

# Thriving During COVID-19: Predictors of Psychological Well-Being and Ways of Coping

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## Abstract

COVID-19 has led to global dramatic shifts in daily life. Following the biopsychosocial model of health, the goal of the current study was to predict people's psychological well-being (PWB) during the initial lockdown phase of the pandemic and to investigate which coping strategies were most common among people with low and high PWB. Participants were 938 volunteers in the United States who responded to an online survey during pre-peak of the lockdown in April 2020. The main findings were that all three groups of variables—biological, psychological, and socio-economic—significantly contributed to PWB, explaining 53% variance. Social loneliness and sense of agency were the strongest predictors. PWB was significantly predicted by physical health (not gender nor age); by spirituality, emotional loneliness, social loneliness, and sense of agency; by job security (not income, nor neighborhood safety, nor hours spent on social media). Comparing the coping strategies of participants, results show more intentional coping in the high-PWB group and more passive coping in the low-PWB group. During this unprecedented pandemic, the findings highlight that ability to sustainably cope with the global shifts in daily life depends on actively and intentionally attending to PWB by being one's own agent for physical health, spiritual health, and social connection.

## Purpose

The goal of the current study is twofold: a) based on the biopsychosocial model of health, to investigate which variables best predict increased psychological well-being (PWB) during this pandemic, and b) to identify which ways of coping are associated with high PWB and low PWB.

## Theoretical Frameworks

According to the biopsychosocial model of health, there might be multiple biological, psychological, and social factors that could affect PWB. We comprehensively investigated eleven predictors of PWB that belong to three groups: biological, psychological, and social and economic variables.

- Gender** - Women tend to have lower PWB than men.
- Age** - Older individuals tend to have higher PWB.
- Health** - Individuals with poor physical health tend to have lower PWB.
- Spirituality** - Practicing spiritual activities and spirituality have marked benefits towards PWB.
- Emotional Loneliness** - The feeling of loneliness has been negatively related to PWB.
- Social Loneliness** - Being alone has a detrimental effect to PWB and health outcomes.
- Sense of agency** - There is a positive relationship between sense of agency and control with PWB.
- Social Media** - It is unclear what effects social media usage has on PWB.
- Neighborhood Safety** - Neighborhood safety benefits PWB, particularly in elderly populations.
- Job Security & Income** - Unemployment, job instability, and lack of income are overall harmful to PWB.

## Coping

Past research on coping with extreme events has shown that it is not so much the event per se that affects well-being, but more so the psychological processing of the event. In a narrative synthesis of research that investigated coping responses in past outbreaks of infectious diseases, researchers identified four responses: problem-focused coping, avoidance/denial/distraction, positive appraisal, and seeking social support.

What can you do to maintain psychological well-being during a pandemic?



Read the full study here!

Figure 1. Descriptive statistics and bootstrapped Pearson correlations for variables measured

	M	SD	PWB	Gender	Age	Physical Health	Spirituality	Emotional loneliness	Social loneliness	Sense of Agency	Social Media Usage	Neighborhood Safety	Job security
PWB	5.55	1.14											
Gender	37.34	13.41	-.07*										
Age	37.34	13.41	.23***	-.12***									
Physical Health	3.81	2.21	.40***	.02	.12**								
Spirituality	4.28	3.57	.31***	-.13***	.32***	.17***							
Emotional Loneliness	1.70	0.93	-.33***	-.007*	-.23***	-.17***	.02						
Social Loneliness	1.40	1.28	-.52***	.08	-.18***	-.19***	.17***						
Sense of Agency	7.28	1.39	.54***	-.009	.21***	.30***	.18***	-.26***					
Social Media Use	4.30	2.73	-.05	-.16***	-.08*	-.09**	.14***	.13***	-.01	-.02			
Neighborhood Safety	8.13	2.06	.28***	-.16	.18***	.20***	.17***	-.13***	-.23***	.20***	.02		
Job Security	3.33	0.62	.31***	-.03	.22***	.02	.05	-.19***	-.13***	.13***	-.06	.04	
Income	7.5	2.67	.26***	.02	.14***	.10*	-.18***	-.21***	-.16***	-.11*	.26***	.35***	

\*\*\* p < .001, \*\* p < .01, and \* p < .05

Figure 2. Frequencies and chi-square results for coping behaviors in low versus high PWB groups

Variable	Low PWB	%	High PWB	%	χ <sup>2</sup>
Having more time with family or people I live with	81	27.5	186	57.9	58.18***
Having more time on social media (text, face-to-face communication)	28	9.5	14	4.4	6.37*
My current housing situation	52	17.6	73	22.7	2.49
Having more time for myself to rest/reflective/energize/relax/down	100	33.9	146	45.5	8.00**
Not having to drive/commute around so much	121	41.0	101	31.5	6.09*
The outdoors, nature, the environment	66	22.4	103	32.1	7.29**
More time with daily living: cooking, cleaning, organizing	80	27.1	97	30.2	0.72
Getting to spend more time playing video games	65	22.0	27	7.8	25.01***
Getting to spend more time watching TV shows/movies	64	21.7	33	10.3	15.10***
Getting to spend more time relaxing with my pets	87	29.5	68	21.2	5.63*
Getting things done around the house	49	16.6	115	35.8	29.06***
I'm not spending a lot of money	141	47.8	148	45.5	0.33
Having fewer responsibilities	76	25.8	43	13.4	15.09***
Having efficient/working technology to continue work/school	47	15.9	58	18.1	0.50
Having a richer spiritual/inner life	21	7.1	39	12.1	4.43*
Ability to work from home - I know a lot of people can't	79	26.8	126	39.3	10.77***
Having more time to catch up on work/schoolwork	23	7.8	21	6.5	0.37
Since I work in an essential workplace, more time to work and make money	32	7.5	28	8.7	0.33
Having more time for hobbies/entertainment (e.g., playing board games, baking)	83	28.1	67	20.9	4.40*
Being creative and finding new ways for fun	37	12.3	43	13.4	0.10
Having more time for exercise and physical activity	38	12.9	52	16.2	1.36
Nothing	64	21.7	8	2.5	54.92***
Other	46	15.6	11	3.4	27.18***

\*\*\* p < .001, \*\* p < .01, and \* p < .05

## Methods

Participants were over 1,500 from 47 countries worldwide who voluntarily responded to the survey. We focused our analyses solely on the 938 participants from the United States because COVID-19 spread, developments, and circumstances differ widely between countries. Participants were not compensated, although we promised to share the study's results with those who were interested and provided their email addresses.

Participants were given a 40-question survey, as distributed across various social media websites. We started data collection on April 15, 2020, and we ended data collection on May 2, 2020, for this study.

The survey given consisted of 40 questions, which on average required twelve minutes to complete. All participants took longer than four minutes to complete the survey indicating deliberate responsiveness to the survey. The study, on top of novel questions, included several existing measures to increase validity. The Loneliness Scale and The Sense of Agency Scale were employed.

The full survey is available for view using the QR code link.

## Results

Firstly, by utilizing Bootstrapped Pearson correlations, our study found a number of variables which were correlated with either higher or lower psychological well-being (PWB). In the table below is the six most significant factors correlated with PWB in order of strength. This information is further expanded upon in Figure 1.

1. Sense of agency	2. Social Loneliness
3. Physical health	4. Spirituality
5. Emotional loneliness	6. Job Security

The second finding of our study focused on a series of 23 items relating to what the participant liked about the then-current situation of quarantine. Participants were sorted into one of the groups based on average score in response to an 8-item scale created for this survey. For comparison, we looked at those in the highest and lowest PWB to determine which coping mechanisms were most chosen by each. The most endorsed by each group is listed below in the two charts, and further expanded upon in Figure 2.

High Psychological Well-being		Low Psychological Well-being	
Having more time with loved ones	Having the ability to work from home	Spending more time to play video games	Appreciating having fewer responsibilities
Having more time to spend in nature	Having more time to themselves	Spending more time watching TV shows/movies	Employing no particular coping strategy/ I enjoy nothing
Completing projects around their living space			

## Discussion

COVID-19 is a health crisis that requires dramatic behavioral changes in the population. Thus, it is necessary to look at findings from the behavioral and social sciences. Many of the demographic factors which played a role in PWB were not only uncontrollable to an extent, but were also largely psychological. Emphasizing psychological health in addition to physical health is critical during a pandemic and quarantine period. Optimal PWB coping strategies were those that were active and purposeful, and should be encouraged by healthcare and governing bodies.

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"Coronavirus" by barurezeki, "Choice" and "Job" by Adrien Coquet, "Heartbroken Man" by Akshar Pathak, "Lonely" by Phạm Thanh Lộc, "Pray" by Susannanova, "Security" by Gan Khoon Lay, and "Social Media" by Nanda Riziz were created for The Noun Project, and utilized for this poster under the Creative Commons License.

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