

Journal of Rural and Community Development

Rural Community Stress: A Review of the Literature

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Citation:

Beehler, S., Corcoran, F., & Michaels, C. (2023). Rural community stress: A review of the literature. *The Journal of Rural and Community Development*, 18(1), 32–50.

Publisher:

Rural Development Institute, Brandon University.

Editor:

Dr. Doug Ramsey

Open Access Policy:

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Abstract

Rural communities experience substantial levels of stress. Although these communities show remarkable resilience, rural stress is an important, understudied area for research, especially during COVID-19, which will have lasting effects on communities under stress. The purpose of this paper is to review the literature on rural community stress to identify areas for future research. We reviewed the literature using the PsychInfo, Social Services Abstracts, and PubMed databases and included US articles that were published since 2008 and identified rural stress at a community level. We included 50 sources. The stress experienced by diverse rural communities can be understood by examining the interactions among the economic, built/natural, and sociocultural environments of each community. Leveraging rural community-level strengths like social cohesion (e.g., support networks, community centers, places of worship) and the natural environment (e.g., parks, trails, outdoor physical activity) can prevent and reduce community stress by building resilience. Research on community protective factors is key to alleviating stress and building capacity for resilience; however, it is largely absent from the rural literature. Efforts should be made to understand which strengths and capacities are most conducive to alleviating stress in individual rural communities. Community-level stress will be a lasting concern for rural communities, particularly since the emergence of COVID-19. Rural communities can prevent community-level stressors and mitigate harmful effects by bolstering resilience and using trauma-informed approaches where needed. Policy and structural changes are needed to rectify longstanding inequities that perpetuate rural community stress.

Keywords: rural, community stress, community resilience, protective factors, capacity building

Stress dans les communautés rurales : une revue de la littérature

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Résumé

Les communautés rurales connaissent des niveaux de stress considérables. Bien que ces communautés fassent preuve d'une résilience remarquable, le stress rural est un domaine de recherche important et sous-étudié, en particulier pendant la COVID-19, qui aura des effets durables sur les communautés en situation de stress. Le but de cet article est d'examiner la littérature sur le stress des communautés rurales afin d'identifier les domaines de recherche future. Nous avons examiné la littérature à l'aide des bases de données PsychInfo, Social Services Abstracts et PubMed et inclus des articles américains publiés depuis 2008 et ayant identifié le stress rural au niveau communautaire. Nous avons inclus 50 sources. Le stress subi par diverses communautés rurales peut être compris en examinant les interactions entre les environnements économiques, bâtis/naturels et socioculturels de chaque communauté. Tirer parti des forces de la communauté rurale comme la cohésion sociale (par exemple, les réseaux de soutien, les centres communautaires, les lieux de culte) et l'environnement naturel (par exemple, les parcs, les sentiers, l'activité physique en plein air) peut prévenir et réduire le stress communautaire en renforçant la résilience. La recherche sur les facteurs de protection communautaires est essentielle pour atténuer le stress et renforcer les capacités de résilience ; cependant, il est largement absent de la littérature rurale. Des efforts doivent être faits pour comprendre quelles sont les forces et les capacités les plus propices à la réduction du stress dans les communautés rurales individuelles. Le stress au niveau communautaire sera une préoccupation durable pour les communautés rurales, en particulier depuis l'émergence de la COVID-19. Les communautés rurales peuvent prévenir les facteurs de stress au niveau communautaire et atténuer les effets néfastes en renforçant la résilience et en utilisant des approches tenant compte des traumatismes, le cas échéant. Des changements politiques et structurels sont nécessaires pour corriger les inégalités de longue date qui perpétuent le stress des communautés rurales.

Mots clés : rural, stress communautaire, résilience communautaire, facteurs de protection, renforcement des capacités

1.0 Introduction

Rural communities and families show remarkable resilience despite substantial levels of stress. Many stressors result from conditions that uniquely or disproportionately impact rural areas, including population loss associated with city expansion, employment instability, healthcare workforce shortages, systematic disinvestment and isolated geography (Ajilore & Willingham, 2019; Hamilton et al., 2008; Hansen, 1987; Pender et al., 2019). At present, rural residents are at greater risk than urban residents for COVID-19 hospitalizations (Kaufman et al., 2020), which will strain the capacity of rural hospitals and tax other community resources. Further, research suggests that the COVID-19 pandemic will result in long-term increases in mental illness (Gao et al., 2020; Jalloh et al., 2018; Lai et al., 2020) amplified by economic hardship (Nandi et al., 2012) and ongoing stressors (Galea et al., 2020). In short, rural community stress is likely to be high for many years to come. Such stress is experienced differently by different subgroups (e.g., Native Americans, elderly, children), and many solutions have focused on reducing individual and family stress or improving coping skills among individuals living under stressful conditions. Although helping individuals manage stress is important, it does not alter a community's long-term ability to manage stress or prevent additional stressors from accumulating. A growing body of research shows that building community capacity to handle and prevent stress decreases individual stress as well (Chandra et al., 2018).

This paper presents a review of the literature on rural community stress to inform community leaders aiming to strengthen community capacity and build resilience. This manuscript is a modified and condensed version of a related report produced as a Children's Mental Health eReview for the University of Minnesota Extension Children, Youth & Family Consortium in January 2021 (<https://extension.umn.edu/mental-health/childrens-mental-health-ereviews>) as well as through the UMN Digital Conservancy (<https://conservancy.umn.edu/handle/11299/218195>). The eReview has been disseminated to extension professionals and affiliated rural community practitioners, but not to research/academic audiences. Rural communities are diverse demographically, economically, socially, and naturally. For example, several different dimensions have been identified as critical for understanding variation between rural areas (e.g., amenity availability, growth trajectory, poverty, and resource-dependence; Hamilton et al., 2008). As such, different communities experience different kinds of stressors (Hamilton et al., 2008; Stedman et al., 2004). Further, the same factor (e.g., population change, growth, or loss) may impact communities differently depending on their pre-existing economic, material, institutional and natural resources. Our aim was to identify key factors in the literature to consider when assessing and alleviating rural community stress whilst acknowledging their diversity.

2.0 Rural Community Stress: A Review of the Literature

Rural community leaders, including extension professionals, are responding to the emerging mental health crisis among farmers and other rural residents (Inwood et al., 2019). How can recent research on community-level stress within rural communities support a focus not just on individuals, but on entire communities? How can leaders better understand the large-scale influences of societal pressures and challenges on their communities? In this paper, we seek to equip these leaders

by first defining community-level stress and differentiating it from individual stress, and then offering a framework for understanding recent literature on community stress with a focus on how it manifests in rural areas. Specific attention is paid to rural community protective factors and strengths. Because research on community-level stress is nascent and largely focused on urban communities, we draw from several different models and areas of research to characterize the nature of rural community stress.

2.1 What is Rural?

The research literature contains varied definitions of what constitutes rural, complicating comparisons across studies and slowing the development of a solid evidence base. For this review, we use the Office of Management and Budget (2010) designation of non-metropolitan when describing rural communities, which excludes counties having one or more densely settled urban areas with a 50,000+ population, as well as outlying counties where 25% of the population commutes to or from a metropolitan county. This definition excludes all urban and suburban areas with populations of 50,000+, and it includes over 90% of North America's land mass but only 14% of the US population (Cromartie, 2018; Hales et al., 2014).

2.2 What is Community Stress?

Community-level stress has been defined as widespread disturbance generated from a series of stressful events and circumstances that impact the majority of a community (Hobfoll et al., 1995; Jerusalem et al., 1995). Community stress can be acute (e.g., after a natural or man-made disaster) or chronic (e.g., intergenerational poverty). It is *not* the aggregate or sum of individual stress, but occurs through the interaction of pre-existing community contextual conditions (e.g., housing policies) with stressors at the community level (e.g. economic instability, poor health, population loss) (Chandra et al., 2018). Community stressors fall into three main categories: economic, built/natural and sociocultural (Chandra et al., 2018; Prevention Institute, n.d.; Pinderhughes et al., 2015). These stressors impact community members directly (e.g., financial stress from job loss) and indirectly by affecting pathways to success and the mental health of adults, children, and families. Stressors interact with one another, creating heightened risk for emotional, behavioral, and substance use disorders and impacting a community's ability to respond to disasters and acute shocks (e.g., natural disasters, health crises). The impact of stressors on a community depends in large part on the resources available to mitigate them.

Each community possesses *strengths* that allow it to alleviate stress, collectively adapt and build resilience (Chandra et al., 2018). Strengths that contribute to effective stress management and prevention include social cohesion, shared experience, organized and responsive NGOs and government agencies, communication and education (Chandra et al., 2018). For example, some communities are socially cohesive and interconnected, providing social networks that offer support and buffer the negative effects of stress. Others have ties to responsive governmental agencies or access to unique resources (e.g., services, local businesses, nature) that actively help alleviate chronic stress and respond to acute shocks. *Community resilience* is the capacity to adapt successfully through multiple processes to challenges that threaten community function and survival (Chandra et al., 2010). Resilient communities build from their strengths and draw upon them in times of stress. Notably, community resilience is dynamic, resulting from

interactions within and between systems, and has a cascading effect across systems (e.g., individuals, generations) (Masten & Motti-Stefanidi, 2020). When stress accumulates, community strengths may be overwhelmed, disrupting resilience and damaging basic community functioning (Pinderhughes et al., 2015).

Additionally, community stress may or may not be traumatic. *Community trauma* can result from stress that disrupts social networks and decreases efficacy and capacity to collectively identify and address structural problems (Pinderhughes et al., 2015; Weinstein et al., 2014). Community trauma does not have to directly affect every community member equally; trauma affects many in the community indirectly through impacts on individuals and institutions over time. This can lead to high levels of trauma in a community and the eventual erosion of social relationships and prosocial norms (Pinderhughes et al., 2015). Borrowing from research on “adverse childhood experiences,” researchers have framed community trauma as the result of “adverse community experiences” (Pinderhughes et al., 2015). Symptoms of community trauma fall into the same three categories mentioned above (economic, built/natural, sociocultural). Overall, many rural communities have less capacity for addressing community trauma than urban areas (James et al., 2022). To build community resilience, it is crucial to first examine and treat community trauma (Weinstein et al., 2014). Communities must first be provided with the support and tools to heal and rebuild a sense of community before additional stressors can be addressed (Falkenburger et al., 2018; Weinstein et al., 2014). For example, Native American communities have experienced historical trauma or widespread, cumulative trauma experienced across generations (Duran & Duran, 1995; Brave Heart, 2003; Michaels, 2010). Addressing the trauma associated with genocide, forced migration, settler colonialism, and cultural decimation will better prepare a community to build community resilience.

3.0 Methods

To guide our literature review, we drew from existing conceptual frameworks on community stress (Chandra et al., 2018), adverse community experiences (Pinderhughes et al., 2015) and community determinants of health equity (Prevention Institute, n.d.). Specifically, we used Chandra’s community stress framework (Chandra et al., 2018) to identify a range of factors contributing to rural stress, as well as chronic versus acute stressors. All three of these frameworks include some grouping of factors in three categories central to understanding community stress and trauma: economic, built/natural, and sociocultural. These categories form the structure of our study.

Using this conceptualization, we conducted a literature search using keywords related to rural areas (e.g., rural, remote, non-metropolitan, micropolitan), community stress (e.g., community, stress, trauma), and community risk/protective factors (e.g., risk, protective, alleviating, exacerbating, strengths, assets, resilience), as well as keywords relevant to the three categories of the rural environment (e.g., economic, built and natural, sociocultural) to find literature in alignment with our conceptualization. We primarily used three databases (PsychInfo, Social Services Abstracts and PubMed) and searched for empirical articles, literature reviews and reports published from 2008 to 2020 in the United States. The year 2008 aligns with economic changes associated with the Great Recession, which widely impacted economic growth across the US, particularly in rural areas where economic recovery has continued to lag behind urban areas (Hertz et al., 2014). We purposely used a

broad definition of rural to capture the range of existing research and discuss rurality along a continuum. Thus, we included articles that described a focus (exclusively or in part) on “rural”; some included no explicit definition of rural and others relied on different categorization schemes (e.g., “non-metropolitan”, “micropolitan”, “remote”, “frontier”). References were also reviewed for additional literature. Of the sources that fit our criteria, 19 were peer-reviewed empirical articles, 11 were peer-reviewed literature/conceptual reviews, 9 were governmental reports, 9 were agency/organizational reports, and 2 were books.

Within each source, we looked first for factors described in each of the three conceptual categories (economic, built/natural, sociocultural). Next, we categorized them as risk or protective factors, resulting in master lists of risk and protective factors in each of the three categories across articles. Formal qualitative coding was not used, but risk and protective factors were recorded in an ongoing way with references attached for later summary and synthesis.

4.0 Results

4.1 How is Rural Community Stress Unique?

The primary differences between rural and other community-level (e.g., urban, suburban) stress are (a) the degree of stress experienced, and (b) the resources available to cope with, reduce and prevent it. For example, rural and urban communities both experience unemployment and poverty, but unemployment in rural areas is higher and occurs for different reasons (Pender et al., 2019). Rural unemployed also have fewer resources available and may cope differently with life stress (e.g., less disclosure, more internalization) due to stigma and shame (Banyard et al., 2019; Rhodes, 2012; Skoufalos et al., 2017; Young et al., 2012). Further, the unique interactions between stressors in rural areas can undermine community strengths, lessening the buffering effects of protective factors. For instance, rural communities economically dependent on the natural environment are vulnerable to financial stress, especially during extreme weather conditions and natural disasters (Houghton et al., 2017; Pender et al., 2019). High levels of stress as well as fear or trauma from such acute shocks can disrupt family functioning (Gewirtz et al., 2008; Hafstad et al., 2010) and undermine social cohesion (Chandra et al., 2018; Pinderhughes et al., 2015). Rural communities also experience significant stress during public health crises like COVID-19 for several reasons, including: greater vulnerability to illness and economic downturn, limited access to quality healthcare, and isolation and quarantine, which prevent communities from coming together for support and education (Lakhani et al., 2020; Peters, 2020). Below we present an overview of stressors and protective factors that affect rural communities in the three categories previously described: economic, built/natural, and sociocultural.

4.2 Economic Rural Environments

Rural areas face unique economic challenges. Poverty and unemployment have been higher in rural versus urban US counties since the 1960s, and rates are highest in the most isolated rural communities (Pender et al., 2019). Further, the rural communities experiencing chronic poverty are clustered in regions with long histories of rapidly changing and burdened economies (Farrigan & Parker, 2012) and are more likely to be home to racial and ethnically diverse populations (Cromartie, 2018; Hamilton et al., 2008). Economic and environmental shifts (e.g., recession, commodity prices)

may strongly impact rural communities that depend on natural resources (Mueller, 2021) and rely more on occupations that do not require higher-level education. Rural counties have experienced no employment growth since 2008 and saw a 0.4% decline in employment throughout the past decade (Pender et al., 2019). Accordingly, the lack of job opportunities is a primary concern among rural residents (Hamilton et al., 2008). Economic conditions that contribute to community stress strongly impact Native communities, where limited employment opportunities exist (Ulrich-Schad, 2013) and poverty is high (23.7% vs 13.1% across the country) (United States Census Bureau, 2018).

Local employment markets and population loss partly explain rural unemployment trends. The rural workforce is largely dependent on environmental conditions and natural resources, and many jobs are based in agricultural, mining and forestry industries (Ajilore & Willingham, 2019; Pfefferbaum et al., 2013; Economic Research Service, 2019). For example, agriculture accounts for the greatest share of employment in rural areas (around 17%) (Ajilore & Willingham, 2019; Pfefferbaum et al., 2013). These jobs tend to be unstable, however, as they are heavily impacted by unpredictable weather and market conditions. Farming and mining incomes peaked in 2013 but are now at an all-time low (Pender et al., 2019). Manufacturing, another industry important to the rural economy, has seen job losses due to globalization and economic restructuring (Low, 2017). Complicating this are mixed patterns of migration. For example, even as many rural counties see an influx of 30-49-year-olds (Asche, 2020), high levels of out-migration among younger residents leave behind older and more vulnerable individuals who are less likely to participate in the labor force or invest in the economy (Hamilton et al., 2008; Pender et al., 2019). These economic conditions create and exacerbate community-level stress in rural areas.

Educational opportunities also affect rural community stress, as education is a key determinant of health and economic outcomes (Prevention Institute, n.d.). The percentage of rural adults with a high school diploma is high and similar to urban adults (85% vs 87%) (Marré, 2017). However, fewer rural than urban adults pursue higher education (19% versus 33% have a bachelor's degree or higher) and this gap has been growing throughout the past decade (Marré, 2017). In addition, rural communities comprise 79% of 'low education' counties (i.e., >20% population without a high school degree) and appear to be disproportionately at risk for associated problems. For example, compared to similar urban counties, rural counties with reduced educational attainment have relatively higher poverty (adult and child) and unemployment rates (Marré, 2017).

The economic environment of a rural community is shaped by the nature of its workforce, dependence on natural resources, longstanding economic policies, and long-term investment in education and employment infrastructures. The level of community stress depends on how well communities build on local strengths to target underlying structural factors and build community capacity to offer quality education and employment opportunities.

4.3 Built/Natural Rural Environments

The low density and remote nature of rural areas can result in geographic isolation and disconnection from larger infrastructures such as public transportation, road quality, health care, and support services. Community members often have to travel long distances to meet basic needs like healthy food, prescription medication, and quality education (Skoufalos et al., 2017). Quality health care is another barrier, and

it requires even longer travel to find specialized care. In comparison to urban areas that have over 30 physicians and 26 health specialists per 10,000 people, rural areas only have 13 physicians and 3 specialists for the same number of people (Hing, 2014). In a crisis, emergency response times are significantly lengthened in most rural areas, with rural residents having to wait double the response time of urban residents (Mell et al., 2017). These and other challenges associated with rural geographies contribute to disparities in health, decreased well-being and increased community stress. For Native Americans, who report strong ties to the natural environment (Ulrich-Schad, 2013), forced migration and land loss have resulted in the loss of cultural identity and historical trauma (Walls & Whitbeck, 2014).

Rural communities are often viewed as socially interconnected, but residents can experience isolation from others as well as mainstream institutions. Rural social isolation can result from a lack of community infrastructure and the distribution of available resources (Lanier & Maume, 2009). For example, urban areas are more likely to have restaurants, bars, and recreation centers (e.g., movie theaters, bowling alleys) where residents can socialize. Rural residents often have to drive long distances in order to access social and health-related services. Further, isolation may be intensified by limited access to the internet and telephone services. Approximately 50% of rural residents live without high-speed broadband access, compared to only 4% of urban residents (Federal Communications Commission, 2015). Isolation due to inequitable internet access can inhibit community cohesion and exacerbate community stress (Chandra et al., 2018).

Despite many areas of natural beauty, access to rural outdoor activities is sometimes difficult when rural public space is not well-defined (Lo et al., 2017; Umstadd Meyer et al., 2016). For instance, public parks, clearly defined trails, sidewalks and bicycle paths are limited in some rural areas (Carter et al., 2019), especially agricultural communities with fewer tourists. On average, more rural than urban residents feel unsafe from traffic while walking or biking due to poorer quality sidewalks and high traffic speeds (Lo et al., 2017). Access to nature supports the development of social connections, physical activity and positive health outcomes because residents have more opportunities to build healthy lifestyles (Perrin et al., 2016). For example, obesity is around 10% higher in rural versus urban areas, where it is more difficult to exercise outdoors safely and access to high-quality grocery stores is limited (Meit et al., 2014; Tripp & Choi, 2014).

Weather conditions, including climate change and natural disasters, can also increase stress disproportionately in rural communities. Rural areas account for the majority of US landmass (Hales et al., 2014), and rural economies tend to rely on natural resources and industries (e.g., farming, mining, forestry) vulnerable to extreme weather (e.g., droughts, winter storms) and exacerbated by climate change. Even though both rural and urban areas experience climate change, climatic processes manifest and impact different areas differently (Houghton et al., 2017). For example, heavy rainfall can flood rural areas faster than urban areas because of underinvestment in quality drainage systems and low rural water basins (Houghton et al., 2017). Flooding creates additional transportation challenges as rural areas have fewer alternative routes. Unfortunately, climate change appears to be accelerating, and thus rural climate-related stress likely will continue to increase (Hales et al., 2014). Policies and community interventions that reflect the diversity of rural communities are necessary to address specific impacts of climate change on different areas (Houghton et al., 2017).

4.4 Sociocultural Rural Environments

Rural America is increasingly diversifying (Lichter & Johnson, 2020), and thus caution is required when generalizing across rural areas, which may perpetuate stereotypes that contribute to rural stress (Ajilore & Willingham, 2019). Nonetheless, important demographic and social trends have been identified in the literature. For example, rural communities are aging, which has led to demographic shifts in labor force participation (Pender et al., 2019; Weirich & Benson, 2019). This can also result in high concentrations of residents with disabilities and chronic illnesses who are dependent on services (Chandra et al., 2018). Vulnerable populations often are at a disadvantage in terms of available services, resources, and even social activities, contributing to the accumulation of rural community stress (Skoufalos et al., 2017). Native American communities have sustained a deep loss of cultural identity due to genocide, forced migration and forced assimilation (e.g., through forced attendance at boarding schools designed to eliminate traditional Native ways of life) (Walls & Whitbeck, 2014; Hinton et al., 2014).

The histories and cultures of rural communities give rise to stigma and (often warranted) distrust of institutions (Hochschild, 2018), which means that social problems common across the US may be particularly challenging to address. For example, abuse of prescription opioids has led to community-wide epidemics that have unique manifestations in rural areas (Young et al., 2012). Access to prescription opioids is increasing in rural communities and residents do not have the same resources (e.g., rehabilitation centers for addiction) to deal with widespread opioid epidemics (Rosenblatt et al., 2015). The risk for domestic violence is also higher in rural households and may be heightened by limited social support networks and longer geographical distances between neighboring houses (Edwards, 2015; Lanier & Maume, 2009). Deaths by suicide are consistently higher in rural versus urban communities, particularly in the most isolated communities that rely on the agricultural industry (Hedegaard et al., 2018). Firearms are more frequently used in rural versus urban suicide deaths (Mohatt et al., 2020), and gun ownership and community norms around gun use contribute to this. Substance misuse, domestic violence and suicide at high levels all cause psychological distress on individual, family, and community levels.

4.5 Rural Community Protective Factors/Strengths

Research on rural communities tends to highlight problems and deficits rather than strengths. However, rural communities are resilient and possess many strengths that can be leveraged to reduce community stress. A recent report identified a number of these strengths at individual (e.g., civic & community engagement, entrepreneurship), organizational (e.g., small businesses, schools, faith-based organizations) and community levels (Meit, 2018). At the community level, resources located in rural areas even when not controlled locally (e.g., system-owned hospitals)—can be local strengths if they contribute to community development, economic development, and social connection. In addition to being places of natural social interaction, schools, businesses, and places of worship often serve as central gathering places for local action. Within land-grant institutions, Extension educators, who often work within the rural community in which they live, are often viewed as rural strengths (Meit, 2018). Educators work with community members to identify strengths as well as needs and goals of the community, develop

partnerships with community members and organizations, and strengthen rural community development through education, university research and leadership.

Another powerful rural strength is the natural environment. Natural resources support agriculture, tourism and industry, bolstering rural economic vitality (Meit, 2018) and providing avenues for outdoor activities, such as hiking, fishing, and boating. Native Americans have especially strong ties to the land and view stewardship and protection of natural resources as critical to the preservation of Native culture (Ulrich-Schad, 2013). Although no known research has examined how natural environments alleviate community-level stress, time spent in nature predicts psychological and physical well-being (Lawton et al., 2017; Shanahan et al., 2016) and can buffer the impact of life stress on children (Corraliza et al., 2012; Li & Sullivan, 2016; Van den Berg et al., 2010) and improve positive moods (Li et al., 2018).

Rural community culture and history shape existing strengths and how they can be harnessed to reduce community stress and promote wellness (Meit, 2018). For example, culture and history give rise to values (e.g., strong family support systems and a sense of community, self-reliance and independence) that can be rural community strengths. For Native Americans, unique cultures and value systems provide a number of strengths and opportunities for positive youth development through connection with their culture, language and history (Ulrich-Schad, 2013). In addition, limited resources often spark innovation and creativity in rural communities. Many rural residents feel deep ties to where they grew up and have a strong sense of pride in their rural communities. This supports a culture of cooperation and social cohesion, in which rural residents are willing to help one another and take pride in the community. Social cohesion and shared experience are “two powerful mitigating or mediating factors that determine how well a community handles acute shocks” (Chandra et al., 2018, p. 55). Socially cohesive communities with strong networks have been shown to recover in the face of stress and disaster while exhibiting lower levels of community stress. Because of their small size, many rural areas are homogenous, foster similar values and are comprised of extended family members (Rigg et al., 2018). This type of social cohesion helps normalize healthy behaviors (e.g., physical activity) while discouraging risky behaviors (e.g., substance abuse, violence, suicide) (Chandra et al., 2018). In fact, a study found that the relationship between social support and life satisfaction was stronger for rural versus urban areas (Evans, 2009). Rural communities, therefore, have potential to create strong social networks that can buffer the negative effects of stress.

5.0 Directions for Future Research

The current review highlights several challenges facing rural communities. With the ongoing COVID-19 pandemic, community stress has increased, and many rural communities do not have adequate resources available. At the same time, many rural communities are leveraging existing resources in creative ways, providing a natural experiment that researchers can use to understand what allows some communities to recover, adapt and thrive when others cannot. Future research would benefit from identifying local strengths and capacities unique to different communities, as well as when and how communities can activate or leverage them for stress prevention and reduction. These strengths may be particularly important for vulnerable subgroups who are disproportionately impacted by historical trauma (e.g., Native Americans) or high levels of community stress (e.g., children and elderly). It is important to note that every community possesses its own unique stressors and

strengths, and that the same stressors in certain communities can be strengths in others. For instance, social networks in one community can encourage risky behaviors like smoking and substance use, whilst in other communities they can buffer the negative effects of stress and promote healthy behaviors like exercise. Thus, rural community stress is shaped by interactions among economic, built/natural, and sociocultural environments over time. It is critical to understand how historical and structural conditions (e.g., racism and oppressive policies) interact with acute stressors (e.g., COVID-19) to limit or augment community capacity to prevent and treat stress. Ameliorating and preventing rural community stress requires strategies that identify local stressors as well as existing and potential resources that can be harnessed to support structural change and build community capacity and resilience.

Strategies to enhance community resilience do not necessarily target stress directly but aim to reshape community conditions and resources, including those that promote community healing. When communities can actively adapt to circumstances, they will likely thrive and minimize lasting harm from external stressors. There are no “one size fits all” programs to build community resilience because successful, sustainable efforts need to be tailored to meet local needs, fit available resources, and build on existing strengths. However, the literature describes common features across different approaches, including collaborative assessment, planning, implementation, and sustainability of strategies or initiatives to enhance community resilience along one or more dimensions. We identified four approaches to building community resilience: one comes from disaster prevention and recovery (Pfefferbaum et al., 2013), one aims to build health equity (Prevention Institute, 2013), and two were specifically designed for rural communities (Hegney et al., 2008; Rural Community Development Corporation of California, 2020). They each have different toolkits, materials, and frameworks to help communities make structural changes and build resilience.

Finally, it is important to consider how trauma is present because communities experiencing high levels of trauma are unlikely to benefit from traditional development or resilience-building efforts (Pinderhughes et al., 2015). Since community trauma disrupts social networks and decreases a community’s ability to take collective action, trauma-informed approaches to building community resilience (e.g., Trauma-Informed Community Building) may be necessary to restore a sense of community, ensure positive interpersonal interactions and develop a shared long-term vision (Pinderhughes et al., 2015; Weinstein et al., 2014).

6.0 Conclusion

Although rural areas can experience high levels of stress, an overemphasis on deficits and disparities hampers understanding of the ways in which rural communities actively manage and prevent stress. More research is needed to understand which strengths and capacities are most conducive to alleviating stress in rural communities shaped by unique and varied economic, built/natural, and sociocultural environmental contexts. An asset-based approach to reducing community-level stress is particularly important when addressing the long-term effects of COVID-19 and will provide critical information into how rural communities recover, adapt, and thrive.

References

- Ajilore, O., & Willingham, C. Z. (2019, July 17). *Redefining rural America*. Center for American Progress. <https://www.americanprogress.org/issues/economy/reports/2019/07/17/471877/redefin-rural-america/>
- Asche, K. (2020). *2020 state of rural Minnesota report*. Center for Rural Policy and Development. <https://www.ruralmn.org/2020-state-of-rural-minnesota-report/>
- Banyard, V. L., Edwards, K. M., Moschella, E. A., & Seavey, K. M. (2019). “Everybody’s really close-knit”: Disconnections between helping victims of intimate partner violence and more general helping in rural communities. *Violence Against Women*, 25(3), 337–358. <https://doi.org/10.1177/1077801218768714>
- Brave Heart, M. Y. H. (2003). The historical trauma response among Natives and its relationship with substance abuse: A Lakota illustration. *Journal of Psychoactive Drugs*, 35(1), 7–13. <https://doi.org/10.1080/02791072.2003.10399988>
- Carter, W. M., Morse, W. C., Brock, R. W., & Struempfer, B. (2019). Improving physical activity and outdoor recreation in rural Alabama through community coalitions. *Preventing Chronic Diseases*, 16, 1–6. <https://doi.org/10.5888/pcd16.190062>
- Chandra, A., Acosta, J., Meredith, L. S., Sanches, K., Howard, S., Uscher-Pines, L., Williams, M., & Yeung, D. (2010). *Understanding community resilience in the context of national health security*. Santa Monica, CA: RAND Corporation.
- Chandra, A., Cahill, M., Yeung, D., & Ross, R. (2018). *Toward an initial conceptual framework to assess community allostatic load*. RAND Corporation. https://www.rand.org/pubs/research_reports/RR2559.html
- Corraliza, J. A., Collado, S., & Bethelmy, L. (2012). Nature as a moderator of stress in urban children. *Procedia - Social and Behavioral Sciences*, 38, 253–263. <https://doi.org/10.1016/j.sbspro.2012.03.347>
- Cromartie, J. (2018). *Rural America at a glance: 2018 edition*. United States Department of Agriculture. <https://www.ers.usda.gov/webdocs/publications/90556/eib-200.pdf?v=6530.6>
- Duran, E., & Duran, B. (1995). *Native American postcolonial psychology*. SUNY Press. <https://doi.org/10.13140/RG.2.2.25055.25769>
- Economic Research Service. (2019). *Atlas of rural and small-town America*. <https://www.ers.usda.gov/data-products/atlas-of-rural-and-small-town-america/>
- Edwards, K. M. (2015). Intimate partner violence and the rural–urban–suburban divide: Myth or reality? A critical review of the literature. *Trauma, Violence, and Abuse*, 16(3), 359–373. <https://doi.org/10.1177/1524838014557289>
- Evans, R. J. (2009). A comparison of rural and urban older adults in Iowa on specific markers of successful aging. *Journal of Gerontological Social Work*, 52(4), 423–438. <https://doi.org/10.1080/01634370802609197>

- Falkenburger, E., Arena, O., & Wolin, J. (2018). *Trauma-informed community building and engagement*. Urban Institute. <https://www.urban.org/sites/default/files/publication/98296/trauma-informed-community-building-and-engagement.pdf>
- Farrigan, T., & Parker, T. (2012, December 5). *The concentration of poverty is a growing rural problem*. United States Department of Agriculture. <https://www.ers.usda.gov/amber-waves/2012/december/concentration-of-poverty>
- Federal Communications Commission. (2015). *FCC finds U.S. broadband deployment not keeping pace*. <https://www.fcc.gov/document/fcc-finds-us-broadband-deployment-not-keeping-pace>
- Galea, S., Merchant, R. M., & Lurie, N. (2020). The mental health consequences of COVID-19 and physical distancing. *JAMA Pediatrics*, 180(6), 817. <https://doi.org/10.1001/jamainternmed.2020.1562>
- Gao, J., Zheng, P., Jia, Y., Chen, H., Mao, Y., Chen, S., Wang, Y., Fu, H., & Dai, J. (2020). Mental health problems and social media exposure during COVID-19 outbreak. *PLOS ONE*, 15(4), e0231924. <https://doi.org/10.1371/journal.pone.0231924>
- Gewirtz, A., Forgatch, M., & Wieling, E. (2008). Parenting practices as potential mechanisms for child adjustment following mass trauma. *Journal of Marital and Family Therapy*, 34(2), 177–192. <https://doi.org/10.1111/j.1752-0606.2008.00063.x>
- Hafstad, G. S., Gil-Rivas, V., Kilmer, R. P., & Raeder, S. (2010). Parental adjustment, family functioning, and posttraumatic growth among norwegian children and adolescents following a natural disaster. *American Journal of Orthopsychiatry*, 80(2), 248–257. <https://doi.org/10.1111/j.1939-0025.2010.01028.x>
- Hales, D., Hohenstein, W., Bidwell, M. D., Landry, C., McGranahan, D., Molnar, J., Morton, L. W., & Vasquez, M. (2014). Rural communities. In J. Melillo, T. C. Richmond, & G. W. Yohe (Eds.), *Climate change impacts in the United States* (pp. 334–349). U.S. Global Change Research Program. <https://nca2014.globalchange.gov/report/sectors/rural-communities>
- Hamilton, L. C., Hamilton, L. R., Duncan, C., & Colocousis, C. (2008). *Place matters: Challenges and opportunities in four rural Americas*. The Carsey School of Public Policy at the Scholars' Repository. <https://dx.doi.org/10.34051/p/2020.41>
- Hansen, M. S. W. (1987). On myth and reality: The stress of life in rural America. *Research in Rural Education*, 4(3), 147–150.
- Hedegaard, H., Curtin, S. C., & Warner, M. (2018). *Suicide mortality in the United States, 1999-2017*. U.S. Department of Health and Human Services. <https://www.cdc.gov/nchs/data/databriefs/db330-h.pdf>
- Hegney, D., Ross, H., & Baker, P. (2008). *Building resilience in rural communities: Toolkit*. The University of Queensland and University of Southern Queensland. https://learningforsustainability.net/pubs/Building_Resilience_in_Rural_Communities_Toolkit.pdf

- Hertz, T., Kusmin, L., Marré, A., & Parker, T. (2014). *Rural employment in recession and recovery*. United States Department of Agriculture. <https://www.ers.usda.gov/amber-waves/2014/october/rural-employment-in-recession-and-recovery/>
- Hing, E., & Hsiao, C. (2014). *State variability in supply of office-based primary care providers: United States 2012*. US Department of Health and Human Services.
- Hinton, A. L., Woolford, A., & Benvenuto, J. (Eds.). (2014). *Colonial genocide in indigenous North America*. Duke University Press.
- Hobfoll, S. E., Briggs, S., & Wells, J. (1995). Community stress and resources: Actions and reactions. In S. E. Hobfoll, & M. W. de Vries (Eds.), *NATO ASID: Vol. 80. Extreme stress and communities: Impact and intervention* (pp. 137–158). Springer, Dordrecht. https://doi.org/10.1007/978-94-015-8486-9_6
- Hochschild, A. R. (2018). *Strangers in their own land: Anger and mourning on the American right*. The New Press.
- Houghton, A., Austin, J., Beerman, A., & Horton, C. (2017). An approach to developing local climate change environmental public health indicators in a rural district. *Journal of Environmental and Public Health*, 2017, 1–16. <https://doi.org/10.1155/2017/3407325>
- Inwood, S., Becot, F., Bjornestad, A., Henning-Smith, C., & Alberth, A. (2019). Responding to Crisis: Farmer Mental Health Programs in the Extension North Central Region. *Journal of Extension*, 57(6). https://archives.joe.org/joe/2019december/pdf/JOE_v57_6rb1.pdf
- Jalloh, M. F., Li, W., Bunnell, R. E., Ethier, K. A., O’Leary, A., Hageman, K. M., Sengeh, P., Jalloh, M. B., Morgan, O., Hersey, S., Marston, B. J., Dafee, F., & Redd, J. T. (2018). Impact of Ebola experiences and risk perceptions on mental health in Sierra Leone, July 2015. *BMJ Global Health*, 3(2), 1–11. <https://doi.org/10.1136/bmjgh-2017-000471>
- James, S., Reinking, A., & Swanke, J. (2022). The impact of trauma on rural communities. In B. Kramer, & J. McKenzie (Eds.), *Children and trauma: critical perspectives for meeting the needs of diverse educational communities* (Chapter 11). Stylus Publishing, LLC.
- Jerusalem, M., Kaniasty, K., Lehman, D. R., Ritter, C., & Turnbull, G. J. (1995). Individual and community stress: Integration of approaches at different levels. In E. Hobfoll & M. W. de Vries (Eds.), *NATO ASID: Vol. 80. Extreme stress and communities: Impact and intervention* (pp. 105–129). Springer, Dordrecht. https://doi.org/10.1007/978-94-015-8486-9_5
- Kaufman, B. G., Whitaker, R., Pink, G., & Holmes, G. M. (2020). Half of rural residents at high risk of serious illness due to COVID-19, creating stress on rural hospitals. *Journal of Rural Health*, 36(4), 584–590. <https://doi.org/10.1111/jrh.12481>
- Lai, J., Ma, S., Wang, Y., Cai, Z., Hu, J., Wei, N., Wu, J., Du, H., Chen, T., Li, R., Tan, H., Kang, L., Yao, L., Huang, M., Wang, H., Wang, G., Liu, Z., & Hu, S. (2020). Factors associated with mental health outcomes among health care workers exposed to Coronavirus Disease 2019. *JAMA Network Open*, 3(3), e203976. <https://doi.org/10.1001/jamanetworkopen.2020.3976>

- Lakhani, H. V., Pillai, S. S., Zehra, M., Sharma, I., & Sodhi, K. (2020). Systematic review of clinical insights into novel coronavirus (CoVID-19) pandemic: Persisting challenges in U.S. Rural population. *International Journal of Environmental Research and Public Health*, 17(12), 4279. <https://doi.org/10.3390/ijerph17124279>
- Lanier, C., & Maume, M. O. (2009). Intimate partner violence and social isolation across the rural/urban divide. *Violence Against Women*, 15(11), 1311–1330. <https://doi.org/10.1177/1077801209346711>
- Lawton, E., Brymer, E., Clough, P., & Denovan, A. (2017). The relationship between the physical activity environment, nature relatedness, anxiety, and the psychological well-being benefits of regular exercisers. *Frontiers in Psychology*, 8(June). <https://doi.org/10.3389/fpsyg.2017.01058>
- Li, D., Deal, B., Zhou, X., Slavenas, M., & Sullivan, W. C. (2018). Moving beyond the neighborhood: Daily exposure to nature and adolescents' mood. *Landscape and Urban Planning*, 173, 33–43. <https://doi.org/10.1016/j.landurbplan.2018.01.009>
- Li, D., & Sullivan, W. C. (2016). Impact of views to school landscapes on recovery from stress and mental fatigue. *Landscape and Urban Planning*, 148, 149–158. <https://doi.org/10.1016/j.landurbplan.2015.12.015>
- Lichter, D. T., & Johnson, K. M. (2020). A demographic lifeline? Immigration and Hispanic population growth in rural America. *Population Research and Policy Review*, 39(5), 785–803. <https://doi.org/10.1007/s11113-020-09605-8>
- Lo, B. K., Morgan, E. H., Folta, S. C., Graham, M. L., Paul, L. C., Nelson, M. E., Jew, N. V., Moffat, L. F., & Seguin, R. A. (2017). Environmental influences on physical activity among rural adults in Montana, United States: Views from built environment audits, resident focus groups, and key informant interviews. *International Journal of Environmental Research and Public Health*, 14(10), 1–13. <https://doi.org/10.3390/ijerph14101173>
- Low, S. A. (2017). *Rural manufacturing at a glance*. United States Department of Agriculture. <https://www.ers.usda.gov/publications/pub-details/?pubid=84757>
- Marre, A. (2017). *Rural education at a glance*. United States Department of Agriculture. <https://www.ers.usda.gov/webdocs/publications/83078/eib-171.pdf?v=8787>
- Masten, A. S., & Motti-Stefanidi, F. (2020). Multisystem resilience for children and youth in disaster: Reflections in the context of COVID-19. *Adversity and Resilience Science*, 1(2), 95–106. <https://doi.org/10.1007%2Fs42844-020-00010-w>
- Meit, M. (2018, February). *Exploring strategies to improve health and equity in rural communities*. NORC Walsh Center for Rural Health Analysis. <https://www.norc.org/PDFs/Walsh%20Center/Final%20Reports/Rural%20Assets%20Final%20Report%20Feb%2018.pdf>
- Meit, M., Knudson, A., Gilbert, T., Yu, T.-C., Tanenbaum, E., Ormson, E., TenBroeck, S., Bayne, A., & Popat, S. (2014, October). *The 2014 update of the rural-urban chartbook*. Rural Health Reform Policy Research Center. <https://ruralhealth.und.edu/projects/health-reform-policy-research-center/pdf/2014-rural-urban-chartbook-update.pdf>

- Mell, H. K., Mumma, S. N., Hiestand, B., Carr, B. G., Holland, T., & Stopyra, J. (2017). Emergency medical services response times in rural, suburban and urban areas. *JAMA Surgery*, 152(10), 983–984. <https://doi.org/10.1001%2Fjamasurg.2017.2230>
- Michaels, C. (2010). *Historical trauma and microaggressions: A framework for culturally-based practice*. Center for Excellence in Children’s Mental Health. <http://hdl.handle.net/11299/120667>
- Mohatt, N. V., Kreisel, C. J., Hoffberg, A. S., Wendleton, L., & Beehler, S. J. (2020). A systematic review of factors impacting suicide risk among rural adults in the United States. *Journal of Rural Health*, 37(3), 565–575. <https://doi.org/10.1111/jrh.12532>
- Mueller, J. T. (2021). Defining dependence: The natural resource community typology. *Rural Sociology*, 86(2), 260–300. <https://doi.org/10.1111/ruso.12357>
- Nandi, A., Prescott, M. R., Cerdá, M., Vlahov, D., Tardiff, K. J., & Galea, S. (2012). Economic conditions and suicide rates in New York City. *American Journal of Epidemiology*, 175(6), 527–535. <https://doi.org/10.1093/aje/kwr355>
- Office of Management and Budget. (2010, June 28). *Standards for delineating metropolitan and micropolitan statistical areas*. <https://www.govinfo.gov/content/pkg/FR-2021-07-16/pdf/2021-15159.pdf>
- Pender, J., Hertz, T., Cromartie, J., & Farrigan, T. (2019). *Rural America at a glance, 2019 edition*. United States Department of Agriculture. <https://www.ers.usda.gov/webdocs/publications/95341/eib-212.pdf?v=3712.9>
- Perrin, A. J., Caren, N., Skinner, A. C., Odulana, A., & Perrin, E. M. (2016). The unbuilt environment: Culture moderates the built environment for physical activity. *BMC Public Health*, 16(1), 1–8. <https://doi.org/10.1186/s12889-016-3866-3>
- Peters, D. J. (2020). Community susceptibility and resiliency to COVID-19 across the rural-urban continuum in the United States. *The Journal of Rural Health*, 36(3), 446–456. <https://doi.org/10.1111/jrh.12477>
- Pfefferbaum, R. L., Pfefferbaum, B., Van Horn, R. L., Klomp, R., Norris, F. H., & Reissman, D. B. (2013). The communities advancing resilience toolkit (CART): An intervention to build community resilience to disasters. *Journal of Public Health Management and Practice*, 19(3), 250–258. <https://doi.org/10.1097/PHH.0b013e318268aed8>
- Pinderhughes, H., Davis, R. A., & Williams, M. (2015). *Adverse community experiences and resilience*. Prevention Institute. <https://www.preventioninstitute.org/publications/adverse-community-experiences-and-resilience-framework-addressing-and-preventing>
- Prevention Institute. (n.d.). *THRIVE: Tool for health and resilience in vulnerable environments*. <https://www.preventioninstitute.org/tools/thrive-tool-health-resilience-vulnerable-environments>
- Umstadd Meyer, R. M., Moore, J. B., Abildso, C., Edwards, M. B., Gamble, A., & Baskin, M. L. (2016). Rural active living: A call to action HHS public access. *Journal of Public Health Management & Practice*, 22(5), 11–20. <https://doi.org/10.1097/PHH.0000000000000333>

- Rhodes, B. E. (2012). Rural domestic violence: An interdisciplinary model for rural practice. *Contemporary Rural Social Work*, 4(1), Article 8. <https://digitalcommons.murraystate.edu/crsw/vol4/iss1/8>
- Rigg, K. K., Monnat, S. M., & Chavez, M. N. (2018). Opioid-related mortality in rural America: Geographic heterogeneity and intervention strategies. *International Journal of Drug Policy*, 57, 119–129. <https://doi.org/10.1016/j.drugpo.2018.04.011>
- Rosenblatt, R. A., Andrilla, H. A., Catlin, M., & Larson, E. H. (2015). Geographic and specialty distribution of US physicians trained to treat opioid use disorder. *Annals of Family Medicine*, 13(1), 23–26. <https://doi.org/10.1370/afm.1735>
- Rural Community Development Corporation of California. (2020). *Rural resilience planning process*. <https://rcdcc.org/the-process/>
- Shanahan, D. F., Bush, R., Gaston, K. J., Lin, B. B., Dean, J., Barber, E., & Fuller, R. A. (2016). Health benefits from nature experiences depend on dose. *Scientific Reports*, 6(28551), 1–10. <https://doi.org/10.1038/srep28551>
- Skoufalos, A., Clarke, J. L., Ellis, D. R., Shepard, V. L., & Rula, E. Y. (2017). Rural aging in America: Proceedings of the 2017 connectivity summit. *Population Health Management*, 20(2), 3–10. <https://doi.org/10.1089/pop.2017.0177>
- Stedman, R. C., Parkins, J. R., & Beckley, T.M. (2004). Resource dependence and community well-being in rural Canada. *Rural Sociology*, 69(2), 213–234. <https://doi.org/10.1526/003601104323087589>
- Tripp, P., & Choi, J. Y. (2014). Perceptions of childhood obesity among rural parents, teachers, and school administrators. *Journal of Family & Consumer Sciences*, 106(4), 33–39.
- Ulrich-Schad, J. D. (2013). *Rural natives' perceptions of strengths and challenges in their communities* [Issue brief]. Carsey Institute. <https://scholars.unh.edu/cgi/viewcontent.cgi?referer=&httpsredir=1&article=1189&context=carsey>
- United States Census Bureau. (2018). *Poverty status in the past 12 months*. <https://data.census.gov/cedsci/table?q=poverty&tid=ACSSST1Y2018.S1701&hidePreview=false>
- Van den Berg, A. E., Maas, J., Verheij, R. A., & Groenewegen, P. P. (2010). Green space as a buffer between stressful life events and health. *Social Science and Medicine*, 70(8), 1203–1210. <https://doi.org/10.1016/j.socscimed.2010.01.002>
- Walls, M. L., & Whitbeck, L. B. (2014). The intergenerational effects of relocation policies on indigenous families. *Journal of Family Issues*, 33(9), 1272–1293. <https://doi.org/10.1177/0192513X12447178>
- Weinstein, E., Wolin, J., & Rose, S. (2014). *Trauma informed community building: A model for strengthening community in trauma affected neighborhoods*. Health Equity Institute. <https://bridgehousing.com/PDFs/TICB.Paper5.14.pdf>
- Weirich, M., & Benson, W. (2019). Rural America: Secure in a local safety net? *Journal of the American Society on Aging*, 43(2), 40–45. <https://www.jstor.org/stable/26760113>

Young, A. M., Havens, J. R., & Leukefeld, C. G. (2012). A comparison of rural and urban nonmedical prescription opioid users' lifetime and recent drug use. *The American Journal of Drug and Alcohol Abuse*, 38(3), 220–227.
<https://doi.org/10.3109/00952990.2011.643971>