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Beyond Collective Efficacy: New Brief Measures to Assess the Outer Layers of the Social Ecology

Beyond Collective Efficacy: New Brief Measures to Assess the Outer Layers of the Social Ecology

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Abstract

Introduction: Community support can be a valuable interpersonal resource anywhere, yet past research has largely been focused on adults in urban neighborhoods. Because communities are no longer solely defined by a shared physicality, we offer psychometric data on three new measures to assess other communal resources: informal community support, support for community youth, and workplace integration. **Methods:** Participants (N=1706) from a largely rural, low-income Southern region completed a computer-assisted questionnaire as part of a larger study on character development and personal strength. Ages range from 11 to 70 years old (M=29.3 years; SD=12.3 years); 63% of participants are female. **Results:** Internal consistency was good for our 3 new measures, .70 to .86 and each scale comprised a single factor in exploratory factor analyses. Correlations with collective efficacy (convergent validity) were all positive and significant and range from .18 to .57. Correlations with measures of subjective well-being range from .21 to .29, and correlations with mental and physical health outcomes ranged from .14 to .23. **Implications:** Studying communities in addition to individuals and families can potentially shed light on the variety of ways in which community ties can foster well-being and resilience. The three new measures presented here assess important but understudied aspects of communities.

Keywords

Questionnaires, Community, Social Support, Youth, Workplace, Social Ecology, Collective Efficacy

1. Introduction

For several decades, researchers and scholars have been advocating for a shift away from psychology's historical focus on individuals to one that more explicitly takes account of the individual in the broader social ecological context (Bronfenbrenner, 1974). Supportive, positive community interactions have been linked to a wide variety of benefits, ranging from fostering a sense of belonging (McMillan & Chavis, 1986) to improved physical and mental health (Davidson & Cotter, 1991; Gravel & Béland, 2005; Pickett & Pearl, 2001). Conversely, communities lacking positive social support have been shown to contribute to feelings of isolation, alienation, and depression (Sarason, 1974). Despite

this recognition of the importance of communities and the broader social network to individual well-being, the outer layers of the social ecology remain understudied (Banyard, 2011). Part of the reason for the lack of empirical attention to community-level constructs is the relative paucity of measures to assess them. This study presents psychometric data for three brief new measures designed to measure key aspects of the community: the Informal Community Support Scale, the Support for Community Youth Scale, and the Workplace Integration Scale.

2. Defining “Community”

The construct of community can be defined in many ways. Research in sociology, community psychology and other

areas often uses objective indicators of community as a geographic place such as neighborhood, census tract, city or town. Indeed characteristics of community using this definition have produced some interesting results such as links between census level income and violence (Edwards, Mattingly, Dixon, & Banyard, 2014). However, community is also about the connections and sense of belonging that individuals feel, not just about geographic boundaries and the demographics associated with them. It also includes relationships and connections among members, resources and activities available to community members, and norms (Leventhal & Brooks-Gunn, 2008; Swisher, 2008).

Psychological sense of community, a term introduced by McMillan and Chavis in (1986), remains one of the most comprehensive constructs related to perceptions of community. Their definition focuses on an individual's sense of connection to community, which has four main components: membership, influence, fulfillment of needs, and shared emotional connection. When psychological sense of community is strong, a community member will feel a sense of investment and belonging and the belief that members matter to both each other and the group. Collectively, members feel that their needs will be met through their commitment to the group. Perhaps one of the reasons that this aspect of community has persisted as a primary definition in the field of community psychology is its flexibility. According to this theory, communities are not confined to blocks or neighborhoods or even a physical locale. Instead, communities can define a variety of settings, including schools (Bateman, 2002), churches (Wald, Owen, & Hill, 1988), and the workplace (Burroughs & Eby, 1998; Klein & D'Aunno, 1986). Although many of these concepts are more than 30 years old, the idea that communities can be built upon abstract concepts (such as skills in the workplace, for instance) rather than merely a shared physicality is becoming increasingly relevant in an era of rapid technological advancement that allows people to foster connections and establish shared identities in more ways than ever before. Psychological sense of community has been found to be related to various facets of well-being, including increased positive affect (e.g., happiness, cheerfulness), and decreased negative affect (e.g., excessive worry, sadness) (Davidson & Cotter, 1991). It remains one of the most prevalent conceptualizations of community.

Another common way of conceptualizing community is collective efficacy. Sampson, Raudenbush, and Earls (1997) introduced the concept of collective efficacy, which is characterized by both a mutual trust and a willingness to intervene for the common good. Sampson, Raudenbush and Earls (1997) proposed that there were social and organizational neighborhood characteristics beyond mere demographic composition that could account for variation in the crime rates in neighborhoods; residents could use social control to help realize common goals and values by regulating deviant behavior. In this sense, collective efficacy is one measure of an informal, communal institution in place to supervise and monitor residents' behavior (particularly

youth). This construct has also been related to bystander intervention to prevent relationship violence, and to lower levels of bullying and youth violence (Edwards *et al.*, 2014; Sapouna, 2010).

3. Theoretically-Related Concepts

Previously measured aspects of community are important because they have been linked to outcomes. In particular, Davidson and Cotter (1991) explored connections between sense of community and subjective well-being, which they defined as having three components: positive affect, negative affect, and perceived efficacy. Somebody who scored high on their measures of subjective well-being would exhibit high levels of positive emotions (e.g., being basically happy, excited, cheerful), low levels of negative emotions (e.g., worry, anger, sadness), and would feel relatively competent and in control of important aspects of their lives (perceived efficacy). These outcomes were related to sense of community in three different samples, with particularly pronounced effects for happiness. Following this model, we included several well-established measures of various well-being outcomes (including life regard, self-concept, satisfaction with life, and mental health outcomes) as a means of providing construct validity. We propose that people who feel a strong attachment to their community will also score higher on measures of well-being.

Community ties have not only been linked to increased well-being and positive mental health outcomes (Caplan, 1974; Gravel & Béland, 2005; Hudnall Stamm, 2007), but also to improved physical health (Kobetz, Daniel, & Earp, 2003; Patrick & Wickizer, 1995; Pickett & Pearl, 2001). In their critical review of neighborhood effects on health outcomes, Pickett and Pearl (2001) include availability and accessibility of health services, infrastructure deprivation (lack of parks or stores selling healthy food options, for instance), attitudes towards health and related behaviors, and a lack of social support as primary ways in which neighborhoods influence the health of their members. For example, Robert (1998) found significant neighborhood effects on self-reported health ratings of chronic disease, and Shouls, Congdon, and Curtis (1996) found a significant association between neighborhood deprivation and risk of long-term illness. Given the well-established relationship between neighborhood and physical health outcomes, we included a self-report measure of health as another measure of construct validity, and we expect that higher average scores on the four community measures will correlate with better physical health.

4. Existing Measures in the Community Literature

A range of measures of aspects of community exist, most of which assess individuals' attitudes towards and perceptions of their communities. These measures are often

focused on beliefs and feelings of belonging, and although they contribute an important piece to an understanding of the role communities play in one's well-being, they do not offer much in the way of behavioral data, making it difficult to measure observable, objective impacts on individuals. On the other side of the spectrum, purely objective measures, such as census data, do not provide insight into the dynamic and meaningful ways that individuals interact with their communities.

The Neighborhood Collective Efficacy Index (Sampson et al., 1997) includes measures of both informal social control and social cohesion and trust, reflecting MacMillan and Chavis' (1986) values of influence and a shared connection. The authors found evidence that the collective efficacy of residents is a critical means of inhibiting violence in communities, regardless of demographic composition, thus it has generated considerable interest over the last decade. As a potentially malleable factor, collective efficacy has more generally led to increased interest in the outer layers of the social ecology and their potential as targets of prevention and intervention.

Sarason's (1974) concept of "sense of community" has received considerable study in some sub-disciplines of psychology and several measures have been developed to capture this concept. For instance, Doolittle and MacDonald's (1978) Sense of Community Scale was designed to study the relationship between communicative behaviors and feelings of belonging to a community. Similarly, Chavis and Wandersman (1990) developed the Sense of Community Index (SCI) as an attitudinal measure of an individual's psychological sense of community, and it remains a commonly used measure when assessing community constructs. It comprised of four subscales: membership, influence, reinforcement of needs, and shared emotional connection. The Brief Sense of Community Scale (Peterson, Speer, & McMillan, 2008) uses simple, positively-worded items to assess these same four dimensions. In conjunction with the Sense of Community Index (Chavis & Wandersman, 1990), Perkins, Florin, Rich, Wandersman and Chavis (1990) also included the Neighboring Behavior scale as a complementary behavioral measure. Although it is a useful addition to existing measures, this measure confuses opportunity and availability of support. For instance, one item asks if, within the past year, participants have been asked to help a neighbor in an emergency; if the answer is no, we do not know whether this indicates a lack of available support or simply that there were no emergencies. There has also been interest in people's perceptions of more specific settings, such as sense of community in schools (Bateman, 2002) or churches (Miers & Fisher, 2002).

5. Gaps in the Understanding of Communities

Most of the above measures focus on broad, general descriptions of communities (primarily neighborhoods) with

items like "My neighbors and I want the same things from the block" (Perkins et al., 1990) or "I belong in this neighborhood" (Peterson et al., 2008). Although sometimes more specific questions are developed for settings such as schools (Bateman, 2002) or the workplace (Burroughs & Eby, 1998), the potential for variation in support across other aspects of community remains understudied. These measures provide an element of specificity above and beyond that found in most community measures and allow for greater insight into various (sometimes understudied) community influences; however, there are only a few such specific measures, and those are largely limited to the school and work settings.

The items in our new brief measures capture various general facets of community ties highlighted in past work, including tangible and intangible ways in which members of a neighborhood may use communal ties to fulfill their needs, shared connections, membership, and influence. However, these new measures also include a focus on two particular areas, one of which is support for community youth. Adolescence is not only a critical time for achieving many developmental milestones, it is also the peak risk period for many adversities (Hamby, Finkelhor, & Turner, 2012). Although the school setting is very important to youth, other domains are also important and considerable youth victimization takes place away from school (Finkelhor, 2011). However, there have been few attempts to assess support for community youth outside of the school system.

Another neglected domain is the workplace. Although the workplace plays a central role in the lives of many working adults (Klein & D'Aunno, 1986; Royal & Rossi, 1996), its influence has been largely overshadowed in the community literature by the focus on neighborhoods. Given that social communication in the workplace has been shown to foster mutually-supportive networks among coworkers (Kirmeyer, 1988) and that people may develop a sense of belonging based upon their participation in a particular type of work (Price, 1985), it follows logically that the workplace might be an interpersonal resource for employed adults. However, there have been few attempts to measure the ways in which adults use their workplaces as a means of communal support.

What is more, a great deal of attention has been given to tangible and intangible social support. These measures, particularly satisfaction with one's level of social support, have long been linked to more positive mental and physical health outcomes for individuals across the lifespan (Cohen & Syme, 1985; Dunst, Trivette, & Cross, 1986; Letvak, 2002; Uchino, Cacioppo, & Kiecolt-Glaser, 1996). However, measures of social support tend to focus on one's immediate dyadic relationships within one's social network – family, friends. Less studied are the tangible and intangible support provided by neighborhoods (Walsh, O'Shea, Scharf, & Shucksmith, 2014). Supportive neighbors can be a valuable resource for many people, and it often goes beyond intangible support by providing a wide range of material goods, from the clichéd cup of sugar to loaning tools to babysitting. This support could extend even broader: a

“neighborhood watch” program might contribute to overall feelings of safety or security, even if individuals do not regularly interact with one another. Support that spans the outer layers of the social ecology can be a valuable, yet understudied, resource.

6. The Current Study

Community ties are an important resource for many people, and a sense of belonging to a community has been linked to several positive outcomes, including improved well-being (cite), and increased mental and physical health (Caplan, 1974; Pickett & Pearl, 2001; Robert, 1998). Likewise, the outer layers of the social ecology have recently been studied as a potential focus for preventive efforts (Banyard, Plante, & Moynihan, 2004; Bronfenbrenner, 1974). However, measures that solely focus on a spatially-defined neighborhood (or block) do not accurately capture many important aspects of a community, and people can potentially use other communities, such as the workplace, as sources of strength as well. To provide the most complete picture of how people use community resources to promote resilience and positive outcomes, we propose using measures that capture people’s views of the neighborhoods and their workplace; furthermore, to better understand community impacts, we propose that measures should assess adolescents as well as adults.

With this in mind, we aimed to make measures as applicable and accessible as possible so that we could include youth and community members who are not proficient readers in our sample. We chose to use widely-used and well-established items from The Collective Efficacy Index (Sampson et al., 1997) alongside three new measures adapted from a questionnaire used by the U.S. Air Force (2011). When adapting measures for this study, we aimed to integrate the strengths of these existing scales (brevity, specificity of items, variety of dimensions, etc.) while introducing items that would be more appropriate for our community sample. Most of these scales were designed to be used in largely urban environments, and this feature is reflected in the wording of several of the items. However, the community sample in this study is primarily drawn from rural regions of the South, where many members have low literacy or do not speak English as their native language, so we did not feel that any of these scales completely filled the needs of this study. Much less is known about community perceptions and well-being in rural areas, and we hope that these new measures, when used in conjunction with existing measures, can provide insight into different ways in which communities ties benefit residents.

The purpose of this paper is to present preliminary psychometric data for these new community measures. Convergent validity is presented as correlations with other measures of theoretically-related constructs, including items from the well-established Collective Efficacy Index (Sampson et al., 1997), that have been pulled from the existing literature, including measures of well-being, mental health, and physical health outcomes.

7. Methods

7.1. Participants

As part of a larger survey on character development and personal strength, 1706 individuals from largely rural areas of Southern states participated in the study. Participants ranged in age from 11-70 years old ($M=29.3$ years; $SD=12.3$ years), and 63% were female. 47% of participants reported at least part-time employment outside the home, and 61% reported no education beyond the high school/GED lever. Our sample was largely drawn from rural regions, with 23.2% of participants living in a rural area with a population of less than 2,500, 35.5% living in a small town with a population of 2,500 to 20,000, and 18.7% living in a town with a population of 20,000 to 100,000. For total household income in 2012, 39% of participants reported less than \$20,000 per year; 36% reported between \$20,000 and \$50,000 per year; 25% reported more than \$50,000. Most participants were White, non-Hispanic (75 %), 12% were Black/African American, 7% were Hispanic or Latino/a, 4% were multiple races, 1% were American Indian or Alaska Native, 0.4% were Asian, and .5% were Native Hawaiian or Pacific Islander.

7.2. Procedure

A broad range of advertising techniques were used to recruit participants. The majority (83%) of participants were recruited from various events throughout the community, such as local music and arts festivals and county fairs. Many participants (13%) were also recruited through word of mouth; other advertising methods included newspaper, mailers, and radio ads which account for 4% of participants. This breadth of recruitment strategies allowed us to reach the community and collect data from segments of the population that are seldom included in psychology research. Despite our best efforts to offer an easy-to-use interface (an audio CASI using SNAP 10 software), simplify wording of items, and offer an oral interview, we observed that some interested individuals were limited by low literacy and/or computer skills and were not always able to participate. Therefore, this sample best represents community members with at least a 6th grade reading proficiency and some experience using a computer. All participants received a \$30 Walmart gift card.

7.3. Measures

Collective Efficacy Index. The Neighborhood Collective Efficacy Index (Sampson et al., 1997) is a widely-used measure of community, as it is designed to measure both informal social control and social cohesion. We selected 4 of the 10 original items, and changed the answer categories from a 5-point Likert scale to a 4-point Likert scale to be more consistent with other scales in the study. Scores were a pro-rated mean. In our sample, internal consistency (coefficient alpha) was .57.

Informal Community Support. Five items from the 2011 Air Force Community Assessment (U.S. Air Force, 2011)

measure both tangible and intangible community support. Wording was simplified to better suit a community with low literacy. For example, an original item reads “at your current location, are there friends, neighbors, co-workers, or relatives outside your home who would provide transportation if you needed it,” but we instead presented the item as “Where you live now, are there friends or neighbors who would give you a ride if you needed it?” Participants answered on a 4-point Likert scale. In our sample, internal consistency (coefficient alpha) was .86. See Appendix for items.

Support for Community Youth. To better capture the idea that community support for youth is different than community support for adults, we adapted two items from the 2011 Air Force Community Assessment (U.S. Air Force, 2011) to specifically measure support for youth. We made minor wording edits to broaden applicability to any community (not just a military sample). For instance, the first item originally read, “in this community, youth are supported and valued by base leadership.” Instead, items now read “in this community, youth (between the ages of 10-18) are supported and valued by community leaders,” and “in this community, youth (between the ages of 10-18) have interesting and meaningful ways to spend their time.” Participants answered on a 4-point Likert scale, and scores were a pro-rated mean. In our sample, internal consistency (coefficient alpha) was .70. See Appendix for items.

Workplace Integration. To measure cohesiveness of the workplace and how well participants are able to integrate work into their personal life, we adapted 4 items from the 2011 Air Force Community Assessment (U.S. Air Force, 2011). We adapted wording to better suit a non-military population and to encompass a broader range of professions. For example, one item originally read “I enjoy discussing my unit organization with people outside of it,” but we instead presented it as “I enjoy discussing my job with people outside of it.” These items were only asked of participants who reported that they were currently employed outside of the home. Participants answered on a 4-point Likert scale, and scores were a pro-rated mean. In our sample, internal consistency (coefficient alpha) was .84. See Appendix for items.

Subjective Well-Being. Five items from the Satisfaction with Life Scale (Diener, Emmons, Larsen, & Griffin, 1985) were used to assess a person’s subjective well-being and general satisfaction with life. Participants answered on a 4-point Likert scale, and scores were a prorated mean. In our sample, internal consistency (coefficient alpha) was .87. As there is a well-established relationship between neighborhood and well-being, this measure was included as a means of demonstrating convergent validity.

Life Regard Index. Five items from the Life Regard Index (Battista & Almond, 1973) measured a person’s positive regard for life, an essential component of well-being. We made minor wording edits to better accommodate participants with low literacy. For example, one item was originally worded as “I get so excited by what I’m doing that I find new stores of energy I didn’t know that I had,” but

instead we simplified wording to “I get so excited by what I’m doing that I find energy I didn’t know that I had.” Participants answered on a 4-point Likert scale, and scores were a pro-rated mean. In our sample, internal consistency (coefficient alpha) was .75. This measure was included as a means of demonstrating construct validity.

Self-Concept. To measure self-esteem and a sense of mastery, four items were included from the National Survey of Children’s Exposure to Violence (NatSCEV) (Turner et al., 2012). These items were originally adapted from the Rosenberg Self-Esteem Scale (Rosenberg, 1965) and the Pearlin-Schooler Mastery Scale (Pearlin & Schooler, 1978) and combined to make a brief assessment of self-concept. Participants answered on a 4-point Likert scale, and scores were a pro-rated mean. In our sample, internal consistency (coefficient alpha) was .88. This scale was included as a measure of psychological well-being to assess construct validity.

Mental Health. The Trauma Symptom Checklist for Children (Briere, 1996) was included in NatSCEV (Finkelhor, 2011), and we chose the ten items that loaded the strongest onto a single factor based on a factor analysis of that data. We assessed the following symptoms: loneliness, sadness, irritability, feeling bad, guilt, worry, dissociation, intrusive thoughts, and bad memories. Participants answered on a 4-point Likert scale, and scores were a pro-rated mean. In our sample, internal consistency (coefficient alpha) was .90. This scale was included as a means of convergent validity.

Health-Related Quality of Life. Five items were adapted from the “Healthy Days Measure” used by the U.S. Centers for Disease Control and Prevention (Centers for Disease Control and Prevention (CDC), 2000) to measure physical health. For one item, participants rated their overall health (“excellent,” “very good,” “good,” “fair,” or “poor”), and for the remaining items participants indicated how many days (roughly) during the past month their health had been limiting. Scores were a prorated mean. In our sample, internal consistency (coefficient alpha) was .82.

8. Results

8.1. Factor Analysis

To better assess these brief and adapted versions of existing measures, we conducted exploratory factor analyses using a principle axis extraction. In order to maintain consistency with past work on collective efficacy and social support and to explore the adequacy of assessment of each of our theoretical constructs, we factor analyzed each scale separately. For the 4 items from the Collective Efficacy Index, the first factor accounted for 45% of the variance, and a second factor accounted for 25% of the variance. For factor loading, means and standard deviations of individual items, see Table 1.

For the remaining 3 scales, a single factor model provided the best solution to the data for each scale. For the Informal Community Support Scale items, the first factor accounted

for 64.2% of the variance with an eigenvalue of 3.21, and all items loaded on this single factor with loading of .70 or higher. For the Support for Community Youth Scale, the first factor accounted for 76.8% of the variance with an eigenvalue of 1.54, and both items loaded at .73. For the Workplace Integration Scale items, the first factor accounted for 68.5% of the variance with an eigenvalue of 2.74, and all items loaded on that factor at .60 or higher. Table 2 presents factor loadings, means, and standard deviations for individual items in each scale. Coefficient alpha (internal consistency) was marginal for collective efficacy at .57, but was good to very good for the three new measures, ranging from .70 to .86.

8.2. Correlations Among Community Measures and with Other Theoretically-Related Constructs

Correlations among all community measures were positive and significant. Correlations ranged from .25 to .57. These positive correlations with the well-established Collective Efficacy Index provide evidence of convergent validity for the three new measures. Among the relationships with collective efficacy, the strongest observed were informal community support ($r=.57$) and support for community youth ($r=.43$). Among the three new measures, the strongest relationship observed was between the two forms of social support, $r=.52$. Generally, the relationships with the workplace integration items were lower, with correlations ranging from .25 to .28. See Table 3 for correlations. Although these correlations are moderate in strength, they are low enough to indicate that these various scales are tapping into somewhat different aspects of community characteristics. The highest shared variance (R^2) is 32% for the association between collective efficacy and informal community support, indicating that these constructs are related but distinct.

All correlations between the various community measures and the measures of well-being and health outcomes were positive and significant. The associations with the measure of subjective well-being were similar across community measures, all falling in the range of .21 to .29. The weakest observed relationships were those between the community measures and mental health outcomes; correlations with the mental and physical health outcomes ranged from .14 to .20. See Table 3 for correlations.

9. Discussion

Community ties, including collective efficacy and a psychological sense of community, have long been recognized as affecting individual well-being in a variety of ways, including subjective well-being and mental and physical health (Caplan, 1974; Davidson & Cotter, 1991; Kobetz *et al.*, 2003; Kullberg, Timpka, Svensson, Karlsson, & Lindqvist, 2010; Macintyre, Ellaway, & Cummins, 2002; McMillan & Chavis, 1986; Pretty, Andrews, & Collett, 1994). The findings from this both study align with the existing literature and provide good initial support for the reliability

and validity of three new scales measuring informal community support, support for community youth, and workplace integration.

The positive, significant correlations with the well-established Collective Efficacy Index offer a measure of convergent validity. Likewise, positive, significant correlations with various established measures of well-being such as the Life Regard Index (Battista & Almond, 1973), the Satisfaction with Life Scale (Diener *et al.*, 1985), the Trauma Symptom Checklist for Children (Briere, 1996) and the Healthy Days Module (Centers for Disease Control and Prevention (CDC), 2000) also offer construct validity. Reliability was also generally high for the new measures (alphas range from .70 to .86).

These correlational findings were anticipated, given the well-established literature on community influences. Bronfenbrenner (1974, 2009) pioneered the idea that psychology should focus not only on the individual but also on the social contexts in which individuals are situated. He contended that people's development is in large part influenced by larger communal settings, such as school, work, or culture, and there are many different levels of environmental influences; positive communal influences fostered positive development and outcomes in individuals. That same year, Sarason (1974) proposed that people need to feel a sense of belonging, what he coined "psychological sense of community," and he contended that it was one of the most critical things to an individual's well-being. The positive, significant correlations with the various measures of psychological and subjective well-being support these existing foundations--higher scores on all four of the community measures included here related to higher scores on all of the measures of well-being.

9.1. Strengths and Limitations

A particular strength to this study is the sample, which is varied by gender, age, income, and several other variables. It is drawn from an understudied, rural region of Appalachia, and the items in each new measure were tailored to be appropriate and applicable for this community sample. For example, all adapted items are straight-forward with no negative wording or reverse scoring, which we felt was particularly important for a population with relatively low literacy and educational attainment. The simple wording of items allowed a greater and more representative portion of the population to partake in the study. Likewise, all items are written to be applicable to participants of all ages (although the workplace integration items are only asked of participants who report current employment); the inclusion of adolescents also allows for a more complete understanding of the influence of communities.

Despite the efforts made to offer the most inclusive questionnaire possible, it was observed during data collection that some participants were limited by low literacy and/or limited computer use. All participants were offered the option to have the survey read aloud to them (and answer verbally), and an audio version of the computer-assisted questionnaire

was also made available. Likewise, research assistants offered computer assistance to anybody who appeared to be uncomfortable or unfamiliar with the laptop; touch screen devices were also offered as an alternative. However, due to these limitations, our sample is most representative of community members who have at least a 6th grade reading proficiency and had at least a basic familiarity with computers.

9.2. Implications

In general, community measures can be considered more distal, indirect influences on well-being and mental health (Hamby & Grych, 2013). They contribute to a general atmosphere that can promote or discourage well-being and seldom serve as direct, proximal causes. Thus, one would not necessarily expect these associations to be as strong as those for some mechanisms that operate at the individual and family levels. However, because community characteristics theoretically impact every member of a community, they potentially have a cumulative impact that can go far beyond the effects of factors influencing only a few individuals. These community characteristics included in this study are also potentially malleable characteristics.

These types of malleable characteristics can be a target for prevention and intervention efforts (Bronfenbrenner, 1974). Brief, easily-understood measures such as the three presented

in this study can contribute to the existing research by providing insight into the dynamic relationship between an individual and their community (or, communities). The more we understand about these reciprocal impacts, the more effectively we may design and implement community-level strategies, be they to reduce violence and crime (Perkins et al., 1990; Sampson et al., 1997; Wandersman & Florin, 2003), to promote psychological well-being (Davidson & Cotter, 1991), or to promote physical health (Malmström, Sundquist, & Johansson, 1999). Community-based strategies potentially offer a wide variety of benefits, and if we further our understanding of the unique ways in which people use their community—their neighborhood, their workplace, or their school—as an interpersonal resource, we may be more effective in promoting well-being on more than just an individual-level.

9.3. Conclusion

The study of all layers of the social ecology has been hampered by the limited availability of measures that go beyond a focus on individuals. These brief questionnaires, which measure several different aspects of the outer layers of the social ecology, hold promise to advance our understanding of all of the resources that people turn to when they cope with adversity and strive for well-being.

Table 1. Factor Loadings, Means and Standard Deviations for Individual Items in the brief, adapted Collective Efficacy Index

Item	Factor 1	Factor 2	M	SD
Neighbors would take action if children were disrespecting an adult	.570	.043	3.01	.99
Neighbors would take action if fight broke out	.594	.162	3.44	.87
People in neighborhood can be trusted	.482	.558	3.15	.97
People in neighborhood don't get along	.035	.553	3.26	.95

Notes: N=1639

Table 2. Factor Loadings, Means and Standard Deviations for Individual Items in the Informal Community Support Scale, the Support for Community Youth Scale, and the Workplace Integration Scale

Item	Factor 1	M	SD
<i>Informal Community Support</i>			
People in neighborhood help others	.72	3.18	.92
People in neighborhood talk or visit with others	.70	3.05	.95
Neighbors would let you borrow something	.79	3.43	.88
Neighbors would give you a ride	.79	3.37	.88
Neighbors would care for children in an emergency	.72	3.45	.85
<i>Support for Community Youth</i>			
Youth are supported and valued by leaders	.73	2.93	.96
Youth have interesting ways to spend time	.73	2.71	1.00
<i>Workplace Integration</i>			
People at my job stick together	.84	3.22	.88
People at my job work as team	.81	3.37	.79
I enjoy discussing my job	.60	3.15	.99
I feel like "part of the family" at my workplace	.80	3.25	.95

Notes: Informal Community Support: N=1602. Support for Community Youth: N=1650. Workplace Integration items were only asked of participants who reported either part-time or full-time employment; N=756.

Table 3. Correlations with Other Theoretically-Related Measures

Scale	Collective Efficacy	Informal Community Support	Support for Community Youth	Workplace Integration
Collective Efficacy Index	1	-	-	-
Informal Community Support	.57***	1	-	-
Support for Community Youth	.43***	.52***	1	
Workplace Integration	.25***	.28***	.25***	1
<i>Theoretically-Related Measures</i>				
Satisfaction with Life Scale	.25***	.28***	.29***	.26***
Life Regard Index	.23***	.26***	.26***	.22***
Self-Concept	.22***	.26***	.23***	.21***
Mental Health Outcomes	.18***	.17***	.15***	.14***
Health-Related Quality of Life	.20***	.19***	.19***	.23***

Notes: Workplace Integration items were only asked of participants who reported either part-time or full-time employment; N ranged from 763 to 791. All other N's ranged from 1614 to 1680.

* $p < .05$; ** $p < .01$; *** $p < .001$

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Appendix

All items are answered on a 4-point Likert scale ("Mostly true," "Somewhat true," "A little true," or "Not true"). Workplace Integration items are only asked of participants who report current employment outside the home.

Informal Community Support Items

- People in my neighborhood offer help to one another in times of need.
- People in my neighborhood talk to or visit with their neighbors.
- Where you live now, are there friends or neighbors who would let you borrow something such as tools, chairs, or food?
- Where you live now, are there friends or neighbors who would give you a ride if you needed it?
- Where you live now, are there friends or neighbors who would take care of someone's children in an emergency?

Support for Community Youth Items

- In this community, youth (between the ages of 10-18) are supported and valued by community leaders.
- In this community, youth (between the ages of 10-18) have interesting and meaningful ways to spend their time.

Workplace Integration Items

- The people at my job really stick together.
- The people at my job work together as a team.
- I enjoy discussing my job with people outside of it.

- I feel like "part of the family" at my workplace.

References

- [1] Banyard, V. L. (2011). Who will help prevent sexual violence: Creating an ecological model of bystander intervention. *Psychology of violence, 1*(3), 216.
- [2] Banyard, V. L., Plante, E. G., & Moynihan, M. M. (2004). Bystander education: Bringing a broader community perspective to sexual violence prevention. *Journal of community psychology, 32*(1), 61-79.
- [3] Bateman, H. (2002). Sense of Community in the School. In A. Fisher, C. Sonn & B. Bishop (Eds.), *Psychological Sense of Community* (pp. 161-179): Springer US.
- [4] Battista, J., & Almond, R. (1973). The development of meaning in life. *Psychiatry: Journal for the Study of Interpersonal Processes*.
- [5] Briere, J. (1996). Trauma symptom checklist for children. *Odessa, FL: Psychological Assessment Resources*, 00253-00258.
- [6] Bronfenbrenner, U. (1974). The origins of alienation. *Scientific American*.
- [7] Bronfenbrenner, U. (2009). *The ecology of human development: Experiments by nature and design*: Harvard university press.
- [8] Burroughs, S. M., & Eby, L. T. (1998). Psychological sense of community at work: A measurement system and explanatory framework. *Journal of community psychology, 26*(6), 509-532.
- [9] Caplan, G. (1974). *Support systems and community mental health: Lectures on concept development*: Behavioral Publications.
- [10] Centers for Disease Control and Prevention (CDC). (2000). Measuring Healthy Days: Population Assessment of Health-Related Quality of Life, from <http://www.cdc.gov/hrqol/pdfs/mhd.pdf>
- [11] Chavis, D. M., & Wandersman, A. (1990). Sense of community in the urban environment: A catalyst for participation and community development. *American journal of community psychology, 18*(1), 55-81.

- [12] Cohen, S. E., & Syme, S. (1985). *Social support and health*: Academic Press.
- [13] Davidson, W. B., & Cotter, P. R. (1991). The relationship between sense of community and subjective well-being: A first look. *Journal of community psychology*, 19(3), 246-253.
- [14] Diener, E., Emmons, R. A., Larsen, R. J., & Griffin, S. (1985). The satisfaction with life scale. *Journal of personality assessment*, 49(1), 71-75.
- [15] Doolittle, R. J., & MacDonald, D. (1978). Communication and a sense of community in a metropolitan neighborhood: A factor analytic examination. *Communication Quarterly*, 26(3), 2-7.
- [16] Dunst, C. J., Trivette, C. M., & Cross, A. H. (1986). Mediating influences of social support: Personal, family, and child outcomes. *American Journal of Mental Deficiency*.
- [17] Edwards, K. M., Mattingly, M. J., Dixon, K. J., & Banyard, V. L. (2014). Community Matters: Intimate Partner Violence Among Rural Young Adults. *American journal of community psychology*, 1-10.
- [18] Finkelhor, D. (2011). Prevalence of child victimization, abuse, crime, and violence exposure. *Violence against women and children: Mapping the terrain*, 1, 9-30.
- [19] Gravel, R., & Béland, Y. (2005). The Canadian Community Health Survey: mental health and well-being. *The Canadian Journal of Psychiatry/La Revue canadienne de psychiatrie*.
- [20] Hamby, S., Finkelhor, D., & Turner, H. (2012). Teen dating violence: Co-occurrence with other victimizations in the National Survey of Children's Exposure to Violence (NatSCEV). *Psychology of violence*, 2(2), 111.
- [21] Hamby, S., & Grych, J. (2013). The Web of Violence.
- [22] Hudnall Stamm, B. (2007). Strengthening Rural Communities for Better Mental Health. *Journal of Rural Mental Health*, 31(3), 1-5.
- [23] Kirmeyer, S. L. (1988). Observed communication in the workplace: Content, source, and direction. *Journal of community psychology*, 16(2), 175-187.
- [24] Klein, K. J., & D'Aunno, T. A. (1986). Psychological sense of community in the workplace. *Journal of community psychology*, 14(4), 365-377.
- [25] Kobetz, E., Daniel, M., & Earp, J. (2003). Neighborhood poverty and self-reported health among low-income, rural women, 50 years and older. *Health & Place*, 9(3), 263-271.
- [26] Kullberg, A., Timpka, T., Svensson, T., Karlsson, N., & Lindqvist, K. (2010). Does the perceived neighborhood reputation contribute to neighborhood differences in social trust and residential wellbeing? *Journal of community psychology*, 38(5), 591-606.
- [27] Letvak, S. (2002). The importance of social support for rural mental health. *Issues in Mental Health Nursing*, 23(3), 249-261.
- [28] Leventhal, T., & Brooks-Gunn, J. (2008). Neighborhood residence and youth development: Empirical findings and theoretical models. *The Prevention Researcher*, 15(2), 3-6.
- [29] Macintyre, S., Ellaway, A., & Cummins, S. (2002). Place effects on health: how can we conceptualise, operationalise and measure them? *Social science & medicine*, 55(1), 125-139.
- [30] Malmström, M., Sundquist, J., & Johansson, S.-E. (1999). Neighborhood environment and self-reported health status: a multilevel analysis. *American Journal of Public Health*, 89(8), 1181-1186.
- [31] McMillan, D. W., & Chavis, D. M. (1986). Sense of community: A definition and theory. *Journal of community psychology*, 14(1), 6-23.
- [32] Miers, R., & Fisher, A. (2002). Being Church and Community. In A. Fisher, C. Sonn & B. Bishop (Eds.), *Psychological Sense of Community* (pp. 141-160): Springer US.
- [33] Patrick, D. L., & Wickizer, T. M. (1995). Community and health. *Society and health*, 46-92.
- [34] Pearlin, L. I., & Schooler, C. (1978). The structure of coping. *Journal of Health and Social Behavior*.
- [35] Perkins, D. D., Florin, P., Rich, R. C., Wandersman, A., & Chavis, D. M. (1990). Participation and the social and physical environment of residential blocks: Crime and community context. *American journal of community psychology*, 18(1), 83-115.
- [36] Peterson, N. A., Speer, P. W., & McMillan, D. W. (2008). Validation of a brief sense of community scale: Confirmation of the principal theory of sense of community. *Journal of community psychology*, 36(1), 61-73.
- [37] Pickett, K. E., & Pearl, M. (2001). Multilevel analyses of neighbourhood socioeconomic context and health outcomes: a critical review. *Journal of epidemiology and community health*, 55(2), 111-122.
- [38] Pretty, G. M., Andrews, L., & Collett, C. (1994). Exploring adolescents' sense of community and its relationship to loneliness. *Journal of community psychology*, 22(4), 346-358.
- [39] Price, R. H. (1985). Work and community. *American journal of community psychology*, 13(1), 1-12.
- [40] Robert, S. A. (1998). Community-level socioeconomic status effects on adult health. *Journal of Health and Social Behavior*.
- [41] Rosenberg, M. (1965). Society and the adolescent self-image.
- [42] Royal, M. A., & Rossi, R. J. (1996). Individual-level correlates of sense of community: Findings from workplace and school. *Journal of community psychology*, 24(4), 395-416.
- [43] Sampson, R. J., Raudenbush, S. W., & Earls, F. (1997). Neighborhoods and violent crime: A multilevel study of collective efficacy. *Science*, 277(5328), 918-924.
- [44] Sapouna, M. (2010). Collective efficacy in the school context: does it help explain victimization and bullying among Greek primary and secondary school students? *Journal of interpersonal violence*, 25(10), 1912-1927.
- [45] Sarason, S. B. (1974). *The psychological sense of community: Prospects for a community psychology*: Jossey-Bass.
- [46] Shouls, S., Congdon, P., & Curtis, S. (1996). Modelling inequality in reported long term illness in the UK: combining individual and area characteristics. *Journal of epidemiology and community health*, 50(3), 366-376.
- [47] Swisher, R. (2008). Neighborhoods and youth: How neighborhood demographics and social processes affect youth outcomes. *The Prevention Researcher*, 15(2), 7-11.

- [48] Turner, H. A., Finkelhor, D., Ormrod, R., Hamby, S., Leeb, R. T., Mercy, J. A., & Holt, M. (2012). Family context, victimization, and child trauma symptoms: variations in safe, stable, and nurturing relationships during early and middle childhood. *American journal of orthopsychiatry*, 82(2), 209.
- [49] U.S. Air Force. (2011). 2011 U.S. Air Force Community Assessment: Survey data codebook. Lackland Air Force Base, TX.
- [50] Uchino, B. N., Cacioppo, J. T., & Kiecolt-Glaser, J. K. (1996). The relationship between social support and physiological processes: a review with emphasis on underlying mechanisms and implications for health. *Psychological bulletin*, 119(3), 488.
- [51] Wald, K. D., Owen, D. E., & Hill, S. S. (1988). Churches as political communities. *American political science review*, 82(02), 531-548.
- [52] Walsh, K., O'Shea, E., Scharf, T., & Shucksmith, M. (2014). Exploring the Impact of Informal Practices on Social Exclusion and Age-Friendliness for Older People in Rural Communities. *Journal of Community & Applied Social Psychology*, 24(1), 37-49. doi: 10.1002/casp.2176
- [53] Wandersman, A., & Florin, P. (2003). Community interventions and effective prevention. *American Psychologist*, 58(6-7), 441.