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Older Adults' Experience of the COVID-19 Pandemic: A Mixed-Methods Analysis of Stresses and Joys

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Abstract

Background and Objectives: The coronavirus disease 2019 (COVID-19) pandemic is experienced differently across individuals, and older adults' different life experiences lead to a variety of ways of coping. The present study explores older adults' reports of what about the pandemic is stressful, and what brings joy and comfort in the midst of stress.

Research Design and Methods: An online survey asked 825 U.S. adults aged 60 and older to complete questionnaires assessing 3 psychological well-being indicators: perceived stress, negative affect, and positive affect. Participants also responded to open-ended questions about what was stressful and what brought joy or comfort at the time of the survey. A mixed-method approach first qualitatively analyzed the open-ended responses, content analysis identified themes most frequently reported, and quantitative analysis examined the associations between various stressors and joys and the psychological well-being indicators.

Results: Qualitative analysis revealed 20 stress categories and 21 joy/comfort categories. The most commonly reported stressors were confinement/restrictions, concern for others, and isolation/loneliness; the most commonly reported sources of joy/comfort were family/friend relationships, digital social contact, and hobbies. Demographic comparisons revealed variations in experience. Independent *t* tests revealed stress from concern for others, the unknown future, and contracting the virus to be significantly associated with poorer psychological well-being; faith, exercise/self-care, and nature were associated with more positive psychological well-being.

Discussion and Implications: Results are discussed in the context of stress and coping theory, highlighting the importance of understanding the unique stress experience of each individual for effective distress intervention.

Keywords: Coping, Qualitative, Social support, Stress, Virus

The coronavirus (SARS-CoV-2) pandemic of 2019 (COVID-19) represents a broad-scale stressor the universality of which has been rarely seen. The reality of physical threat, combined with the pandemic's sudden onset, profound impact on daily life, and uncontrollability, is the formula for a "perfect storm" of stress reactivity (Fassett-Carman et al., 2020; Wheaton & Montazer, 2009). Combine these universal aspects with the added vulnerabilities faced by some

older adults, such as preexisting isolation, mobility limitations, financial vulnerability, or elevated health risk, and the psychological impact of COVID-19 could be magnified.

Older adults are a very heterogeneous group, however, and are therefore likely to experience a stressor on the scale of the COVID-19 pandemic in a variety of ways. Given that the COVID-19 pandemic has the potential to affect multiple stress domains, it is vital to explore which specific aspects

of COVID-19 older adults experience as stressful, as well as which resources they turn to for joy or comfort in the midst of this stress. Importantly, the distinctiveness of COVID-19 as a stressor means that researchers' assumptions may not fully reflect individual experience, and important "stress" domains may be missed if only researcher-driven analysis is conducted. In contexts like this, it is therefore essential to let participants themselves communicate their experience in their own words, external to researchers' expectations and unconstrained by quantitative measurement tools. Here, a mixed-method approach permits the combination of quantitative assessments of psychological well-being with qualitative analysis of older adults' reports of what is most stressful, and what brings joy and comfort, in the midst of a pandemic.

Stress and COVID-19

A framework underlying much work in the area of stress is the Transactional Theory of Stress and Coping (TTSC; Lazarus & Folkman, 1984), which describes the stress experience as occurring at the interaction between the person and the context. According to the theory, the impact of a stressor depends on (a) how an individual *appraises*, or evaluates, it as stressful (including which features of the stressor are most salient to the individual's experience) and (b) how an individual *cope*s with it, or the extent to which they are able to engage resources to combat the stress. Coping behavior can be *problem-focused*, addressing the stressor itself, or *emotion-focused*, addressing the individual's response or interpretation. Importantly, coping behavior is only engaged if the stressor is appraised as stressful or threatening or challenging in some way. Should coping efforts and resources be sufficient to ameliorate the physiological and psychological arousal prompted by a stressor, then the downstream impact of the stressor is likely to be minimal; functioning returns to homeostasis, and life goes on (Lazarus & Folkman, 1984). If, however, the coping resources and attempts are not sufficient, and the psychological and physiological arousal remains heightened, then maladaptive physical and psychological outcomes become more likely (Leger et al., 2018; Peters et al., 2019; Trick et al., 2016).

There are a number of features of COVID-19 that research would highlight as elevating its potential stressfulness. The virus itself represents a particular health and mortality risk, particularly for older adults (Centers for Disease Control and Prevention, 2020). The subsequent lockdown measures and "social distancing" recommendations elevated the risk for social isolation and loneliness, stressors that gain prevalence with age (National Academies of Sciences, Engineering, and Medicine, 2020). The unpredictability of who will get sick, how long it will last, and its long-term effects elevates feelings of uncertainty and uncontrollability, which serve to magnify one's sense of distress (Peters et al., 2019; Wheaton & Montazer, 2009). There are likely

many other dimensions of this broad-scale event that contribute to its stressfulness, and these dimensions likely vary from person to person; collecting qualitative responses from older adults during the pandemic will help elucidate those aspects most salient to well-being in later life. Because stress engages coping efforts, it is also important to explore older adults' reports of coping resources or behaviors that are most helpful in the context of pandemic-related distress. Investigating psychological well-being indicators such as perceived stress (PS) or affect in the midst of a stress event can provide an initial gauge for how well an individual is managing their distress, and therefore how at risk they may be for negative physical or mental health outcomes as a result of the stressor.

Generally, research has shown macro-level stressors such as the 2007–2008 financial crisis or natural disasters have negative impacts on psychological well-being for older adults (Parker et al., 2016; Wilkinson, 2016); some may be more affected than others, but most individuals experience some level of distress above their norm. Considering the particular features of COVID-19 that are likely to emerge as stressful, studies with older adults have found isolation (Stahl et al., 2017), economic volatility (Whitehead & Bergeman, 2015), and health vulnerability (Lee et al., 2012) to be associated with higher levels of stress or poorer psychological well-being. For stressors that are outside of one's control, emotion-focused coping resources such as having a supportive social network (Stein & Smith, 2015), having a strong faith (Jackson & Bergeman, 2011; Whitehead & Bergeman, 2019), and finding joy or gratitude in the midst of hardship via mindfulness or reappraisal (Bae et al., 2015; Finkelstein-Fox et al., 2019) are associated with more positive psychological well-being. However, which aspects of COVID-19 are particularly stressful for older adults, and which resources older adults find particularly helpful in managing well-being during the unique experience of a pandemic, remain unknown.

Present Study

Although anchored within the stress and coping theory, this study is largely exploratory, as the COVID-19 pandemic represents a stressor that is unmatched in recent history when it comes to its universality, magnitude, and potential impact. The analysis was therefore guided by three questions about the experience of older adults captured by the survey:

1. In the midst of a pandemic, what does this sample of older adults find most stressful?
2. In the midst of a pandemic, what does this sample of older adults report as bringing them the most joy or comfort?
3. Do those who endorse a particular stressor or source of joy/comfort have significantly different levels of the psychological well-being indicators than those who do not?

Note that Question 2, which is intended to capture coping resources and behaviors, avoids using the term “coping”; this was purposeful, as the author’s previous work with older adults revealed the term “coping” to have depression-oriented connotations, with many failing to identify themselves as needing to cope because they were not “depressed.” Because the goal of coping efforts is to reduce distress and enhance positive emotions, the “joy or comfort” phrasing was used to encourage participants to think more broadly than the term “coping” often permits. In an effort to further explore the heterogeneity of experience, we also compared the most commonly reported sources of stress and joy across demographic characteristics.

For the quantitative analysis, the expectation is that a subset of stressors will emerge as more salient, indicated by significantly higher PS and negative affect (NA), and significantly lower positive affect (PA) in those who report a given stressor versus those who did not; similarly, a subset of reported joys/comforts is expected to emerge as particularly beneficial, indicated by significantly lower PS and NA, and significantly higher PA in those who report a given joy/comfort source versus those who did not.

Design and Methods

Participants

Participants were 825 adults aged 60 and older residing in the United States who completed both the quantitative and qualitative portions of an online survey. Participants were recruited via emails to university list serves and posts to social media; primary contacts centered in Michigan, but the survey reached participants in 47 states (by region, 47% resided in the Midwest, 29% in the Southeast, 11% in the West, 9% in the Northeast, and 4% in the Southwest). The survey was open for a 48-h period over March 22–23, 2020; at this point in the pandemic event, daily case counts were rising exponentially, many states were closing schools, and stay-at-home orders were beginning to be issued (Institute for Health Metrics and Evaluation, 2020; Worldometer, 2020). Recruitment relied on organic sharing of the survey link; the snowball sampling approach was used to facilitate rapid distribution of the survey and capture as many responses as possible within the 48-h span. Participation was voluntary and anonymous; all procedures were approved by the institutional review board at the University of Michigan.

The final sample was 96.6% non-Hispanic White, 1% Hispanic/Latinx, 0.5% Black/African American, 0.5% Asian/Asian American, 0.2% Middle Eastern/Arab American, 0.2% Native American/Pacific Islander, and 1% Other. The sample was 79.3% female; in terms of age, 63.8% were 60–69 years, 30.7% were 70–79 years, and 5.5% were older than 80 years. A majority of participants (71%) were married or partnered, 19.3% were single or divorced, and 9.7% were widowed. Considering income, 5% earned less than \$25k annually, 20.5% earned

\$25–49.9k, 23.6% earned \$50–74.9k, 19% earned \$75–99.9k, 15.1% earned \$100–124.9k, 5.5% earned \$125–149.9k, and 11.3% earned \$150k or more. The sample was 65.8% retired, 15.9% reported working part time, and 18.2% reported working full time. Healthwise, 92.1% of the sample self-reported as somewhat healthy or very healthy. At the time of the survey, no one in the sample had tested positive for coronavirus, and no one had anyone in their household who had tested positive.

Measures

Along with reporting information related to demographic characteristics and coronavirus diagnosis, participants completed questionnaires assessing PS, PA, and NA. Participants were also given the opportunity to respond to open-ended questions about their experience with stress and joy during the pandemic. All metrics and questions were anchored to the last 24 h of experience in order to permit anchoring to the particular point of the pandemic event.

Perceived stress

Using the 14-item Perceived Stress Scale (Cohen et al., 1983) participants responded according to their experience in the *past day*. An example item is, *Today I felt nervous and “stressed.”* For ease of use on mobile devices, the original 4-point scale was reduced to a 2-point scale (agree/disagree). Items were scored and summed so that higher values indicate higher PS, with a possible range of 14–28; Cronbach’s alpha = 0.82.

Positive and negative affect

The Positive and Negative Affect Scale (Watson et al., 1988) assessed the extent to which participants had felt each of 10 positive and 10 negative emotions within the *last day*. For ease of use on mobile devices, the original 5-point response format was reduced to a 3-point response format (*not at all, a little, and a lot*), for a possible range of 10–30 for each scale (higher scores indicate higher levels of PA or NA; Cronbach’s alpha = 0.88 for NA, 0.80 for PA).

Qualitative questions

To allow participants to relate their experience in their own words, two open-ended questions asked about stressors and joys: *What are you finding most challenging or stressful today?* and *What is bringing you joy or comfort today?* No word limit was placed on responses, and responses ranged from single-word answers to full paragraphs.

Qualitative Analysis Procedure

The analysis took a conventional qualitative content analysis approach (Cho & Lee, 2014; Hsieh & Shannon, 2005). The goal was to have the themes/codes emerge from the data. The first step in the analysis of the qualitative data

Table 1. Selected Categories, Descriptions, and Examples for Stress and Joy Responses

Category	Description guiding coding procedure	Example response
<i>Sources of stress</i>		
Restrictions/Confinement	Responses related to being confined to home, not going out, not being able to carry on with life as usual (e.g., travel, religious gatherings).	“Lack of freedom to do what I want to do.”
Concern for Others	Responses related to concern for the physical health, safety, or mental health of family and friends, as well as concern for others more generally.	“I stress about the health of my three children and their families.”
Isolation/Loneliness	Responses related to isolation, loneliness, and missing family and friends.	“Being alone most of the day.”
Unknown Future	Responses related to not knowing what will happen, how long the pandemic will last, and concern for the future.	“Unable to plan the future due to the many unknowns of COVID-19.”
<i>Sources of joy</i>		
Family/Friends	Responses identifying family (general or outside the household) or friends as sources of joy; also interactions with people stated generally (not specifying who or whether it was digital vs. in-person).	“Connection with loved ones.”
Digital Interaction	Responses referring to social contact via social media, video calls, email, phone calls, texts, etc.	“FaceTime with my grandkids.”
Hobbies/Entertainment	Responses related to filling time with something enjoyable—puzzles, reading, music, TV, creative pursuits, etc. (NOT social media).	“Working a jigsaw puzzle; reading a non-work book.”
Peace of Mind	Responses related to one’s own health/security or the safety/health/well-being of loved ones; responses may refer to health security, financial security, provisions, a stable/ comfortable home, etc.	“Hearing my children and grands are going ok.”

was to have each coauthor (the primary researcher and a trained graduate student) read through all responses multiple times and separately identify an initial list of themes that seemed to capture the data. These separate lists of themes (both name and description) were then discussed and merged into a single final list, decided by consensus and informed by the data. This process resulted in a list of 21 possible categories for the stress question and 20 possible categories for the joy question (see Table 1 for examples; Figure 1 lists all categories). Note that participant mentions of grandkids were coded as both “Family/Friends” and “Grandkids,” with Grandkids being treated as a subcategory of Family/Friends in the event that grandkids influence well-being differently from the more general family/friends category. The coding process occurred independently: both coauthors separately went through all responses and coded based on best fit; multiple codes were allowed, as participants often reported more than one thing (a maximum of three codes was permitted for the stress question, as that was the most different stressors reported by a single participant; a maximum of four codes was permitted for the joy question, as people listed more joy/comforts). Across raters, initial codes agreed 79.4% of the time for the stress question and 83.8% of the time for the joy question. After slight adjustments to theme definitions

and clarification of categories, conducted collaboratively, responses were coded independently a second time; this time 97.8% of stress codes agreed, and 98.5% of joy codes agreed. The final 18 stress responses and 13 joy responses where codes differed between raters were discussed individually, and final codes for each discrepant case were agreed upon by both coders. Once all responses had been coded, frequency analysis was used to identify the most common themes, as well as to permit quantitative analysis of how these themes were associated with the indicators of psychological well-being.

Results

Descriptive Analyses

Table 2 depicts the descriptive statistics for the three psychological well-being variables (PS, NA, and PA), along with their correlations with the demographic variables. The three psychological well-being measures were significantly correlated with one another in the expected directions, and significant correlations with demographic variables were small in magnitude ($r = 0.07$ – 0.12); self-reported health, however, had significant moderate-magnitude correlations with all three psychological well-being variables.

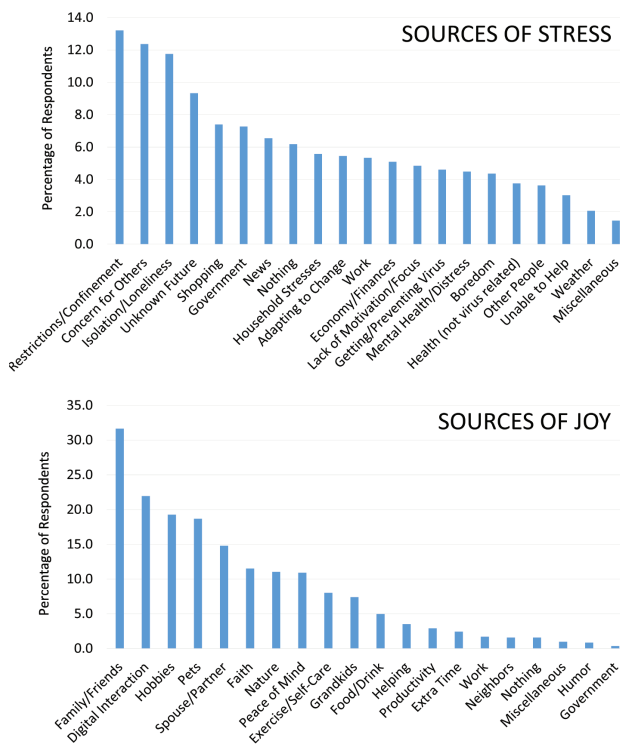


Figure 1. Percentages of participants reporting each stress and joy theme that emerged from the data. Note that for “Sources of Joy,” mentions of grandkids were coded for both family/friends and the separate Grandkids category.

Question 1: Sources of Stress

Figure 1 depicts the percentage of participants whose responses fit with each stress and joy code. A majority of participants (73%) identified only one “most stressful” thing in response to the stress question, but more than 50% of participants identified multiple sources of joy/comfort. For this reason, percentages for the joy categories are higher than percentages for the stress categories. Note that 6% of participants responded that “nothing” was stressful or challenging at the time of data collection, and these participants had significantly higher PA, lower NA, and lower PS than those who reported a source of stress or challenge. This is a reminder of the heterogeneity of experience—not everyone experiences a given event as “stressful.”

The most frequently reported sources of stress were dealing with the mandated restrictions and resulting confinement (13.2%; e.g., “Lack of freedom to do what I want to do,” “Not being able to go out in public,” and “Being cooped up at home”), concern for the well-being of others (12.4%; e.g., “I stress about the health of my three children and their families,” “Worrying about how my former healthcare workers are managing,” and “Worrying about my parents – ages 91 and 94”), and feelings of loneliness and isolation (11.8%; e.g., “Not having physical contact with my family,” “Being alone most of the day,” and “Loneliness”). Next most reported were the unknown future related to the pandemic and its impact (9.3%; e.g., “Not knowing when life can be

Table 2. Descriptive Statistics and Correlations

	Perceived stress	Negative affect	Positive affect
Mean	17.60	35.12	41.90
SD	2.95	4.11	3.66
Range	14–28	30–47	30–50
<i>Correlations</i>			
Negative affect	0.67**	—	
Positive affect	-0.42**	-0.24**	—
Age	-0.07*	-0.10**	0.05
Male	0.08*	0.12**	-0.03
Income not affected	-0.05	0.06	0.08*
Married	-0.04	-0.03	0.08*
Not retired	0.09*	0.08*	0.01
Poorer health	0.30**	0.20**	-0.28**

Notes: Categorical demographic characteristics are labeled by the higher-coded category for clarity. Marital status was a two-group variable: not married/partnered = 1, married/partnered = 2; sex: female = 1, male = 2; retired: Yes = 1, No = 2; income decline: Yes = 1, No = 2; lower scores on self-rated health indicated better health, hence the “Poorer health” label.

* $p < .05$, ** $p < .01$; two-tailed.

more normal,” “Unable to plan the future due to the many unknowns of COVID-19 and when it may quit spreading,” and “Uncertainty of future”), concerns related to shopping or finding needed goods (7.4%; e.g., “Going to the store,” “Unable to buy some items,” and “Weighing risks of going from store to store this week hunting for needed items vs. the benefit”), and displeasure with the government response (7.3%; e.g., “Governmental inaction,” “The lack of leadership by our Federal Government,” and “Trump”). Other pandemic-related stressors emerged as well: 6.6% found the news reports about the virus most stressful (e.g., “News stories about the virus make me anxious,” “Reading the news,” and “Keeping up with COVID-19 info”), 5.5% were concerned about the financial or economic repercussions of the pandemic (e.g., “Retirement account,” “Economic security,” and “Worry about money and stock market decline”), 4.1% identified fear of getting the virus or virus prevention measures as most stressful (e.g., “Worrying about contracting Covid,” “Disinfecting surfaces,” and “Worried about bringing it home to my elderly mom”), and 3.6% were most stressed by how other people were responding to the pandemic (e.g., “Seeing people disregard social distancing,” “That many people aren’t taking COVID-19 seriously,” and “People hoarding paper products”).

Question 2: Sources of Joy

The most frequently reported source of joy or comfort was family or friends, with 31.6% (e.g., “Connection with loved ones,” “Family time,” and “I have wonderful friends”); next most common were digital social contact (specific mentions of video chats, emails, texts, and social media interactions)

at 21.9%, engagement in hobbies at 19.3% (e.g., reading, music, TV, quilting, puzzles, writing, and painting), and pets at 18.7% (responses were typically “pets,” “my dog,” or “my cats”). Spouses/partners (14.8%; e.g., “Being with my wife,” “Having a partner,” and “My husband—getting to spend more time together”), faith (11.5%; e.g., “Trust in God,” “Praying,” and “I live streamed a worship service from my church”), nature (11%; e.g., “Seeds sprouting,” “Sunshine,” and “Early spring!”), and peace of mind (10.9%; e.g., “Being safe in my house,” “That I am healthy so far,” and “Knowing family and friends are okay”) were also frequently reported.

Question 3: Stressors and Joys on Psychological Well-Being

To focus in on the most reported sources of stress and joy, the decision was made to only use stress and joy categories that had been reported by at least 30 participants who had complete data for the psychological well-being measures in the quantitative analyses. This resulted in the retention of 15 sources of stress and 11 sources of joy. To address Question 3, independent *t* tests were conducted for each stress or joy category, comparing levels of PS, PA, and NA between participants who reported a given source of stress/joy and those who did not. Because group *N*'s were unbalanced, statistical results based on equal variances not assumed are reported; because tests were conducted for three dependent variables, a Bonferroni correction of 0.05/3 was used to adjust the family-wise alpha level to 0.017. Table 3 presents the pattern of findings.

Considering PS, participants who reported Lack of Motivation/Focus or Getting/Preventing the Virus as their primary source of stress had significantly higher PS scores than others. Faith and Exercise/Self-Care were the sources of joy/comfort that were associated with lower PS, with participants who listed these having significantly lower PS scores than others. Although the Pets category also had a significant effect on PS, it was in the opposite direction of what would be expected: those participants identifying pets as a source of joy/comfort had significantly higher stress levels than others.

Considering NA, participants identifying Concern for Others, the Unknown Future, the Government, the News, or Getting/Preventing the Virus had significantly higher NA scores than others. Faith was the only source of joy/comfort to have a significant effect, with those identifying Faith having lower NA scores than others. Pets, as was the case for PS, was associated with higher NA scores.

No sources of stress were significantly associated with PA. Participants listing Faith, Nature, or Exercise/Self-Care as a source of joy/comfort had significantly higher PA than others. Once again, the Pets category had the opposite association, with pet-related responses being linked with lower levels of PA.

Demographic Comparisons

Because demographic characteristics represent a window into the heterogeneity of experience when it comes to stress and coping during the COVID-19 pandemic, the four most frequently reported sources of stress and sources of joy/comfort were compared across age groups (split at age 70), sex (female vs. male), marital status (married/partnered vs. single/divorced/widowed), income (split at \$75k), and retirement status (retired vs. working part- or full time); comparisons are given in Table 4. Although differences were not tested using significance tests, there are some observations that are helpful in providing an initial understanding of demographic differences in experience.

For sources of stress, Concern for Others, Isolation/Loneliness, and Confinement/Restrictions consistently appeared in the “top 4” across demographic groups; other categories emerging, depending on the group, were Shopping, Government, Economy/Finances, and Work. Considering age, Concern for Others, which was the most frequent category for those in their 60s, did not make it into the top 4 for those 70 and older; rather, those aged 70 and older had higher rates of stress related to the government response. While men and women both reported Isolation/Loneliness and Confinement/Restrictions as their top two stressors, women's next most frequent sources of stress were Concern for Others and Shopping, whereas for men the Economy/Finances and Unknown Future categories earned the third and fourth “most stressful” spots. Isolation/Loneliness topped the stress list for those who were single/divorced/widowed, and Shopping, which did not make the “top 4” for married/partnered participants, earned the second spot; married/partnered participants had higher rates of the Concern for Others and Unknown Future categories. Considering income, those in the lower income group had Shopping in the fourth most frequent source of stress position, whereas the Government category took the fourth spot for those in the higher income group; the lower income group also had a higher rate for the Isolation/Loneliness category. Finally, the most frequently reported source of stress for those who were still working was Work/Job Status, whereas fully retired participants had higher rates in the Confinement/Restrictions category.

For sources of Joy/Comfort, Family/Friends earned the top spot across demographic groups; Digital Communication, Pets, and Hobbies/Entertainment tended to round out the “top 4,” with the Spouse and Peace of Mind categories also making an occasional appearance. Those in their 60s were more likely to report pets as a source of comfort/joy, whereas the Spouse category was more common for those aged 70 and older; the older group also had higher rates for Digital Communication as a source of comfort/joy. Women had higher rates for the Digital Communication and Pets categories, whereas men more frequently reported joy/comfort in the Spouse and Peace of Mind categories. As would be expected, Spouse

Table 3. Psychological Well-Being Associations for Each Stressor and Joy

Category	N	Perceived stress			Negative affect			Positive affect		
		Yes mean	No mean	t test	Yes mean	No mean	t test	Yes mean	No mean	t test
<i>Sources of stress</i>										
Restrictions/Confinement	105	17.5	17.6	0.48	34.4	35.2	2.24	41.9	41.9	0.15
Concern for Others	98	18.0	17.5	-1.48	36.2	35.0	-3.09*	41.9	41.9	-0.10
Isolation/Loneliness	96	17.3	17.6	1.17	35.2	35.1	-0.29	41.7	41.9	0.60
Unknown Future	72	17.9	17.6	-0.95	36.5	35.0	-3.47**	41.8	41.9	0.16
Shopping	59	17.0	17.7	2.14^	34.9	35.1	0.32	42.3	41.9	-0.87
Government	57	18.1	17.6	-1.09	36.7	35.0	-2.70*	42.4	41.9	-1.07
News	54	18.5	17.5	-2.08^	36.6	35.0	-2.66*	42.2	41.9	-0.59
Household Stresses	46	17.9	17.6	-0.57	35.0	35.1	0.11	41.5	41.9	0.74
Adapting to Change	44	17.8	17.6	-0.37	34.5	35.2	1.23	41.6	41.9	0.59
Work	43	18.6	17.5	-1.96^	36.4	35.0	-2.01^	41.6	41.9	0.55
Economy/Finances	40	17.9	17.6	-0.87	35.4	35.1	-0.42	42.2	41.9	-0.56
Lack of Motivation/Focus	37	19.5	17.5	-2.82*	36.2	35.1	-1.78	40.9	42.0	1.61
Getting/Preventing Virus	37	19.7	17.5	-3.36*	37.7	35.0	-3.08*	41.4	41.9	0.81
Mental Health/Distress	35	18.2	17.6	-1.10	35.0	35.1	0.22	40.8	42.0	2.21^
Boredom	35	17.1	17.6	0.88	34.5	35.1	1.00	40.9	41.9	1.81
<i>Sources of joy</i>										
Family/Friends	244	17.5	17.7	0.85	35.0	35.2	0.75	42.3	41.7	-2.09^
Digital Interaction	175	17.3	17.7	1.51	34.7	35.2	1.77	42.3	41.8	-1.62
Hobbies/Entertainment	150	17.6	17.6	0.06	35.2	35.1	-0.34	41.5	42.0	1.48
Pets	150	18.2	17.5	-2.57*	35.9	34.9	-2.61*	41.0	42.1	3.12*
Spouse/Partner	119	17.5	17.6	0.56	35.5	35.0	-1.20	41.8	41.9	0.24
Faith	90	16.7	17.7	4.03**	33.9	35.3	2.96*	43.2	41.7	-3.74**
Nature	82	17.5	17.6	0.27	35.4	35.1	-0.69	43.0	41.8	-2.85*
Peace of Mind	86	17.1	17.7	1.96^	35.2	35.1	-0.09	42.1	41.9	-0.41
Exercise/Self-Care	62	16.8	17.7	3.22*	35.0	35.1	0.17	43.5	41.8	-3.90**
Grandkids	60	17.6	17.6	-0.03	34.5	35.1	0.20	42.4	41.9	-1.03
Food/Drink	40	17.7	17.6	-0.15	35.6	35.1	-0.69	41.0	41.9	1.47

^ $p \leq .05$, * $p \leq .017$, ** $p \leq .001$; all tests are two-tailed, comparing those who reported a given stressor or joy with those who did not report that stressor or joy. Bold values indicate statistically significant mean differences.

Table 4. Demographic Comparisons of “Top 4” Stress and Comfort/Joy Categories

		N	Top 4 Stress/Challenge categories by percent		Top 4 Joy/Comfort categories by percent	
Age (years)	60–69	519	1. Concern for Others	11.8%	1. Family/Friends	27.8%
			2. Isolation/Loneliness	10.7%	2. Pets	18.4%
			3. Confinement/Restrictions	9.9%	3. Hobbies/Entertainment	17.1%
			4. Shopping	7.0%	4. Digital Communication	17.1%
	70+	294	1. Confinement/Restrictions	13.5%	1. Family/Friends	29.2%
			2. Isolation/Loneliness	11.0%	2. Digital Communication	23.9%
			3. Government	7.2%	3. Hobbies/Entertainment	18.6%
			4. Shopping	6.9%	4. Spouse	16.4%
Sex	Female	629	1. Isolation/Loneliness	11.6%	1. Family/Friends	29.3%
			2. Confinement/Restrictions	11.5%	2. Digital Communication	21.7%
			3. Concern for Others	11.0%	3. Pets	19.9%
			4. Shopping	7.1%	4. Hobbies/Entertainment	18.4%
	Male	164	1. Confinement/Restrictions	11.3%	1. Family/Friends	23.7%
			2. Isolation/Loneliness	7.9%	2. Spouse	18.6%
			3. Economy/Finances	7.3%	3. Hobbies/Entertainment	15.3%
			4. Unknown Future	7.3%	4. Peace of Mind	11.3%
Marital status	Married/partnered	580	1. Confinement/Restrictions	13.0%	1. Family/Friends	27.2%
			2. Concern for Others	11.2%	2. Spouse	18.3%
			3. Isolation/Loneliness	10.2%	3. Digital Communication	17.8%
			4. Unknown Future	6.9%	4. Hobbies/Entertainment	17.5%
	Single/widowed	237	1. Isolation/Loneliness	12.4%	1. Family/Friends	30.9%
			2. Shopping	7.7%	2. Digital Communication	23.6%
			3. Confinement/Restrictions	7.3%	3. Pets	22.8%
			4. Concern for Others	6.6%	4. Hobbies/Entertainment	18.1%
Income status	Lower income (<75k)	378	1. Isolation/Loneliness	11.4%	1. Family/Friends	29.0%
			2. Confinement/Restrictions	10.9%	2. Digital Communication	22.3%
			3. Concern for Others	8.7%	3. Hobbies/Entertainment	21.3%
			4. Shopping	8.2%	4. Pets	20.1%
	Higher income (75k+)	391	1. Concern for Others	11.4%	1. Family/Friends	27.9%
			2. Confinement/Restrictions	10.9%	2. Digital Communication	17.0%
			3. Isolation/Loneliness	8.7%	3. Spouse	17.0%
			4. Government	8.2%	4. Pets	15.8%
Retirement status	Fully retired	532	1. Confinement/Restrictions	13.2%	1. Family/Friends	28.5%
			2. Isolation/Loneliness	10.9%	2. Digital Communication	22.6%
			3. Concern for Others	9.8%	3. Hobbies/Entertainment	19.3%
			4. Shopping	7.5%	4. Pets	15.7%
	Working full- or part-time	277	1. Work/Job Status	12.8%	1. Family/Friends	28.7%
			2. Isolation/Loneliness	10.8%	2. Pets	21.3%
			3. Concern for Others	10.1%	3. Hobbies/Entertainment	15.2%
			4. Confinement/Restrictions	8.1%	4. Digital Communication	14.2%

Notes: Due to homogeneity in racial/ethnic makeup of the sample, comparisons by race/ethnicity were not possible. Percentages are higher for the Joy/Comfort categories due to the higher rate of multiple sources listed per participant. Group Ns do not sum to 825 due to demographic items left blank.

was the second most frequent source of joy/comfort for married/partnered participants; single/divorced/widowed participants had higher rates of responses in the Digital Communication and Pets categories. The “top 4” was largely consistent across income groups, with one exception: Hobbies/Entertainment was more frequently endorsed for those in the lower income group, whereas the higher income group had higher rates for the Spouse category. Finally, considering retirement status, those who were fully retired more frequently reported Digital Communication as

a source of comfort/joy, whereas those still working were more likely to report Pets as a source of comfort/joy.

Discussion and Implications

Overall, the sources of stress and joy that emerged from participant responses paint a nuanced picture of older adults’ experience during the early weeks of the COVID-19 pandemic. As would be expected based on the TTSC

(Lazarus & Folkman, 1984), sources of stress tended to reflect specific aspects of the COVID-19 experience, such as worry about the future, restrictions, and social isolation; sources of joy, on the other hand, tended to be resources, relationships, or activities that pre-dated the pandemic. Importantly, most of the sources of joy and comfort that emerged, including social support, faith, hobbies, and exercise/self-care, fit within the category of *emotion-focused coping resources*—those behaviors that help us adjust our own emotions or perspective of the stressor. This aligns with the TTSC expectation that, for stressors outside of one's personal control, like COVID-19, emotion-focused coping behaviors will be more utilized and more effective (Lazarus & Folkman, 1984).

Sources of Stress

Primary sources of stress or challenge tended to cluster around (a) pandemic-related worry or anxiety, (b) pandemic-induced restrictions and resulting confinement and isolation, (c) pandemic-related changes in everyday life, (d) how others were responding to or reporting about the pandemic, and (e) overall well-being. These themes align with the features of COVID-19 expected to be stressful—uncertainty, isolation, economic volatility, and health vulnerability (Lee et al., 2012; Stahl et al., 2017; Whitehead & Bergeman, 2015)—but also highlight additional aspects experienced as stressful by older adults. For example, frustration with others' behavior, boredom, and concern for the future are stressors that emerged thanks to the qualitative nature of the analysis.

Following the qualitative analysis with the quantitative comparisons permitted a clearer understanding of associations between participant-volunteered stressors and psychological well-being. Not surprisingly, those who raised contracting the coronavirus as a concern had significantly higher stress and NA levels than those who reported alternate sources of stress; other categories in the overarching worry/anxiety theme—being concerned about others, being anxious about the unknown future, and hearing news reports—also led to significantly higher NA. This worry/anxiety theme likely captures the uncertainty participants were feeling in regard to the pandemic. Recent work suggests that chronic uncertainty is the driving mechanism behind “allostatic load,” a term referring to the cumulative effects of stress on the brain and the body (Peters et al., 2019). A recent article specifically exploring the 24-h news cycle in the context of COVID-19 and older adults highlights the substantial mental health costs of “staying informed” (Schroyer, 2020).

That being stressed by governmental action (or inaction) is also associated with higher NA is reflective of the divisive political climate of the time; anecdotally, the responses in this category tended to be more vitriolic than those in any other category, reflecting an intensity of feeling that is likely

to be captured by the NA measure. A similar “sign of the times” was captured by the frequency of shopping-related stress responses such as reduced shopping hours, empty shelves, and added health risks of a grocery.

Participants reporting their greatest stressor to be difficulty focusing or lack of motivation had significantly higher stress levels than those who did not report this stressor. This source of stress is likely so salient because of its ties to depression: lack of motivation and anhedonia are classic indicators of depressive symptomatology, and cognitive symptoms of depression like inability to focus become much more apparent in older adults (Rodda et al., 2011). Although little empirical work on COVID-19 and depression in older adults has yet been published, a working paper available from a collaboration of researchers in the United Kingdom reports finding higher levels of depression and anxiety symptoms during the population-based survey taken between March 23 and March 28, 2020, than in previous (nonpandemic) population surveys; they also note that older adult participants had higher levels of anxiety specifically related to COVID-19 than did younger adults (Shevlin et al., 2020).

Sources of Joy

Considering sources of joy or comfort, categories tended to cluster around (a) social connection, (b) distraction/keeping busy, and (c) emotion-focused coping. These themes align with the theory- and literature-informed expectations that, in the context of a stressor outside of individual control like COVID-19, resources that serve to address our own mindset or behavior—rather than target the stressor itself—will be most effective at reducing distress (Bae et al., 2015; Worthington & Scherer, 2004).

Considering the social distancing impact of COVID-19, it is fitting that family, friends, spouse, and digital social interactions would be frequently endorsed; social support consistently emerges as a primary coping resource in the literature (Garipey et al., 2016; Howard et al., 2017). Hobbies and entertainment activities were most frequently reported after social interactions; although distraction can be a maladaptive coping approach in contexts where the stressor is directly within one's control, distraction can be adaptive in situations where the stressor is outside of one's control, as is the case for COVID-19 (Allen & Leary, 2010; Webb et al., 2012).

Faith is also a coping resource frequently reported by the current generation of older adults, particularly in times of limited control (Almazan et al., 2018; Jackson & Bergeman, 2011; Whitehead, 2018), and lends itself well to contexts of confinement and isolation; that technology now permits religious communities to maintain contact with congregants via live-streamed services also lends additional salience to religious coping approaches in pandemic times. The quantitative analysis also revealed faith to be the only source of joy/comfort significantly related to all

three psychological well-being domains. The frequency of Peace of Mind responses points to the common utilization of reappraisal and gratitude practices; such an “attitude of gratitude” is a hallmark of what has been termed *resilient coping* (Lavretsky, 2014, p. 34). Finally, exercise and self-care were common sources of joy/comfort. That exercise was significantly related to less stress and more PA supports findings highlighting physical activity and health-behavior-based interventions as effective mood boosters and stress relievers for older adults (Seah et al., 2019; Whitehead & Blaxton, 2017).

It is interesting to note that participants who identified pets in their joy/comfort responses (the fourth highest response) had higher levels of stress and NA, and lower PA, than those who did not. It is difficult to interpret this finding in light of the limited information available, but it is possible that, although pets do bring joy and comfort, they are also sources of stress. For example, pets may make messes, add to financial strain, or make demands on participants’ time or routine that participants without pets do not experience. A recent review of the literature identified pet ownership as having both pros and cons in the context of older adults and well-being and highlights the importance of continued investigation of these effects (Obradovic et al., 2019). Whatever the underlying mechanism here, it is clear that the relationship between pet ownership and well-being in times of macro-level stress is complex and warrants further research.

Demographic Comparisons

Although not a primary aim of the present study, the comparison of stress and joy/comfort responses across demographic characteristics is an important step toward recognizing and understanding the heterogeneity in experience that can be linked with demographic status. The comparisons across sex, for example, likely reflect the different stress experiences stemming from cultural norms related to gendered responsibilities in the household. Demographic differences in coping resources emerged in the marital status comparison, where married/partnered participants frequently reported their spouse as a primary source of comfort and joy; participants without this partnership relied more heavily on digital communication and pets to fill their need for social support and interaction. In the context of TTSC, demographic characteristics represent important resources and vulnerabilities, making more exploration of these effects on the COVID-19 experience an important avenue for future research.

Applications, Limitations, and Conclusions

The findings of the present study can be applied practically in the context of distress-targeted education and intervention efforts. Given the variety of ways in which

the COVID-19 pandemic and other macro-level stressors could be experienced as stressful, understanding the particular experience of a given person presenting with distress provides a guiding framework for intervention. For example, those most distressed by the lack of freedom or restrictions may benefit most from mindfulness approaches (see Hazlett-Stevens et al., 2019 for a review); those most bothered by the social isolation, on the other hand, may be most helped via a program introducing digital communication or social media platforms (Quan-Haase et al., 2017), as long as they are informed by considerations of both health-related (e.g., visual impairment and dexterity limitations) and nonhealth-related (e.g., digital illiteracy and limited internet access) issues that may influence older adults’ engagement (Ang et al., 2020). Given that distress associated with loneliness and isolation is linked with particularly detrimental effects on health and well-being in later life (Courtin & Knapp, 2017; Mushtaq et al., 2014), finding creative ways to address this issue in the midst of social distancing is essential. Thankfully, such interventions can be effectively provided via telemedicine.

Naturally, the generalizability of the quantitative results is limited by the largely homogeneous sample, as people of color, men, and those older than age 75 were underrepresented. Although qualitative analysis is less concerned with generalizability, characteristics of the sample likely influenced the sources of stress and joy/comfort reported; a study capturing a more diverse sample of older adults may identify different sources of pandemic-related stress and joy/comfort. A second limitation is the text-box nature of the qualitative data, which did not permit the in-depth information on stresses and joys that an interview procedure would provide. This approach did permit a much larger sample size than is typical for a study involving qualitative analysis, and the results here are therefore likely to represent a broader range of experience than studies relying on smaller samples. Third, the day-level framing of the data collection (having participants report about their experience over the last day) limits the experience to this particular point in the COVID-19 pandemic, but this anchoring also permits the capture of the micro-level experience of older adults that is not as prone to recall biases as are more global measures. Finally, the scope of the present study is limited to considering the separate direct relationships of stressors and coping efforts with older adults’ well-being; considered within the context of the TTSC, stressors and coping behaviors dynamically interact over time, and an important opportunity for future work is to examine the stress and coping of older adults experiencing a pandemic in a more process-driven way, perhaps via longitudinal or multivariate analysis.

Overall, the mixed-method approach taken here—conducting a qualitative analysis followed by quantitative comparisons—provides a more nuanced picture of how older adults experienced the early weeks of the COVID-19 pandemic than could a study utilizing only qualitative

or only quantitative measures. The variety of stressors and joys, and the variation across demographic characteristics, reflect the heterogeneity of experience, and the associations of these stressors and joys with psychological well-being provide a window into the stress experience. One important reality to acknowledge is that distress is a normative, nonpathological response to a stressor the magnitude of the COVID-19 pandemic (Vinkers et al., 2020); although there are some who do not find it stressful, it is not practical to expect the general population to not experience stress in such contexts. One contribution of the present research is the normalization of the felt stress—and the many sources of stress—experienced by older adults during the pandemic. Equally important, however, is the evidence for participants' creative engagement of a variety of coping resources and strategies that were still bringing joy and comfort in a socially distanced, pandemic world.

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Conflict of Interest

None declared.

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