

Coping With and Adapting to COVID-19 in Rural United States and Canada

Families in Society: The Journal of Contemporary Social Services
2021, Vol. 102(1) 78–90
© The Author(s) 2021
Article reuse guidelines:
sagepub.com/journals-permissions
DOI: 10.1177/1044389420960985
journals.sagepub.com/home/fis



Donna Wang¹ , Jill M. Chonody², Kathryn Krase³,
and Leina Luzuriaga⁴

Abstract

Guidelines aimed at slowing the spread of COVID-19 resulted in major changes in people's lives. A cross-sectional online survey, completed by 1,405 adults in Canada and the United States in June 2020, found respondents from rural areas/small towns reported better coping and adjustment (i.e., less use of substances for support), less personal impact, less life disruption, and fewer challenges with transportation and health care, than urban and suburban respondents. Those in rural areas were less likely to use the newspaper, but more likely to use social media, for information. Finally, rural respondents reported higher levels of support for their national leadership's response to the pandemic. The needs and strengths of rural areas, as well as approaches to serve rural areas are discussed.

Keywords

coping, COVID-19, pandemic, crisis, rural social work

Manuscript received: July 20, 2020; Accepted: August 31, 2020

Disposition editor: David C. Kondrat

The World Health Organization (WHO) reported that as of July 19, 2020, the United States had 3,544,143 confirmed COVID-19 cases and 137,674 deaths and Canada had 109,669 cases and 8,839 deaths (WHO, 2020). The spread of the COVID-19 pandemic caused considerable alterations in people's lives worldwide, beginning in late December 2019 in China and reaching the United States and Canada in February 2020. The shutdown of businesses and schools, and the implementation of preventive measures, such as social distancing, stay-at-home orders/recommendations, and mask wearing, were fully implemented by mid-March across most of the United States and Canada.

There are serious implications for a pandemic of this magnitude, and the psychological impacts are similar to those of natural

disasters and traumatic stressors (Wang et al., 2020). How people were able to adapt to and cope with these changes, as well as the challenges that they faced are dependent on a number of considerations, including personal characteristics and environmental conditions. One potential factor that could impact adaptation

¹PhD, LCSW, professor and BSW program director, Springfield College, MA, USA

²PhD, LCSW, associate professor and MSW program coordinator, Boise State University, ID, USA

³PhD, JD, MSW, associate professor, Yeshiva University, New York, NY, USA

⁴PhD (Cand.), Yeshiva University, New York, NY, USA

Corresponding Author:

Donna Wang, Springfield College, 263 Alden Street
Brooklyn, Springfield, MA 01109-3797, USA.

Email: dr.donnawang@gmail.com

and functioning is one's geographic setting (e.g., rural, urban) as strengths and challenges exist for different geographical areas. For example, it is well noted that urban areas typically have better access to and quality of health care than rural areas (Ford, 2016; Long et al., 2018). In addition to access to and quality of health care, urban communities may offer more basic resources, such as internet availability and transportation. In large cities, such as New York City or Washington, DC, adequate public transportation systems exist, possibly eliminating the need for a car. Although there are a number of advantages present with urban living, there are also some hassles or daily irritants that could impact well-being (Lazarus, 1984). The challenges associated with living in urban areas include noise pollution, crowdedness, safety fears, and air pollution (University of Minnesota, 2015).

In addition to inferior health care, rural communities fare worse than urban areas in other areas as well. Rural areas are typically disadvantaged in terms of higher social isolation (Onitsuka, 2019) and lack of high-speed internet or unreliable services (Mitchell, 2019), both of which may play a role in their ability to be informed and adapt to COVID-19.

On the contrary, viewing rural communities from a strengths-based perspective, a number of strengths and resources emerge that result in their residents faring better during crises. Rural communities demonstrate resilience when faced with high unemployment, lower educational attainment, shortages of sustainable goods and services, and poverty (Townsend, 2010). Moreover, rural communities cultivate a strong sense of history, beneficence, purpose, autonomy, and respect for others (Fleming et al., 2018). One study showed that individuals made economic sacrifices in the form of lower wages, foregone promotions, and greater job insecurity in exchange for quality of life by returning to the rural areas in which they grew up in (von Reichert et al., 2011). Furthermore, rural areas have recently been promoted as an attractive milieu combining pleasant living conditions and interesting employment opportunities, especially in rural entrepreneurship

and services (Anthopoulos et al., 2017). It has also been found that life in rural towns (as opposed to more isolated farming communities) is associated with higher levels of perceived well-being and satisfaction than that experienced by city dwellers (Maybery et al., 2009).

How an individual responds to and copes with the various challenges associated with both urban and rural living is important, but it is necessary to understand the strengths and weaknesses of different geographical areas. Regardless of the geographical area, the reaction to crises, such as natural disasters, can cause personal, interpersonal, and environmental interruptions. Previous research suggests that some may seek positive outlets for their stress that may have beneficial effects, such as exercise (Gao et al., 2020), religion (Roman et al., 2020), or meditation/mindfulness (Behan, 2020), and for others they may seek relief through alcohol and other substances (Behan, 2020; Chodkiewicz et al., 2020; Prost et al., 2016; Richman et al., 2012; Stanton et al., 2020). Interpersonally, access to social support from friends and family can help build resilience during times of stress, and social media may also provide an outlet of support (Richardson & Maninger, 2016). Environmental interruptions can run the gamut from access to health or mental health care to food shortages to lack of electricity and other essential household services to disruptions to public transportation (Mainiero & Gibson, 2003).

When examining sources of support, adaptation, and accessing information during COVID-19, the inclusion of populations living in rural settings is essential to better understand their unique needs, challenges, and strengths. The U.S. Census Bureau approximates that 20% of the population lives in rural areas, whereas rural areas (defined by living outside of urban areas) make up almost 60% of the U.S. population (Mitchell, 2019). Research often does not give adequate voice to those who live in these areas, yet their needs and challenges may be significantly different from those residing in better-resourced areas, such as cities and suburbs. Thus, this study sought to examine how needs, coping,

and adapting differed between those in rural areas and those living in urban and suburban areas. The overall research question for this study was the following:

Research Question: Are there differences in coping and adapting to COVID-19 crisis between those living in rural and those living in urban and suburban areas?

Method

Approval of this study was received from the researchers' home institutional review boards prior to the initiation of this project. A cross-sectional design was employed using an anonymous online survey administered through Qualtrics Survey Software. Data were collected over 2 weeks in June 2020. Informed consent was outlined through the introduction to the survey tool. Completion of the survey was considered consent for participation. Survey completion took around 10 minutes.

Researchers recruited study participants through convenience and snowball sampling, using personal contacts, social media, and personal and professional networks. Additional efforts were made to reach underrepresented populations and geographic areas by targeting known contacts from those communities via email, Facebook, or instant messaging.

Thirty items were constructed by the researchers using a 6-point Likert-type scale that asked respondents to indicate their level of agreement to statements concerning the COVID-19 outbreak (1= *strongly disagree*, 6= *strongly agree*), such as "My life was significantly disrupted by the COVID-19 outbreak" and "I experienced challenges related to childcare during the COVID-19 outbreak."

Respondents were also asked a series of demographic questions including age (in total years), gender identity, race and ethnicity, political ideology identification, educational attainment, number of children living in the home, age categories of children living in the home, number of adults living in the home, state/province, and their geographic setting.

Respondents selected the category(ies) that best matched their gender identity. Choices

included "female," "male," "trans male/trans man," "trans female/trans woman," "gender-queer/gender non-conforming/agender," and "do not identify with any of the above." Gender identity was reclassified into three categories (i.e., female/male/other identities), as appropriate to meet assumptions of category size necessary for statistical testing and/or appropriate to evaluate a particular research question or test a particular hypothesis.

Race/ethnicity was asked by offering respondents the opportunity to identify with one, or more, of the following response options: American Indian, Alaska Native, First Nations; Asian; Black or African American; Hispanic, Latino, or Spanish Origin; Middle Eastern or North African; Native Hawaiian or Other Pacific Islander; White; and other. Based on distribution of responses, categories were collapsed into Asian, Black, Hispanic, Middle Eastern, and other. An additional category, "Multi-Racial," was created by identifying respondents who selected more than one racial/ethnic identity.

Political views were assessed by asking the respondents to indicate whether their political views were "extremely conservative," "moderately conservative," "neither conservative nor liberal," "moderately liberal," or "extremely liberal." Educational attainment was captured by asking respondents to identify the highest degree they earned. Option included "less than HS diploma," "HS diploma or GED," "associate's degree," "bachelor's degree," "master's degree," and "doctoral degree or PhD."

Respondents were asked to select the geographic setting that they resided in. Options provided included large city, small city, suburban, town, rural, and other. Because this survey was designed for completion by respondents in either the United States or Canada, generic terms for geographic area were selected for use, rather than providing terms used by a particular country's government source, such as the U.S. Census Bureau. Preliminary analysis of demographics and Likert-type items showed that respondents who identified as hailing from town and rural areas were aligned. This would in theory make sense, as towns often are central

to rural areas, and those living in town connected to an urban area would most likely select “suburban.” Therefore, for analysis appropriate to this particular article, the rural and town options were collapsed into one category and analyzed in dichotomous comparison to respondents who selected large city, small city, suburban, or other.

Results

Sociodemographics

A total of 1,405 respondents participated in the survey. The data were analyzed using PSSP and SPSS. Representation from all 50 states in the United States and all nine English-speaking Canadian provinces (i.e., all provinces except Quebec) was obtained. Just more than 30% of the sample in this study identified as living in a town or rural area. Approximately 20% of the population of the United States, and 19% of the population of Canada, lives in rural areas and small towns (Ratcliffe et al., 2016; Statistics Canada, 2014).

See Table 1 for a summary of the sociodemographic characteristics of the sample who identified as coming from a rural area/town ($n = 436$).

The demographic characteristics of respondents who identified as living in a town or rural area were also compared with the rest of the sample to determine whether there were significant differences. Rural/town respondents were more likely to lean conservative in their political ideology than the rest of the sample. A t -test found significant differences in political views of respondents depending on whether they lived in a rural area/town ($M = 3.54$, $SD = 1.01$) compared with not living in a rural area ($M = 3.78$, $SD = 1$), $t(1,373) = 4.14$, $p < .001$. A t -test found respondents living in rural areas/town had significantly lower educational attainment ($M = 3.67$, $SD = 1.44$) compared with respondents not living in a rural area/town ($M = 4.28$, $SD = 1.29$), $t(778.11) = 7.55$, $p < .001$. There were significant differences in the racial identity of respondents who identified as living in rural areas/towns compared with those who

identified as living in urban and suburban areas, when all categories of race were considered together, $\chi^2(8) = 24.5$, $p = .002$. Respondents who identified as White were more likely to reside in rural areas/towns, $\chi^2(1, N = 1,394) = 21.35$, $p < .001$. Respondents who identified as Black were less likely to reside in rural areas/towns, $\chi^2(1) = 18.38$, $p < .001$. Analyses did not find statistical significance in the distribution of other racial identities between rural and non-rural areas.

There was a significant difference in the proportion of respondents from the United States who identified as living in a rural area compared with similar respondents from Canada, $\chi^2(1, N = 1,385) = 5.85$, $p = .016$. Respondents from Canada were more likely to identify as living in a rural area than respondents from the United States. Respondents who identified as living in a rural area/town in the United States were younger ($M = 40.39$, $SD = 37.38$) than similar respondents in Canada ($M = 56.85$, $SD = 9.93$), $t(430) = 2.56$, $p < .011$. Respondents who identified as living in a rural area/town in the United States had higher levels of educational attainment ($M = 3.7$, $SD = 1.46$) than similar respondents in Canada ($M = 3.29$, $SD = 1.14$), $t(42.63) = -1.94$, $p = .0059$. Respondents who identified as living in a rural area/town in the United States were more likely to have children under 18 living with them than similar respondents in Canada, $\chi^2(1, N = 439) = 4$, $p = .046$. White respondents who identified as living in rural areas/towns were more likely to be from the United States than from Canada, $\chi^2(1, N = 439) = 4.84$, $p = .028$.

A series of independent-samples t -tests were conducted to compare rural (i.e., town, rural) and non-rural (i.e., large and small cities, suburbs) respondents on their experiences during the COVID-19 pandemic. Nine of these comparisons found statistically significant differences in the mean response to the Likert-type items. Specifically, those from rural areas felt more prepared for the COVID-19 outbreak, read the newspaper less for information about the pandemic and used social media more, felt their lives were less disrupted, were less likely to be personally

Table 1. Characteristics of Rural/Town Respondents ($n = 436$).

Variable	M/%
Age	41.73
Race/Ethnicity	
White	84.5%
Multiracial	4.3%
Black	3.8%
Hispanic	2.9%
Asian	2%
Middle Eastern	0.4%
Other	0.9%
Gender	
Female	85%
Male	14%
Gender queer/nonbinary	0.4%
Education	
HS diploma/GED	34.9%
Master's degree	23.5%
Bachelor's degree	22%
Doctoral degree	11%
Associate degree	8.1%
Less than an HS diploma	0.2%
No children (under 18 years) in the home	90.4%
Geographical region	
Northeast United States	64%
South United States	15%
Canada	7.8%
West United States	6%
Midwest United States	4%
Political Ideology	
Liberal	55.1%
Neither Liberal/Conservative	28.1%
Conservative	15.6%

HS = high school; GED = General Educational Development.

impacted, had less medical and transportation challenges, used less alcohol or substances for support, and were more satisfied with their national leadership's response to COVID-19. According to Cohen's (1988) guidelines, all the effect sizes were small (β range = 0.12–0.29), but the largest effect sizes were for the items related to being personally impacted by the virus, satisfaction with national leadership, and challenges in transportation.

In terms of the nonsignificant results, the sample means indicate interesting (and simi-

lar) response patterns. For both groups, they felt somewhat overwhelmed by the amount of information about the pandemic, but also indicated that they were moderately confident in their evaluation of that information. Use of TV, friends, and radio as sources of information was moderate to slight. Support from friends and family was rated high, followed by exercise, mind/body activities, religion, religious community, children's school, and then alcohol—the latter of which was significantly different between the two groups. Work was reported to be moderately impacted and finances slightly impacted. Moderate to high satisfaction was found for measures undertaken by leadership (e.g., schools, businesses) as well as the governor's response to manage the risk, and personal preventive measures were moderately based on government official's recommendations. Table 2 displays the *t*-test and effect size results.

Canadian respondents responded to a number of Likert-type items differently than the respondents from the United States. One item has a small effect size (e.g., $<.2$). Most item differences have medium effect size (e.g., $.2$ – $.5$). One item has a large effect size (e.g., $>.8$), which was satisfaction with national leadership. See Table 3 for comparisons of rural/town respondents from Canada versus the United States.

Discussion

The results of this study show that in June 2020, individuals in towns and rural areas felt more prepared, better adapted, and struggled less in several areas related to COVID-19 than those in cities and suburban areas. This may not be surprising, based on the past literature that supports a greater quality of life in rural areas (Maybery et al., 2009). In particular, rural respondents felt more prepared for the pandemic and were less impacted by it. In terms of preparation, the overall scores for both groups were among the lowest on the survey (e.g., slightly disagreed that they were prepared). This degree of impact from COVID-19 makes sense as the epicenter of the illness was New York City, and it has

Table 2. Survey Items and Descriptive Statistics.

Item, location (n)	M (SD)	t(df)	p	g
I felt prepared for the COVID-19 outbreak.				
Not rural (950)	2.45 (1.58)	-2.08	.038	.12
Rural/Town (440)	2.64 (1.60)	(1,388)		
I read the newspaper (either hardcopy or online) as a source of information on the COVID-19 outbreak.				
Not rural (879)	3.82 (2.01)	-2.72	.007	.16
Rural/Town (415)	3.50 (1.99)	(1,292)		
I used social media as a source of information on the COVID-19 outbreak.				
Not rural (899)	4.46 (1.61)	-2.08	.035	.13
Rural/Town (423)	4.66 (1.55)	(1,320)		
I watched the news on TV/internet as a source of information on the COVID-19 outbreak.				
Not rural (897)	4.45 (1.74)	-0.81	.421	—
Rural/Town (421)	4.53 (1.70)	(1,316)		
I used family/friends as a source of information on the COVID-19 outbreak.				
Not rural (906)	4.10 (1.49)	-1.87	.059	—
Rural/Town (414)	4.27 (1.45)	(1,318)		
I used the radio as a source of information on the COVID-19 outbreak.				
Not rural (825)	3.08 (1.89)	1.15	.249	—
Rural/Town (388)	2.95 (1.76)	(807)		
My life was significantly disrupted by the COVID-19 outbreak.				
Not rural (908)	5.13 (1.27)	3.05	.002	.20
Rural/Town (413)	4.87 (1.44)	(715)		
I was personally affected by the virus itself (personally contracted the virus, knowing people who have died, knowing many people in my community having it, etc).				
Not rural (921)	3.55 (1.93)	4.97	<.001	.29
Rural /Town (419)	2.99 (1.89)	(1,338)		
I experienced challenges related to medical care during the COVID-19 outbreak.				
Not rural (859)	3.55 (1.86)	2.42	.016	.15
Rural/Town (387)	3.27 (1.87)	(1,244)		
I experienced challenges related to childcare during the COVID-19 outbreak.				
Not Rural (466)	3.00 (2.22)	1.84	.06	—
Rural/Town (214)	2.67 (2.12)	(431)		
I experienced challenges related to transportation during the COVID-19 outbreak.				
Not rural (702)	2.43 (1.88)	4.65	<.001	.29
Rural/Town (318)	1.91 (1.54)	(739)		
I experienced challenges related to work during the COVID-19 outbreak.				
Not rural (842)	4.68 (1.71)	0.90	.369	—
Rural/Town (382)	4.59 (1.72)	(1,222)		
I experienced financial challenges during the COVID-19 outbreak.				
Not rural (871)	3.37 (1.91)	-0.33	.743	—
Rural/Town (390)	3.41 (1.92)	(1,259)		
I adapted to/copied with the COVID-19 outbreak very well.				
Not rural (871)	4.31 (1.40)	1.11	.258	—
Rural/Town (390)	4.40 (1.30)	(1,312)		
I am able to evaluate information about COVID-19 based on the quality and source of the information.				
Not rural (946)	4.97 (1.13)	1.13	.264	—
Rural/Town (434)	4.89 (1.15)	(1,378)		

(continued)

Table 2. (continued)

Item, location (n)	M (SD)	t(df)	p	g
I felt overwhelmed by the amount of information available about the COVID-19 outbreak.				
Not rural (951)	4.18 (1.61)	0.30	.764	—
Rural/Town (440)	4.15 (1.61)	(1,389)		
My family/friends provided support to me during the COVID-19 outbreak.				
Not rural (942)	5.41 (1.05)	0.61	.539	—
Rural/Town (437)	5.37 (1.03)	(1,377)		
My child(ren)'s school provided support to me during the COVID-19 outbreak.				
Not rural (457)	3.51 (1.79)	-0.30	.763	—
Rural/Town (195)	3.55 (1.79)	(650)		
My religion/faith provided support to me during the COVID-19 outbreak.				
Not rural (666)	3.93 (1.86)	-1.17	.238	—
Rural/Town (318)	4.08 (1.79)	(982)		
My religious community provided support to me during the COVID-19 outbreak.				
Not rural (591)	3.46 (1.89)	1.05	.293	—
Rural/Town (272)	3.61 (1.87)	(861)		
Social media provided support to me during the COVID-19 outbreak.				
Not rural (908)	3.78 (1.51)	0.19	.853	—
Rural/Town (422)	3.77 (1.51)	(1,328)		
Alcohol and substances provided support to me during the COVID-19 outbreak.				
Not rural (758)	2.63 (1.75)	2.36	.019	.15
Rural/Town (342)	2.37 (1.63)	(700)		
Exercise provided support to me during the COVID-19 outbreak.				
Not rural (892)	4.35 (1.61)	1.55	.117	—
Rural/Town (408)	4.50 (1.56)	(1,298)		
Mind/body practices (yoga, tai chi, meditation) provided support to me during the COVID-19 outbreak.				
Not rural (760)	3.71 (1.78)	-1.75	.080	—
Rural/Town (340)	3.91 (1.69)	(682)		
I am satisfied with our national leadership's response during this COVID-19 outbreak.				
Not rural (895)	1.97 (1.62)	-4.22	<.001	.26
Rural/Town (412)	2.40 (1.78)	(735)		
I am satisfied with my state governor's response during this COVID-19 outbreak.				
Not rural (941)	4.35 (1.67)	-0.46	.645	—
Rural/Town (426)	4.39 (1.54)	(884)		
I believe the measures taken by leadership (e.g., school closures, business closures, reopening) were appropriate to the level of risk in my community.				
Not rural (953)	4.74 (1.49)	-0.36	.715	—
Rural/Town (440)	4.77 (1.39)	(1,391)		
I strictly followed my state's preventive measures (e.g., social distancing, wearing a mask) during this COVID-19 outbreak.				
Not rural (950)	5.51 (1.03)	1.13	.271	—
Rural/Town (438)	5.44 (1.10)	(1,386)		
I balanced my personal preventive measures based on government officials' recommendations.				
Not rural (945)	4.72 (1.32)	-0.49	.619	—
Rural/Town (436)	4.75 (1.27)	(1,379)		
I balanced my personal preventive measures based on family's and friends' recommendations.				
Not rural (944)	3.59 (1.61)	1.93	.054	—
Rural/Town (434)	3.77 (1.52)	(889)		

All significant items are in bold ($p = < .05$).

Table 3. Significant Differences of Respondents From Canada Versus the United States.

Item (n)	Canada		USA		t(df)	p	g
	M (SD)		M (SD)				
I used the radio as a source of information on the COVID-19 outbreak. (387)	3.71 (1.86)		2.89 (1.74)		2.4 (385)	.017	.47
I was personally affected by the virus itself (personally contracted the virus, knowing people who have died, knowing many people in my community having it, etc). (417)	1.88 (1.45)		3.09 (1.9)		-4.41 (40.33)	.000	.66
I experienced challenges related to transportation during the COVID-19 outbreak. (316)	2.7 (2.01)		1.85 (1.49)		1.98 (23.93)	.06	.55
Exercise provided support to me during the COVID-19 outbreak.(407)	5 (1.08)		4.46 (1.59)		2.61 (43.54)	.012	.35
I am satisfied with our national leadership's response during this COVID-19 outbreak. (410)	5.38 (1.05)		2.18 (1.62)		15.09 (38.96)	0	2
I am satisfied with my state governor's response during this COVID-19 outbreak. (424)	5.25 (1.16)		4.36 (1.55)		38.96 (422)	.011	.58
I believe the measures taken by leadership (e.g., school closures, business closures, reopening) were appropriate to the level of risk in my community. (438)	5.52 (0.97)		4.71 (1.4)		4.41 (43.63)	0	.59
I based my personal preventive measures on government officials' recommendations. (432)	3.59 (1.48)		3.78 (1.52)		2.46 (432)	.014	.13

taken a longer time for the virus to travel to more remote regions, and unfortunately may be different as the virus progresses.

Although rural/town respondents reported less disruption than urban respondents, both groups rated this item quite high, indicating that this virus has significantly disrupted lives in both areas. While support for state/provincial leadership was quite high (and not significantly different between rural/town and urban/suburban), support for national leadership was the lowest scored item on the survey, and rural respondents expressed significantly greater support. The general trend of lower trust in national leadership is consistent for the United States, where President Donald Trump has record low levels of support. It is important to note that the Canadian respondents expressed not just significantly higher agreement with the statement of national leadership support, but with a very large effect size. Combined with rural survey respondents being more likely to come from Canada, Canadian support of their national leadership might account for the general finding that rural people had higher levels of satisfaction of national leadership.

Challenges to medical care were significantly lower for the rural dwellers. This is inconsistent with past research that generally suggests that urban areas offer better access to health care and that health outcomes are generally worse for rural than urban people (Long et al., 2018), but consistent with the reality that many urban settings experienced an overwhelmed health care system during the pandemic, and accessing the system for non-COVID-related reasons was challenging. Many rural areas did not get affected in this way, and thus while challenges may have existed in terms of new prevention efforts, disruptions were likely less prevalent where perhaps COVID-19 was taking much of the health care efforts.

Interestingly, alcohol or substance use as a source of support was greater for those in non-rural areas even though it was quite low (slightly disagree to use as a form or support). Monnat and Rigg (2018) provide two possible explanations for a difference in

usage. First, because stigma is stronger in rural communities, people are less likely to seek or continue treatment (Monnat & Rigg, 2018). Thus, this finding may be a result of underreporting. A second explanation offered is that rural communities may be strengthened by their comparatively higher levels of community attachment, social interaction, and social support (Monnat & Rigg, 2018). The latter highlights a strength in which small communities may provide support. Nevertheless, this overall finding of less substance use among rural/town people than urban is an interesting finding that needs more in-depth exploration in the future.

There were also significant differences in some of the sources of support and information between rural/town and cities/suburban. Those who are in rural/towns were more likely to use social media and less likely to read the newspaper for COVID-19 information. This is inconsistent with the findings that rural people use social media less than urban people (Hale et al., 2010; Perrin, 2015). Perhaps people in rural areas use social media more purposefully given it has been reported to build new networks, strengthen existing connections, connect with similar businesses, contact journalists, and reach potential customers (Given et al., 2017). Thus, social media for people in rural areas may be more intentional and focused, and in this case, it was to garner information regarding the pandemic. Furthermore, it is possible that social media could reduce isolation and increase opportunities to share stories of rural life that would benefit the community as a whole (Given et al., 2017). This is promising because technology has a strong potential to foster social innovation that is not bound by time and space limitations (Onitsuka, 2019). Nonetheless, access and connectivity issues remain significant struggles for those in rural areas (Onitsuka, 2019). This quandary, that technology and social media are extremely important for rural areas, but also lack more than other areas, needs to be addressed to improve equity and equality for those in rural areas. Additional social work research on how technology can benefit rural communities is also

needed (Waltman, 2011) to determine what role social media plays for those in rural areas, particularly during times of crises.

Significant differences were also found for transportation. Previous research suggests that people in rural areas often lack transportation options (Mitchell, 2019), and these areas are car-dependent. However, interestingly, in this study, those in rural areas had less transportation disruption. This is important distinction—disruption in transportation versus lack of transportation. The lack of challenges with transportation for rural respondents found in this sample may be reflective of income (i.e., own a reliable car) or could be that things just did not really change as much from them, whereas those in non-rural areas might heavily rely on public transportation regardless of the income. The cutback and cancelations in public transit as well as of the stress of contracting and transmitting COVID-19 through the mode of public transportation very likely contributed to the challenges cited by urban respondents.

Implications for Practice

The extent that social workers can develop, enhance, and utilize these modes to support rural communities that are often neglected could be a critical way of improving outcomes in rural areas. Rural community resilience is strengthened with alliance building between practitioners and the communities they serve (Fleming et al., 2018). Becoming creative and making use of the natural resources is necessary. For example, a grocery store in a rural area may serve as a communal place where people come together. Using these opportunities to provide services and information may be beneficial. Community resilience is most evident in the times following an adverse or emergency event (Fleming et al., 2018), so at the time of a pandemic, it may be an opportune time to mobilize. We cannot perpetuate the neglect of rural communities, and there is a need to identify protective and recovery factors to fill a gap in research on stress, crisis, and resilience in rural communities (Vandergriff-Avery et al., 2004).

Previous research indicates that rural communities lack formal services (Waltman, 2011), and social assets, such as schools, provide important conditions for building and sustaining social and community relationships and functioning. These informal functions of institutions allow rural communities to share, care, and support each other in times of climatic despair or other difficult circumstances (Maybery et al., 2009). A framework for building partnerships between family, school, and communities incorporating strengths-based, trauma-informed, and systems-focused approaches in rural areas has been offered to be responsive to families' needs and strengths (Blitz et al., 2013). Building on the strengths of communities, holistic care through a multiservice center that is central to the community may be helpful (Bullock, 2004). Remembering these crucial external supports is important when designing interventions (Vandergriff-Avery et al., 2004). Focusing on strengths and resources in rural communities, including their resilience, is an area ripe for social work community development. Additional services, both formal and informal, can provide additional assistance during times of crises.

Limitations

There are several limitations to this study that are worth noting. The primary limitation is that the convenience/snowball sampling method employed does not suggest generalizability beyond the sample. The overall study sample differs from the general population in terms of gender, race, political ideology, and educational attainment. The study sample had a very high proportion of women, overrepresentation of White respondents, respondents with more liberal views than the general public, and higher educational levels than found in the U.S. and Canadian populations, in general. The rural/town subsample which served as the focus of this study was still more White than rural areas, in general (Housing Assistance Council, 2012), but was closer to educational attainment representation of rural America (U.S. Department of Agriculture

Economic Research Service, 2017) than the sample, in general.

As aforementioned, the general sample for this particular study was highly educated. In our sample, 56% had a bachelor's degree or higher, compared with 31.5% of the U.S. population according to the U.S. Census Bureau (U.S. Census Bureau, 2019). Given that education and income (though income was not asked in the survey) are generally positively correlated (Gregorio & Lee, 2002), it is possible that this sample also may not have as substantial financial challenges than those of lower income had. Both groups, rural/town versus urban/suburban, in this study sample reported low agreement with statements of financial disruptions; due to the differences between this sample and the general public, it is possible that the general public had more financial disruptions than this study sample.

Another limitation of this study is that people self-selected their demographic characteristics, like the geographic area in which they live in. The respondents' region chosen may or may not be reflective of the region's actual definition. For example, the general definition of a town is a geographically defined area that is larger than a village but smaller than a city. A town can be located in a more rural area and can serve as the hub, or the town could be in very close proximity to or in a major urban setting. The latter may have many influences and cultural impacts from the urban area, which may differ from a remote small town. Another possible limitation of self-selecting one's geographic area is that their perception of where they live may not meet a technical definition. The U.S. Census Bureau defines rural as "any population, housing or territory NOT in an urban area (U.S. Census Bureau, n.d.)." Thus, although some areas may technically be connected to an urban area and not be considered rural by census standards, the self-perception may be rural.

Finally, the COVID-19 pandemic is an ongoing crisis. The findings from this study are limited to the experiences of respondents up until the end of June 2020. It is possible that the findings of this study would be different, even at the time of publication. This

limitation warrants continuing research similar to the study reported here. Despite these limitations, the results of this study are important when considering how people adapt to and cope with crises and traumas such as COVID-19. By not neglecting rural areas when generating knowledge and by examining their unique needs and strengths, we gain a more accurate sense of people's needs.

Declaration of Conflicting Interests

The author(s) declared no potential conflicts of interest with respect to the research, authorship, and/or publication of this article.

Funding

The author(s) received no financial support for the research, authorship, and/or publication of this article.

ORCID iD

Donna Wang  <https://orcid.org/0000-0002-0038-7220>

References

- Anthopoulos, T., Kaberis, N., & Petrou, M. (2017). Aspects and experiences of crisis in rural Greece. Narratives of rural resilience. *Journal of Rural Studies*, 52, 1–11.
- Behan, C. (2020). The benefits of meditation and mindfulness practices during times of crisis such as Covid-19. *Irish Journal of Psychological Medicine*, 1–8. <https://doi.org/10.1017/ipm.2020.38>
- Blitz, L. V., Kida, L., Gresham, M., & Bronstein, L. R. (2013). Prevention through collaboration: Family engagement with rural schools and families living in poverty. *Families in Society*, 94(3), 157–165.
- Bullock, K. (2004). The changing role of grandparents in rural families: The results of an exploratory study in southeastern North Carolina. *Families in Society*, 85(1), 45–54.
- Chodkiewicz, J., Talarowska, M., Miniszewska, J., Nawrocka, N., & Bilinski, P. (2020). Alcohol consumption reported during the COVID-19 pandemic: The initial stage. *International Journal of Environmental Research and Public Health*, 17(13), 4677.
- Cohen, J. (1988). *Statistical power analysis for the behavior sciences* (2nd ed.). Lawrence Erlbaum.

- Fleming, A. R., Ysasi, N. A., Harley, D. A., & Bishop, M. L. (2018). Resilience and strengths of rural communities. In D. A. Harley, N. A. Ysasi, M. L. Bishop, & A. R. Fleming (Eds.), *Disability and vocational rehabilitation in rural settings: Challenges to service delivery* (pp. 117–136). Springer.
- Ford, D. M. (2016, November). Four persistent rural healthcare challenges. *Healthcare Management Forum*, 29(6), 243–246.
- Gao, Z., Lee, J. E., McDonough, D. J., & Albers, C. (2020). Virtual reality exercise as a coping strategy for health and wellness promotion in older adults during the COVID-19 pandemic. *Journal of Clinical Medicine*, 9(6), Article 1986.
- Given, L. M., Winkler, D. C., & Hopps-Wallis, K. (2017). Social media for social good: A study of experiences and opportunities in rural Australia. In *Proceedings of the 8th International Conference on Social Media & Society* (pp. 1–7).
- Gregorio, J. D., & Lee, J. W. (2002). Education and income inequality: New evidence from cross-country data. *Review of Income and Wealth*, 48(3), 395–416.
- Hale, T. M., Cotten, S. R., Drentea, P., & Goldner, M. (2010). Rural-urban differences in general and health-related internet use. *American Behavioral Scientist*, 53(9), 1304–1325.
- Housing Assistance Council. (2012). *Rural research brief: Poverty in rural America, 2012*. http://www.ruralhome.org/storage/research_notes/rn_poverty.pdf
- Lazarus, R. S. (1984). Puzzles in the study of daily hassles. *Journal of Behavioral Medicine*, 7, 375–389.
- Long, A. S., Hanlon, A. L., & Pellegrin, K. L. (2018). Socioeconomic variables explain rural disparities in US mortality rates: Implications for rural health research and policy. *SSM-Population Health*, 6, 72–74.
- Mainiero, L. A., & Gibson, D. E. (2003). Managing employee trauma: Dealing with the emotional fallout from 9-11. *Academy of Management*, 17(3), 130–142. <https://doi.org/10.5465/ame.2003.10954782>
- Maybery, D., Pope, R., Hodgins, G., Hitchener, Y., & Shepherd, A. (2009). Resilience and well-being of small inland communities: Community assets as key determinants. *Rural Society*, 19(4), 326–339.
- Mitchell, A. S. (2019). Attached, addicted, and adrift: Understanding the rural opioid crisis. *Families in Society*, 100(1), 80–92.
- Monnat, S. M., & Rigg, K. K. (2018). *The opioid crisis in rural and small town America* (National Issue Brief #135). Casey School of Public Policy, University of New Hampshire.
- Onitsuka, K. (2019). How social media can foster social innovation in disadvantaged rural communities. *Sustainability*, 11(9), Article 2697.
- Perrin, A. (2015). *Social media usage: 2005-2015*. Pew Research Center. <https://www.pewresearch.org/internet/2015/10/08/social-networking-usage-2005-2015/>
- Prost, S. G., Lemieux, C. M., & Ai, A. L. (2016). Social work students in the aftermath of Hurricanes Katrina and Rita: Correlates of post-disaster substance use as a negative coping mechanism. *Social Work Education*, 35(7), 825–844.
- Ratcliffe, M., Burd, C., Holder, C., & Fields, A. (2016). *Defining rural at the U.S. Census Bureau, ACSGEO-1, U.S. Census Bureau, Washington, DC, 2016*. <https://www.census.gov/content/dam/Census/library/publications/2016/acs/acsgeo-1.pdf>
- Richardson, B. K., & Maninger, L. (2016). “We were all in the same boat”: An exploratory study of communal coping in disaster recovery. *Southern Communication Journal*, 81(2), 107–122.
- Richman, J. A., Rospenda, K. M., Johnson, T. P., Cho, Y. I., Vijayasira, G., Cloninger, L., & Wolff, J. M. (2012). Drinking in the age of the great recession. *Journal of Addictive Diseases*, 31(2), 158–172.
- Roman, N. V., Mthembu, T. G., & Hoosen, M. (2020). Spiritual care—“A deeper immunity”—A response to Covid-19 pandemic. *African Journal of Primary Health Care & Family Medicine*, 12(1), Article 2456.
- Stanton, R., To, Q. G., Khalesi, S., Williams, S. L., Alley, S. J., Thwaite, T. L., . . . Vandelanotte, C. (2020). Depression, anxiety and stress during COVID-19: Associations with changes in physical activity, sleep, tobacco and alcohol use in Australian adults. *International Journal of Environmental Research and Public Health*, 17(11), Article 4065.
- Statistics Canada. (2014). *Canada’s rural population declining since 1851* (Canadian Demography at a Glance, Catalogue No. 98-003-X). <https://www150.statcan.gc.ca/n1/pub/91-003-x/2014001/section01/04-eng.htm>

- Townsend, W. (2010). Recovery services in rural settings: Strengths and challenges influencing behavioral healthcare service delivery. *Journal of Rural Mental Health, 34*(1), 23–32.
- U.S. Census Bureau. (n.d.). <https://gis-portal.data.census.gov/arcgis/apps/MapSeries/index.html?appid=7a41374f6b03456e9d138cb014711e01#:~:text=The%20Census%20Bureau%20defines%20rural,rural%20based%20on%20this%20definition>
- U.S. Census Bureau. (2019). *Quick Facts United States*. <https://www.census.gov/quickfacts/fact/table/US>
- U.S. Department of Agriculture Economic Research Service. (2017). *Rural education at a glance, 2017 Edition*. U.S. Department of Agriculture. <https://www.ers.usda.gov/webdocs/publications/83078/eib-171.pdf?v=42830>
- University of Minnesota. (2015). *Social problems: Continuity and change*. <https://open.lib.umn.edu/socialproblems/front-matter/publisher-information/>
- Vandergriff-Avery, M., Anderson, E. A., & Braun, B. (2004). Resiliency capacities among rural low-income families. *Families in Society, 85*(4), 562–570.
- von Reichert, C., Cromartie, J. B., & Arthun, R. O. (2011). Reasons for returning and not returning to rural US communities. *Journal of Rural and Community Development, 6*(2), 35–52.
- Waltman, G. H. (2011). Reflections on rural social work. *Families in Society, 92*(2), 236–239.
- Wang, H., Xia, Q., Xiong, Z., Li, Z., Xiang, W., Yuan, Y., . . . Li, Z. (2020). The psychological distress and coping styles in the early stages of the 2019 coronavirus disease (COVID-19) epidemic in the general mainland Chinese population: A web-based survey. *PLoS ONE, 15*(5), Article e0233410.
- World Health Organization. (2020). *Coronavirus disease 2019 (COVID-19): Situation report-181*. https://www.who.int/docs/default-source/coronaviruse/situation-reports/20200719-covid-19-sitrep-181.pdf?sfvrsn=82352496_2