds of things?
11. Do you think most people in this community care about living here? Do you think most people here like to work together to keep this a good place to live?

2.0 Purpose of the Study

As the first in a series of manuscripts, the purpose of the present study was to uncover residents' perceptions of HRQL using the CTSA component of MAPP and to determine how various community characteristics (e.g., safety, access to health services) may impact residents' HRQL. Examining community characteristics is important to understanding how to improve upon existing services and resources to better meet residents' needs. The MAPP tool has been implemented across the United States (e.g., Columbus, OH; Lee County, FL; Mendocino County, CA; Nashville, TN; Northern Kentucky; San Antonio, TX) (NACCHO, 2001). However, the current exploratory study represents the initial implementation of the MAPP tool in Virginia. Identifying community strengths and themes through area-based HRQL will provide the foundation for the Local Public Health System Assessment (LPHSA) of MAPP to assess the public health contributions that organizations can facilitate within the community (NACCHO, 2013), the results of which will be presented in a forthcoming manuscript.

3.0 Methods

The current study utilized an exploratory research design, which is typically pursued prior to more conclusive research and is ideal when the problem to be studied has not yet been formally determined or clearly defined. Furthermore, exploratory research, which tends to be more cost-effective than other study designs, allows researchers to determine the problem, as well as develop the hypotheses to be tested, research design, and target population. Exploratory research can rely on secondary data, or in the case of the current study, qualitative approaches such as focus groups, in-depth interviews, and pilot studies (University of Guelph, 2014).

The face-to-face interview guide was adapted from NACCHO's MAPP project managers, who utilized the same interview guide for previous MAPP assessments across the country, which provided instrument validity. Upon ethical approval from the Institutional Review Board during Spring 2012 and based on suggestions on behalf of the local health district director, the primary investigator interviewed a convenience sample of 90 residents aged 19-92 among the six interview groups at locations across six areas that comprise the New River Valley of Southwest Virginia, including local free clinics, senior centers, and community agencies serving low-income individuals. A total of 15 interviews were conducted for each of the six interview groups, so that each group had an equal number of interviewees. Fifteen

interviews were sufficient in allowing the primary investigator to determine redundancy of findings and uniformity in the number of individuals interviewed from each group (Merriam, 1998). Each interview was electronically recorded on a laptop. Interviews were held at each site with random voluntary participants and averaged 20-30 minutes each. The entire process was strictly anonymous and voluntary, and no identifying information was requested at any time during the interviews. Alternatively, each interview transcription was given a randomized numerical code to assist with data entry and management.

Semi-structured face-to-face interviews were the main source of data collection and were digitally recorded and transcribed verbatim. The data analysis process followed several steps: (a) iterative coding of the data using the open-coding technique (Strauss & Corbin, 1998), (b) sorting and refining diverse themes emerging from the data according to definitions of the categories (Strauss & Corbin, 1998; Weitzman, 2000), and (c) linking the themes to specific categories and concepts. Coding was performed via *Atlas.ti 7*, qualitative data analysis software, which coded; linked codes and text segments; documented diversity in codes; created memos; searched, edited and reorganized; and provided a visual representation of the findings (Huberman & Miles, 2002; Weitzman, 2000).

The primary investigator performed the interpretation of selective codes (i.e., those with dual meaning), the categorization of codes, and the examination of empirical findings in conjunction with the literature (Eisenhardt, 1989). Seven thematic codes were established that related to the open-ended interview questions and were used for coding the information obtained during the interviews; they included community HRQL, community safety, community opportunities, community cohesion, community health care system, awareness of community health-related agencies and organizations, and community needs. Each electronically recorded interview was then analyzed for key themes (i.e., positive versus negative) that characterized the codes using the constant comparative method. The resulting analysis provided a description of residents' perceptions of HRQL and the reasons behind their perceptions.

4.0 Results

The primary investigator interviewed 90 men and women representing six areas of one health district within Southwestern Virginia. A final analysis of 15 interviews from each of the six groups was conducted. The following analysis presents a synthesis of how each group responded to the open-ended questions.

4.1 Area 1 Group

Overall, Area 1 perceived a good HRQL in the community (see Table 1 below). For instance, several of the interviewees shared that the local community is fairly cohesive and progressive and promotes a healthy lifestyle and good quality of life. In addition, several residents noted that the community is a good place to grow old, that offers a wide range of support programs, such as the Retired Senior Volunteer Program (RSVP), food bank, and the Women's Resource Center, to name only a few, as well as a good school system. Nevertheless, several negative perceptions of the community were reported, including a lack of jobs, high cost of living, and limited housing/assisted living resources for seniors.

Table 1. *Thematic Codes and Examples per Area 1*

Code group	Positive examples	Negative examples
Community HRQL	"Promotes a good quality of life." "Somewhat progressive community." "Very good place to grow old with lots of support programs." "Good schools and homes."	"Jobs are not plentiful." "I don't know if it costs more or less here—it just costs."
Community safety	"Doors are often unlocked because neighbors know and take care of each other." "Interesting, inspiring, and safe to raise children." "Sheriff patrols neighborhood regularly."	"Character is changing and problems starting to creep in." "Others are afraid of people breaking in."
Community opportunities	"Government is welcoming of citizen participation and input." "Plenty of recreational activities."	None
Community cohesion	"People are concerned about their neighbors." "We are a fairly cohesive group." "We share a common vision of the town."	None
Community health care system	"Good access and wide variety of doctors." "Excellent experience in the after-hours clinic."	"We would leave the area for better care."
Awareness of agencies	United Way, Boys and Girls Club, Big Brothers/Big Sisters, Food Bank, Women's Resource Center, Humane Society, Habitat for Humanity, Salvation Army, RSVP	None
Community needs	Not applicable	"More things needed for high school students to do; they seem left out." "I think housing/assisted living opportunities may be limited."

4.2 Area 2 Group

The consensus within the Area 2 group regarding perceived HRQL was overall positive, although several areas of need were also mentioned (see Table 2 below). For instance, interviewees' consistently commented on the number of learning and volunteer opportunities for seniors, quality of housing, and community resources, such as free clinics, social services, retirement centers, and transportation services. Furthermore, Area 2 was viewed as an admirable place to raise children with a low crime rate. Nevertheless, despite the various positive comments, there was a discrepancy in the negative perceptions that were noted. More specifically, several residents commented on a lack of vested residents and lucrative jobs, the need for additional health/medical resources (e.g., free clinic staff), more accessible

transportation, and improved schools with more recreational activities in which children and teens can become involved.

Table 2. *Thematic Codes and Examples per Area 2*

Code group	**Positive examples**	**Negative examples**
Community HRQL	"Nothing in [big city] that we don't have here!" "I like the lack of heavy traffic." "Rural makes it better." "Good place to raise children." "Housing is good."	None
Community safety	"Neighbors trust one another." "Lots of crime, but not here." "SW VA is a better place for my children."	"It's not as safe as 10 years ago."
Community opportunities	"Good volunteer opportunities." "There are lots of learning opportunities for seniors; terrific recreation centers."	"You can find jobs, but not necessarily good ones."
Community cohesion	"I rely on my friends for transportation." "Neighbors pitch in where needed."	"People should get more involved; they should care more about the community and not be so self-absorbed." "Neighbors don't know each other."
Community health care system	None	"Free Clinic needs more people/resources (e.g., pharmacists)." "Health care can be difficult and expensive if not through employer."
Awareness of agencies	Free Clinic, Social Services, RSVP, Rescue Red Cross Blood Bank and local hospital Agency on Aging, police department Med Ride, County Health Department	"I've never heard of Meals on Wheels."
Community needs	Not applicable	"Better transportation & schools." "Children need more activities." "Not many jobs here." "Need better community leadership."

4.3 Area 3 Group

The Area 3 group perceived an overall very good HRQL (see Table 3 below). Specific positive perceptions include a stable community with a sense of responsibility among

most residents. Furthermore, the local community is perceived as not being an overly commercialized area that offers a range of services for residents spanning the age spectrum, including fairly accessible health care via a range of medical clinics, as well as the State Children's Health Insurance Program. However, several negative perceptions were recorded, such as the high cost of living, lack of hospitals in the area, drug use and car accidents among teens, and no public transportation services. In addition, one resident mentioned a divisive sense between newcomers to the area and veteran residents. Interestingly, another resident mentioned the need for more intergenerational opportunities, which may would serve as a harmonizing thread.

Table 3. *Thematic Codes and Examples per Area 3*

Code group	**Positive examples**	**Negative examples**
Community HRQL	"Stable community with a sense of responsibility." "Safe, beautiful, not commercialized." "There's more help for baby boomers here."	"It's hard for single parents." "There's drugs and peer pressure."
Community safety	"It's very safe here." "No one locks their doors."	"There are lots of car accidents among teens."
Community opportunities	"We do lots of home-schooling." "Lots of music, arts, and crafts are here." "It's easy to start a small business here." "Better schools than other counties."	None
Community cohesion	"People are friendly, helpful, and supportive." "There is a sense that we are all in this together." "Neighbors are kind and look out for others." "People pull together here."	"Neighbors don't care." "There's friction between newcomers and old-timers to the area."
Community health care system	"There's herbalists/alternative medicine here." "You can get care here, even without insurance."	"There's a 45-minute drive for health care." "There are no hospitals here."
Awareness of agencies	Multiple clinics, pharmacy, Head Start, State Children's Health Insurance Program, Family Preservation Group, Emergency Assistance Program	"Free Clinic services are offered only twice per month."
Community needs	Not applicable	"There's no public transportation." "No manufacturing opportunities." "We need more jobs and recreation." "We need a lower cost of living." "We need better schools." "We need intergenerational opportunities."

4.4 Area 4 Group

The Area 4 group highlighted several positive and negative perceptions of HRQL (see Table 4 below). Several respondents reported a range of positive aspects of the community, including its safe and welcoming sense to older adults and children with a good school system, a range of after-school programs, and multiple health and transportation services (e.g., free clinic, Med Ride, senior bus). However, there is a

major lack of industry in the area, as many local factories have closed, requiring residents to travel a great distance to jobs in the city. Furthermore, a few residents commented that there is a lack of trust among residents, so people do not interact much with each other.

Table 4. *Thematic Codes and Examples per Area 4*

Code group	**Positive examples**	**Negative examples**
Community HRQL	"This is an excellent community for children with good after-school programs." "It's very elder-friendly." "The school system is good."	None
Community safety	"There's good police protection." "Good place for children and very safe."	"Most neighbors know, trust each other, although I have had problems with my nearby neighbors."
Community opportunities	"There are many social and community activities." "Taxi services are readily available." "Seems like businesses are starting up." "There's plenty of shopping." "Lots of community service volunteers here."	"Many factories have closed." "Best place to find a job is the city, which is about an hour and a half each way."
Community cohesion	"Everybody is so friendly." "Neighbors take care of one another and look out for weaker members."	"It's hard to deal with big corporations." "People don't interact that much."
Community health care system	"Doctors are handy." "It's easier to get good health care here."	"Access to Free Clinic is a problem." "Getting work-related insurance is a problem."
Awareness of agencies	Meals on Wheels, Emergency Assistance Program, Free Clinic, Food/clothing bank, RSVP, Salvation Army, Med Ride & senior bus	None
Community needs	Not applicable	"It's rough to find good jobs." "Government doesn't pay enough for prescriptions." "We need more business here." "Better water is needed here." "There's a major lack of industry." "We need affordable school activities."

4.5 Area 5 Group

Overall, the perceptions of HRQL among the Area 5 group were very positive (see Table 5 below), with one resident claiming that it is an extremely safe community that allows its residents to remain active in the community and prides itself on volunteerism. In addition, after the removal of older buildings, there is an enhanced visual impression. Nevertheless, there were negative perceptions of HRQL in the

community, including increasing drug use, and one female who reported being raped a few months prior to the interview. Another interviewee observed that the community is in decay and its rich history has been depleted by the demolition of older buildings, with no novel businesses to fill the vacancy.

Table 5. *Thematic Codes and Examples per Area 5*

Code group	Positive examples	Negative examples
Community HRQL	"Police cars are seen multiple times daily." "The town has cleaned up all areas by removing old buildings, so there's a great visual impression." "We're active in the community."	"I'm concerned with increasing drug use and its consequences." "It appears to be in decay and the area's rich history disappears with the demolition of each building."
Community safety	"I feel very safe here."	"I was raped in April, which caused me to feel unsafe in my own community." "I'm not confident about citizens' safety when the only time law enforcement is seen is during a drug bust on the block."
Community opportunities	"Housing is available and affordable here." "It's an easy commute to the country." "Higher ed and job training opportunities are easily accessed in nearby universities, community colleges, etc."	"It's very limited—great many businesses and manufacturers have closed." "You have to travel to the city for a good job." "Locally owned businesses seem to struggle."
Community cohesion	"The same people still live here after many years." "We are a resource for others." "We encourage community involvement." "Our community is rich with skilled volunteers."	"The voice of the elite is heard the loudest." "Making a difference on a global scale is difficult, so why bother?" "There's no pride evident in the town right now."
Community health care system	"There are good area hospitals." "There's availability to medical resources outside the area."	"I have a difficult time accessing care due to the lack of insurance." "There's limited geriatric health professionals available." "There are limited women's issues specialists here."
Awareness of agencies	Free Clinic, SCHIP, Head Start Program, Kiwanis & Lions Club, Agency on Aging & RSVP, SHARE Program, Meals on Wheels, Habitat for Humanity, Food banks	"More support groups for caregivers would be helpful." "There's lots of fragmentation of services and limited collaborative efforts among agencies."
Community needs	"I wouldn't change a thing—beautiful views; natural beauty greatly adds to my quality of life."	"We need adult day care programs." "There should be a recreational center open to the public." "Development of senior living communities would be ideal." "We need a better and more affordable public transit." "Health care services that focus more on senior and women's health issues are desperately needed."

4.6 Area 6 Group

Per the Area 6 group, there was a strong sense of satisfaction with the community and positive HRQL (see Table 6 below), due, in part, to its comparatively safe quality, variety of resources, and community bonding. Interestingly, it was noted by one interviewee that it is a well-established community with a consistent resident population. Therefore, knowing one's neighbors enhances the quality of life experienced in the area.

Nevertheless, one interviewee perceived a lack of HRQL due to the lack of available jobs and increasing younger generation to overrule the workforce, as well as a lack of transportation, mental health, and elder care services. Furthermore, while there were a number of services available, several residents noted that they did not know *how* to access the services or complete the required forms to obtain such services.

Table 6. *Thematic Codes and Examples per Area 6*

Code group	Positive examples	Negative examples
Community HRQL	"I feel safe." "There's lots of resources for people here." "Knowing neighbors helps increase QoL."	"There are no jobs and too many people."
Community safety	"A policeman lives nearby, so I feel safe." "There's very little crime here." "Police do an excellent job." "My neighbors look out for those living alone." "I feel very comfortable here." "I'm not afraid to go out alone at night."	"I'm scared to walk down the street alone at night due to the threats of living in a college town." "All our problems are caused by newcomers."
Community opportunities	"It's relatively easy to start a business here." "There's good higher education opportunities." "Affordable housing is available here."	"There aren't enough jobs to go around." "Housing here is very high." "The only job opportunities are for minimum wage jobs." "This is a difficult place to find a job." "There's a shortage of jobs, especially blue collar."
Community cohesion	"There's lots of community bonding." "Small business owners really band together here." "People work individually and in groups to make our community better." "We have mentorship programs and talk with high schoolers about the benefits of college."	"I feel helpless with the problems facing the community." "People work together somewhat, but there is room for improvement for sure."
Community health care system	"There's easy access to health care with your Medicare benefits." "There's excellent care at the clinic."	"There's no elder care services or help available." "There are minimal mental health services, especially if you don't have insurance."
Awareness of agencies	Social Services, NRV Community Services, church support; afterschool program & food bank, Recreation Center for Youth, home health care, EMS, police, and fire department	"It's difficult to obtain services." "Churches aren't doing much public outreach around here."
Community needs	"Our organizations work together well." "Services are easy to obtain and work together well." "Many services are available to reach out and help those in need."	"Improvements to public transportation." "We need more nightly hangouts for youth." "We need more jobs here." "Better care for older adults is needed." "More doctors would help."

5.0 Discussion

Huttlinger, et al. (2004) suggested that continued study regarding the integration of perceptions of quality of life and health care systems in rural communities would be of great value to a comprehensive community health needs assessment, improving existing health services, and establishing necessary services. Specifically, rural populations are more likely to experience chronic disease, poorer health status, and

reduced transportation opportunities and health care services (Nelson, et al., 2007). Nevertheless, based on the current findings, a high HRQL was perceived by each interview group, with constructive comments targeting each community's personal needs. Therefore, building upon a community's strengths and carefully targeting specific needs are crucial in enhancing the overall HRQL for all residents.

5.1 Area 1

Similar to previous findings that satisfaction with one's community plays a role in life satisfaction and HRQL (Sirgy & Cornwell, 2002), Area 1 perceived that the community promoted a good quality of life for its residents in terms of safe neighborhoods and ample community activities (e.g., senior centers, recreation centers). The interviewees viewed the community as progressive, with the presence of a large university and a new osteopathic college; a commendable public school system with high student success rates and standardized test scores; a competitive and active housing market; and numerous support organizations, agencies, and programs within reach. More specifically, student scores on standardized tests in the public schools were among the highest in the state of Virginia (Greatschools, 2013). Additionally, the housing market, while on the high end in neighborhoods directly surrounding the university, is extremely competitive (RKG Associates, 2001). The interviewees also perceived the community as promoting a healthy lifestyle that offers ample walking/biking trails (e.g., greenspace) and physical activity programs. Rural communities that promote healthy lifestyles by initiating physical activity programs foster a high HRQL (Heath, et al., 2012; Jenkinson, et al., 2012; Sirgy & Cornwell, 2002).

The focus on a healthy lifestyle and its relation to a high HRQL outweighed the perceptions of minimal career opportunities within Area 1. Residents felt that jobs were not plentiful in the area, unless one was employed by the local university or other smaller scale organizations, and the cost of living seemed to increase with each passing year. The findings from the Area 1 interviews suggest that communities encouraging a healthy lifestyle and offering sufficient health-related programs and services can compensate for a lack of substantial employment opportunities and still provide a high HRQL. The findings do not, however, suggest that a career or meaningful employment is optional to survival, as all of the interviewees were either currently employed or retired from jobs in the community.

Positive perceptions of HRQL were not applicable to all interviewees from Area 1. Access to certain health services was viable for some residents, but lack of transportation posed a barrier for others. Lack of transportation was a major barrier found in previous studies and resulted in false perceptions of community health services. For instance, rural residents who lack transportation may believe that necessary health-related services are not offered, when in reality, such services are available (Arcury, et al., 2005; Casey, et al., 2001; Taylor, et al., 2012). Individuals requiring specialized care are oftentimes required to travel great distances to receive necessary care, which is not uncommon in rural locales (Arcury, et al., 2005; Casey et al., 2001; Nemet & Bailey, 2000; Rosenblatt, 2002; Taylor, et al., 2012). One study found a locally funded transport van was not shown to improve access to health care, as it required eligibility, cost to users, limited pick-up points, and time uncertainty (Averill, 2013). Consequently, health care services should be implemented at more consistent distances with less eligibility requirements to account for the lack of access.

5.2 Area 2

Area 2, the most suburban locale of the six interview groups, and similar to Area 1, was perceived by the interviewees as offering a good HRQL. The interviewees perceived the area as a good community in which to raise children with a reasonable housing market. Scholars (e.g., Sirgy & Cornwell, 2002; Struthers & Bokemeier, 2000) found that community residents consider a quality environment in which to raise children and a reasonable housing market as high priorities. Furthermore, three of seven interviewees had previously transitioned from larger cities and greatly appreciated the rural quality of the community. Previous researchers (e.g., Best, et al., 2000) have also iterated that one's HRQL frequently improves with relocation to a rural locale. Health promotion and disease-management programs in rural areas show evidence for achieving greater impacts on health in comparison to urban areas due in part to filling the gap between inadequate health care services (Meng et al., 2009).

5.3 Area 3

The general perception of HRQL in Area 3 was positive, as the community is very rural and offers appealing aesthetic qualities for those seeking a less hectic or less commercialized lifestyle than Areas 1 or 2. Four out of seven interviewees in this group perceived Area 3 as offering a stable community that promotes a sense of responsibility among its members. One asset that was continually mentioned during the interviews was the significant presence of middle-aged women. This characteristic suggests that the area may be a coveted location in which to retire, particularly for those desiring a more tranquil locale than that provided by the city or suburbs. Researchers (e.g., Filkins, et al., 2000; Whitener & McGranahan, 2003) concur that rural communities are oftentimes coveted among retirees seeking a peaceful existence and a higher HRQL in retirement. However, many older adults (aged 65 or older) have specialized needs, such as assisted living or long-term care arrangements, older adult-focused social and physical activities, and social services, such as Meals on Wheels or in-home care (Flora, et al., 2003; Patrick, et al., 2001). With regard to retirees with special circumstances, such as requiring an assisted living residence, a largely rural community, such as Area 3, despite its aesthetic qualities, may not be a suitable choice given its limited resources to cater to a wide range of health-related needs.

As is the case with many communities in modern America - both rural and urban alike - drugs and peer pressure are a real problem. Consequently, societal problems, such as crime and drugs, have a negative influence on perceptions of HRQL in the community (Benedict, et al., 2000). Challenges experienced by the area's single parents negatively affected HRQL, which may be due to a lack of support services and financial resources to assist such a living situation. Similarly, scholars (e.g., Brown & Lichter, 2004; Weinraub et al., 2002; Wiley et al., 2002) found that single parents experience a lower HRQL than their married or childless counterparts due to a lesser likelihood of accessing or receiving necessary support and/or financial services. Furthermore, single mothers face limited economic potential and workplace opportunities, but education provides redemptive services. One such program is the Single Parent Program (SPP), which is a nonprofit organization that links with local research universities, community colleges, and regional postsecondary institutions in order to teach economic independence. Additionally, the SPP participants receive housing, medical and dental care, counseling, legal advice, referrals to community

services, and group support. Educational and community support systems empower individuals and promote change (Haleman, 2004).

5.4 Area 4

Area 4, a similarly structured rural community to Area 3, perceived HRQL as extremely high, with no negative perceptions reported by the group. Likewise, similar to Area 3, interviewees perceived the area as very elder-friendly and offering a sound school system with a variety of quality after-school programs. A perceived high HRQL in a community that offers a variety of support programs and activities, such as social activities for seniors and after-school sports programs, confirms previous research. For instance, Sirgy and Cornwell (2002) found communities that are perceived by citizens to provide a high HRQL also provide support services within the community and create a bond among residents. Additionally, the majority of interviewees considered the community to be a good choice for those with young children in the public school system. Education was a priority for Area 4, particularly those with school-aged children and grandchildren, as was an environment supportive of older adults' HRQL. Researchers (e.g., Bauch, 2001; Filkins et al., 2000; McCoy, 2006; Sirgy & Cornwell, 2002; Whitener & McGranahan, 2003) found a community that is perceived to provide a high HRQL also values educational opportunities for its youth and workforce. Institutions of higher education have great potential to support a multitude of youth development and educational opportunities without the need for completing a degree. Development of youth educational experiences in the context of higher education is only the first step; subsequently, youth must have a career system in place to utilize their educational experiences (Borden, et al., 2004).

5.5 Area 5

Overall, and similar to Areas 1 through 4, the Area 5 group perceived a good HRQL and strong sense of community cohesion, with several apparent community needs, such as an improved transit system, more job opportunities, and a more accessible local health care system. There was a fair distribution of both positive and negative attributes perceived by the interviewees. However, it was unclear how long interviewees resided in the area and their familiarity with available services, or whether they relocated from another state that offered more accessible health care services or job opportunities. While Area 5 had many community needs, the residents seemed to appreciate their HRQL and the surrounding aesthetic beauty of Southwest Virginia.

5.6 Area 6

There were several positive points to Area 6, such as the availability of many community agencies and organizations, unlike Areas 1 through 4, collectively. However, the community lacks the availability of and access to elder care services, an expanded public transit system, and job opportunities, particularly for blue-collar employees. At least one interviewee was not aware of any available community agencies and organizations, which reiterates the need for improved public communication/media on behalf of local agencies and organizations to promote awareness of service availability.

6.0 Conclusions

The perceptions of HRQL in the community were consistently positive among the six areas, but may have been at least partially affected by generational differences. For instance, a blue-collar single parent may perceive poor HRQL, while an older adult may perceive the area as needing more resources for baby boomers. Similarly, an individual who desires to establish a career may perceive that decent-paying jobs are not plentiful in the area, while a retiree may perceive the community as offering ample community-based activities and senior support programs. Perceptions regarding HRQL in a community should be examined carefully, because factors such as age, socioeconomic status, gender, and ethnicity may affect one's perceptions. In addition, the cost of living in a community may affect one's perceptions of the HRQL. Furthermore, it was not clear during the interviews how often and to what extent the interviewees accessed the local health care system. Nevertheless, the overall perception of the HRQL among the six groups was positive, despite one's socioeconomic status.

Each community resident had a different set of priorities that constitute HRQL. Thus, an additional factor that may negatively affect perceptions of HRQL in the community may be one's prioritization of community assets and resources. For example, one woman in Area 4 mentioned that there was plenty of shopping in the area, which may have inflated her perceptions of the HRQL in the community. Another female resident, who did not consider shopping opportunities to be a priority, perceived a lesser HRQL for other reasons, including the lack of recreation facilities and public transportation.

Feeling safe in the community was an additional factor that may affect one's perceptions of HRQL (Taylor et al., 2012). For instance, one interviewee in Area 3 indicated that drugs and peer pressure were mounting problems in the area. Lack of safety or the perception that the community is unsafe can negatively affect one's HRQL, which may be dependent upon the particular side of town in which one resides and perceptions of effectiveness of the local police department.

The two populations that were continually mentioned were children and older adults. Consequently, community planners, health department professionals, school system personnel, and older adult living facility administrators and staff should collaborate to best meet these populations' needs. Partnering with the elder population in rural communities allows for greater trust in the development of community interventions (Brown et al., 2012). Those with special needs (e.g., mental illness) were briefly mentioned by Area 3, which offers a specialized facility to treat this population, and warrants further attention.

7.0 Research Implications

Notwithstanding previous studies' findings (Oguzturk, 2008; Weeks et al., 2004), the most profound finding of the current study is that, despite the perceived needs, particularly access to health care services, interviewees still perceived a good HRQL in their respective communities. This finding may lead one to believe that community residents' perceived HRQL is independent of a community's actual needs. However, there were many other factors not examined in the current study, such as family relationships, retirement status, previous rural versus urban residence, extent of use of the local health care system, and income levels that may lead to a perceived good HRQL and should be considered for future studies. In addition, a

perceived positive HRQL does not suggest that perceived needs of the local health care system should be ignored. On the contrary, as reported in the interviews, improved access to after-hours care, transportation, and universal health insurance were considerations for the betterment of the current health care system in Southwest Virginia and throughout the US.

In that lifestyle factors are modifiable, behavioral interventions among rural residents should be developed based on urban models, such as community education and outreach that considers rural social norms and issues of access to care. There needs to be a shift in focus on lifestyle changes and barriers to such changes to care that are typical among rural residents, such as prohibitive costs; long distances to treatment; social stigmas concerning diagnosis and treatment; heavy patient load among physicians; lack of accessible continuing medical education for physicians; cultural health beliefs; and community knowledge and attitudes about risk factors, prevention, and treatment, including vision care and foot care for diabetic individuals, as well as the implementation of free clinics (Arcury et al., 2005; Beem, et al., 2004; Borders, et al., 2004; Committee on the Future of Rural Health Care, 2005; Davis, 2004; Eberhardt & Pamuk, 2004; Huttlinger et al., 2004; Scariati & Williams, 2007). The current study provides evidence for the *Community Themes and Strengths Assessment* of MAPP in relation to HRQL within one health district. Future research should seek to involve local organizations, businesses, and higher education institutions through the *Local Public Health System Assessment* (LPHSA) (NACCO, 2013).

While the current study provides important insight to HRQL in a rural community, several limitations should be addressed. First, one health district in Southwest Virginia was the primary focus. Therefore, a very different set of perceptions regarding HRQL may be indicated elsewhere. Second, there is a large proportion of under-/uninsured individuals residing in Southwest Virginia, which may not be the norm for another locale in the state with a higher annual income (e.g., Washington, DC), which would thereby provide a very different sample. Consequently, an area with a higher annual income may experience a better HRQL, larger range of available health care services, and improved access to such services, including transportation. Third, as reported by Yin (1994) and Lavrakas (2008), utilizing interviews as the primary source of data collection presents unique limitations, including bias due to poorly written questions, response bias (e.g., conditions or factors that take place during the process of responding to surveys, affecting the way responses are provided), incomplete recollection, and reflexivity (i.e., interviewee states what he/she thinks the interviewer wants to hear). Fourth, a convenience sample technique was utilized in the collection of data, which may be biased depending upon the interviewees who were present at the selected locales, and who volunteered to participate. In addition, important recommendations for future research include a larger sample size in order to generalize the findings to similarly structured communities, and to examine how cultural health beliefs and spirituality (formal or informal practices) relate to one's perceptions of HRQL as applied to a rural living. Fifth, caution is needed in drawing strong conclusions due to the study's exploratory nature. Similarly, the current study's findings cannot be widely generalized, as would be possible via a representative survey, given that the only data collection method within this study was a set of one-time one-on-one interviews with a relatively small sample of self-selected interviewees. Finally, participants' perceptions of their community's HRQL were formed based on a range of factors, including their socioeconomic status, locale within said community, their need for

health services or schools, their physical health and age, how long they have lived in that community, and the like. Having no demographic information on the participants limits possibilities to understand and contextualize their responses. Therefore, it is proposed that further studies would extend this research, building on the six themes found, and include demographic information to help frame and generalize the results.

Despite its limitations, the present study provides insight to HRQL perceptions and community characteristics, including needs, among residents within one health district in Southwest Virginia. The findings suggest that residents still perceive a good HRQL in their community, despite high crime and lacking transportation and health care services. Several important lessons learned include: The benefits of a strong partnership between an academic institution and local community health department to forge a collaborative research team; the initial and continued involvement of a government agency (NAACHO) and community residents to inform the interview questions and process; and the continued cognizance of both the reach of such a study as well as the short- and long-term impact on the communities under investigation. Though future research is warranted, the current observations provide insight to future research variables, such as the need for more comprehensive community needs assessments, health professional surveys, health policy revisions, advocacy, and coordination among the local health department, nonprofit health agencies/organizations, and government agencies. Ultimately, it is the research team's hope that other communities across the country will implement the MAPP tool in its entirety to assist in determining and addressing communities' most pressing needs in a comprehensive manner.

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