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# Age-Related Differences in Experiences With Social Distancing at the Onset of the COVID-19 Pandemic: A Computational and Content Analytic Investigation of Natural Language From a Social Media Survey

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## *Abstract*

**Background:** As COVID-19 poses different levels of threat to people of different ages, health communication regarding prevention measures such as social distancing and isolation may be strengthened by understanding the unique experiences of various age groups.

**Objective:** The aim of this study was to examine how people of different ages (1) experienced the impact of the COVID-19 pandemic and (2) their respective rates and reasons for compliance or noncompliance with social distancing and isolation health guidance.

**Methods:** We fielded a survey on social media early in the pandemic to examine the emotional impact of COVID-19 and individuals' rates and reasons for noncompliance with public health guidance, using computational and content analytic methods of linguistic analysis.

**Results:** A total of 17,287 participants were surveyed. The majority (n=13,183, 76.3%) were from the United States. Younger (18-31 years), middle-aged (32-44 years and 45-64 years), and older (≥65 years) individuals significantly varied in how they described the impact of COVID-19 on their lives, including their emotional experience, self-focused attention, and topical concerns. Younger individuals were more emotionally negative and self-focused, while middle-aged people were other-focused and concerned with family. The oldest and most at-risk group was most concerned with health-related terms but were lower in anxiety (use of fewer anxiety-related terms) and higher in the use of emotionally positive terms than the other less at-risk age groups. While all groups discussed topics such as acquiring essential supplies, they differentially experienced the impact of school closures and limited social interactions. We also found relatively high rates of noncompliance with COVID-19 prevention measures, such as social distancing and self-isolation, with younger people being more likely to be noncompliant than older people ($P<.001$). Among the 43.1% (n=7456) of respondents who did not fully comply with health orders, people differed substantially in the reasons they gave for noncompliance. The most common reason for noncompliance was not being able to afford to miss work (n=4273, 57.3%). While work obligations proved challenging for participants across ages, younger people struggled more to find adequate space to self-isolate and manage their mental and physical health; middle-aged people had more concerns regarding childcare; and older people perceived themselves as being able to take sufficient precautions.

**Conclusions:** Analysis of natural language can provide insight into rapidly developing public health challenges like the COVID-19 pandemic, uncovering individual differences in emotional experiences and health-related behaviors.

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