



Healthy Tazewell County Initiative: Implementation of the MAPP Process and Survey Findings

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Abstract

The Mobilizing for Action through Planning and Partnerships (MAPP) process, provides a way for communities to collaboratively prioritize and improve public health issues by determining gaps as well as strengths in public health services (McClellan, 2005). Results from the four assessments in step three of MAPP identify quality of life issues, efficiency of current services, observation of community health status, as well as forces of technology, laws, and other ever-developing facets that may affect how public health systems function ("National Association of City and County Health Officials," 2012). To date no studies have been found investigating the MAPP process relative to which factors citizens perceive most important to quality of life within a community. Thus, as a research question, we investigated the most important features of a healthy community listed by residents of Tazewell County, then used the quality of life questions to predict a multi-item outcome applying hierarchical regression analysis. The results of this research found that when the Tazewell Public Health Department is seeking to implement positive change in the community they should aim to focus on living in a community that (a) has a strong overall quality of life, (b) is a good place to grow old, (c) has clean air and water, (d) has an active sense that citizens can make the community a better place individually and corporately, and (e) has pride in shared accomplishments.

Introduction

The Tazewell County Health Department (TCDH) reviews the health of the community every five years. In this year's assessment, an innovative process of Mobilizing for Action through Planning and Partnerships (MAPP) was utilized for the first time in the county. The process is designed to provide a way for communities to collaboratively prioritize and improve public health issues by determining gaps as well as strengths in public health services (McClellan, 2005). Six steps are implemented in MAPP, including (a) Organize for Success, (b) Visioning, (c) Four Assessments, (d) Identify Strategies (e) Formulate Goals and Strategies, and (f) Action Phase. Of the four assessments in step three of MAPP, a *Community Themes and Strengths* survey includes focuses on identifying quality of life issues, efficiency of current services,

perceptions of community health status, as well as forces of technology, laws, and other ever-developing facets that may affect how public health systems function (NACCHO, 2012). Crucial to all steps, particularly the four MAPP assessments as stated in the majority of literature existing on the MAPP process, is community participation, engagement, diversity, and expertise.

To date no studies have been found that have investigated the MAPP process in relation to the factors citizens perceive most important to quality of life within a community. Thus, as a research question, we first investigated the most important factors of a healthy community listed by residents of Tazewell County. We then used these quality of life questions to predict a multi-item outcome measure representative of a healthy community.

Method

Samples and Procedures

Participants had to be 18 years of age or older and reside in Tazewell County. The survey instrument, based on a similar MAPP implementation in San Antonio, Texas, was advertised in local newspapers, school newsletters, and church bulletins; it was available to complete online and in Tazewell County public libraries. Data were collected from a convenience sample ($N=503$).

Measures and Data Analysis

To create a multi-item outcome/dependent variable, the top three nominated factors representative of good quality of life—low crime/safe neighborhoods, good schools, and good jobs/healthy economy (see Table 1)—were associated on the final set of ordinally scaled questions (see Figure 1). These questions became our dependent variables for Healthy Community. Cronbach's Alpha for the three questions was .70. The items were then summed to create the composite variable, Healthy Community. As predictors, or independent variables, the other 11 questions were assessed on 5-point scales (1= *strongly agree* to 5 = *strongly disagree*) and were reverse scored each so that higher responses reflected more agreement with the question.

Table 1 Top Ten Healthy Community Factors (N=503) <i>(each participant nominated three)</i>		
Response Option	N	%
1. Low Crime/Safe Neighborhoods	230	46
1. Good Schools	230	46
2. Good Jobs/Healthy Economy	194	39
3. Good Place to Raise Children	128	25
3. Access to Healthcare	128	25
4. Strong Family Life	106	21
5. Religious/Spiritual Values	102	20
6. Clean Environment	90	18
7. Healthy Behaviors/Lifestyles	87	17
8. Affordable Housing	53	11
<i>Note.</i> 85% selected one of the top three; 23% selected both of the top two.		

Figure 1

QUALITY OF LIFE QUESTIONS	Strongly Yes (1)	Yes (2)	Neutral (3)	No (4)	Strongly No (5)
<i>*IV: Are you satisfied with the quality of life in our community? (Consider your sense of safety, well being, participation in community life and associations, etc.)</i>	O	O	O	O	O
Are you satisfied with the health care system in the community? (Consider access, cost, availability, quality, and options in health care).	O	O	O	O	O
DV: Is this community a good place to raise children? (Consider school quality, day care, after school programs, recreation, etc.)	O	O	O	O	O
<i>*IV: Is this community a good place to grow old? (Consider elder-friendly housing, transportation to medical services, churches, shopping; elder day care, social support for the elderly living alone, meals on wheels, etc.)</i>	O	O	O	O	O
DV: Is there economic opportunity in the community? (Consider locally owned and operated business, jobs with career growth, job training/ higher education opportunities, affordable housing, reasonable commute, etc.)	O	O	O	O	O

DV: Is the community a safe place to live? (Consider residents' perceptions of safety in the home, the workplace, schools, playgrounds, parks and the mall. Do neighbors know and trust one another? Do they look out for one another?)	O	O	O	O	O
<i>*IV: Does this community have clean air and clean water? (Consider auto emissions, mass transit, car pooling, water quality, public policy and state/county legislation).</i>	O	O	O	O	O
Do all individuals and groups have the opportunity to contribute to and participate in the community's quality of life?	O	O	O	O	O
<i>*IV: Do all residents perceive that they- individually and collectively- can make the community a better place to live?</i>	O	O	O	O	O
Is there a sufficient number of health and social services in the community?	O	O	O	O	O
Does this community offer a variety of stores convenient to meet daily needs? (Consider grocery, pharmacy, fuel, and clothing)	O	O	O	O	O
Are levels of mutual trust and respect increasing among community partners as they participate in collaborative activities to achieve shared community goals?	O	O	O	O	O
<i>*IV: Is there an active sense of civic responsibility and engagement, and of civic pride in shared accomplishments?</i>	O	O	O	O	O

Hierarchical OLS Regression Analysis was employed to find significant predictors of variance in our outcome variable, Healthy Community, with two blocks or models of predictors (see Table 2). Model 1 included the control or confounding variables age, gender, marital status, education, household income, and self-rated perceived health. Model 2 added the final set of questions and responses from the Healthy Tazewell survey.

Predictor Variable	Model One: Controls			Model Two: Predictors		
	B	SE	β	B	SE	β
Age	.17	.07	.12*	.05	.05	.03
Gender	.29	.24	.06	.16	.15	.03
Marital Status	.44	.26	.10	.28	.17	.06
Education	.09	.21	.02	.15	.14	.04
Income	.24	.10	.15*	.18	.06	.11**
Self-Rated Physical Health	.60	.13	.23***	-.07	.09	-.03
Overall QOL				.73	.10	.31**
Health Care				.12	.08	.06
Grow Old				.68	.10	.29**
Clean Air & Water				.18	.08	.08*
Support Networks				.09	.10	.04
Contribute/Participate				.08	.10	.04
Can Better the Community				.18	.09	.08*
Health/Social Svcs				-.05	.08	-.03
Stores				.03	.08	.01
Community Collaboration				.15	.11	.06
Civic Engagement/Pride				.27	.10	.12**
F?	6.78***			42.24***		
R²	.09			.65		

Note. * $p < .05$, ** $p < .01$, *** $p < .001$. Also, we ran the model with the transformed outcome and no significant differences were found.

Results

After examining the hierarchical regression analysis (see Table 2), the block of control variables in Model 1, comprising age, income, and self-rated physical health, was significant ($F\Delta = 6.78$; $p < .001$), explaining 9 percent of the variance; both age and self-rated physical health were significantly associated with the outcome. Model 2 added the concluding set of questions from the survey as predictors. Accounting for 65 percent of the total variance in the outcome Healthy Community, questions referencing strong overall quality of life, especially living in a community that is a good place to grow old, has clean air and water, and has an active sense of civic responsibility, engagement, and pride in shared accomplishments, significantly and uniquely explained variance in the our multi-item variable, Healthy Community ($F\Delta = 42.24$; $p < .001$).

To assess for internal validity of our regression analyses, we checked for multicollinearity, using the tolerance statistic and Menard's (1995) suggestion that values below .2 are suspect; tolerances in our analysis ranged from .459 to .914. Last, we assessed for the undue influence of individual cases based on Cook's Distance greater than 1.00 (Field, 2005; Stevens, 1992). The mean Cook's Distance was .003; the minimum was .00 and the maximum was .07. Thus, we can be confident that our results are exempt of possible violations of regression analyses.

Discussion

The purpose of this study was to analyze the Community Themes and Strengths Assessment as part of step four in the MAPP process to provide Tazewell County Health Department with a means of focus when attempting to better the overall health of the community. In order to do so without direction from previous literature, research was based on finding a multi-item outcome measure representative of a healthy community. Thus, as a research question, we first investigated the most important factors of a healthy community listed by residents of Tazewell County, then used these quality of life questions to predict a multi-item outcome measure representative of a healthy community. Results revealed that questions referencing a strong overall quality of life, specifically living in a community that is a good place to grow old, has clean air and water, and has an active sense of civic responsibility, engagement, and pride in shared accomplishments are most significant in discussion of a healthy community. These residents noted “growing old”—a question which forced participants to consider elements such as elder-friendly housing, transportation to medical services, churches, and shopping (see Figure 1)—to be the most significant predictor of a healthy community.

This particular finding can be further examined by taking into account McMillan’s and Chavis’ (1986) Psychological Sense of Community (PSOC). This theory consists of four dimensions: (a) Belonging; (b) Influence; (c) Integration and Fulfillment of Needs; and (d) Shared Connections, all of which work concurrently, in accordance with underlying demographic variables, have proven useful in planning, building, and developing a healthy community (McMillan & Chavis, 1986). Based on the Psychological Sense of Community (PSOC), Obst and Smith (2002) took into account a fifth and independent dimension entitled *identification*. In their study, this dimension emerged as the strongest predictor of a satisfied psychological sense of community, taking into account consciousness of fellow members, specifically awareness of similarity with others and an acknowledged interdependence. Possibly, citizens of Tazewell highlight this independent and innovative facet of the Psychological Sense of Community (PSOC) in that an essential component to growing old, thus residing in a healthy, stable community for an extended period of time, involves interdependence and a sense of belonging—hence, identification.

In order to define a more community-wide accurate multi-item outcome variable representative of a healthy community, future research should be conducted on Tazewell County, focusing on diversity across demographics. Survey response rate and demographics resulted in questionable external validity, as 503 respondents who were well educated (61% college degree or higher) with annual household incomes higher than \$70,000 (39.5%) may not adequately represent the 135,433 Tazewell County citizens with a median income of \$54,271. As noted in previous literature on MAPP executions, differences in demographics (especially age, income, and values) impact how Public Health System interventions are agreed with and circulated (Kalos, Kent, & Gates, 2005). A deficiency of resources and lack of citizens’ sense of personal benefit are evident obstacles and barriers to MAPP implementation as cited in a qualitative study of three demographically divergent demonstration sites. One possible way to overcome such obstacles and establish community-wide involvement was seen in one particular MAPP demonstration site in which a media campaign, supported by the mayor, advertised the process as a “city-wide effort” (Pullen, Upshaw, Lesneski, & Terrell, 2005). Taking these limitations into account, spending more time, money, and planning in regards to advertising campaign will improve the community’s understanding; accordingly, citywide engagement should be a major focus when implementing the Community Themes and Strengths Assessment of MAPP in the future.

The significant factors associated with the outcome variable, Healthy Community, could be malleable tools for improving the quality of life in this population. This study analyzed county resident participant responses

regarding quality of life, suggesting that when attempting to make positive changes to the health status of the community, special attention should be paid to these three factors: a good place to grow old, has clean air and water, and has an active sense of civic responsibility, engagement, and pride in shared accomplishments.

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