**Project/Data Title:** Online search trends and word-related emotional response during COVID-19 lockdown in Italy

**Project/Data Description: (200-500 words brief description of the theory/background for the data)**

The strong and long lockdown adopted by the Italian government to limit COVID-19 spreading represents the first threat-related mass isolation in history that can be studied in depth by scientists to understand individuals’ emotional response to a pandemic. The perception of a pandemic threat through invasive media communication, such as that related to COVID-19, can induce fear-related emotions (Van Bavel et al., 2020). The dimension theory of emotions (Osgood & Suci, 1955) assumes that emotive space is defined along three dimensions: valence (indicating the way an individual judges a stimulus; from unpleasant to pleasant), arousal (indicating the degree of activation an individual feels towards a stimulus; from calm to excited) and dominance (indicating the degree of control an individual feels over a given stimulus; from out of control to in control). Fear is characterized as a negatively valenced emotion, accompanied by a high level of arousal (Witte, 1992; Witte, 1998) and a low dominance (Stevenson, Mikel & James, 2007). This is generally in line with previous results showing that participants judged stimuli related to the most feared medical conditions as the most negative, the most anxiety-provoking and the least controllable (Warriner, Kuperman & Brysbaert, 2013). Fear is also characterized by extreme levels of emotional avoidance of specific stimuli (Perin et al., 2015) and may be considered a unidirectional precursor to psychopathological responses within the current context (Ahorsu et al., 2020). dealing with fear in a pandemic situation could be easier for some people than others. Indeed, individual differences have been associated with behavioral responses to the pandemic status (Carvalho Pianowski & Gonçalves, 2020).

To mitigate the COVID-19 effects on individuals’ mental health, it is compelling to evaluate their emotional response to this emergency. Internet searches is a direct tool to address this issue. Indeed, it has been reported that COVID-19 affected the content that people explored online (Effenberger et al., 2020), and online media and platforms offer essential channels where people convey their feelings and emotions and seek health-related information (Kalichman et al., 2003; Reeves, 2001). In particular, Google Trends is an available data source of real-time internet search pattern, which has been demonstrated to be a valid indicator of people’s desires and intentions (Payne, Brown-Iannuzzi & Hannay, 2017; Pelham et al., 2018). Thus, the amounts of COVID-19-related internet searches revealed by Google Trends are an indicator of how people feel about concepts related to the COVID-19 pandemic. A shift in online search trends reflects a change in participants’ interests and attitudes towards a specific topic. Based on the topic, the context (i.e., the reasons causing this change), and this mutated interest per se, it is possible to predict people’s behavior and affective response towards the topic in question. In this study, we aim to understand how emotional reaction and online search behavior has changed in response to the COVID-19 lockdown in the Italian population.

**Methods Description:** (brief description of how the data was collected)

Data were collected in the period from May 4th to May 17th, 2020, the last day of full lockdown in Italy, from 71 adult native Italian speakers (56 females and 13 males; mean (SD) age = 26.2 (7.9) years; mean (SD) education = 15.3 (3.2) years). There were no other specific eligibility criteria. An online survey was conducted using Google Forms to collect affective ratings during the lockdown caused by the COVID-19 epidemic in Italy. In particular, we asked participants to complete the Positive and Negative Affect Schedule (PANAS, Terraciano, McCrae & Costa, 2003) and Fear of COVID-19 Scale (FCV-19S, Ahorsu et al., 2020) and judged valence, arousal, and dominance (on a 9-point self-assessment manikin, Montefinese et al., 2014) of words either related or unrelated to COVID-19, as identified by Google search trends. The word stimuli consisted in 3 groups of 20 words each. The first group (REL+) consisted in the words showing the largest positive relation between their search trends and the search trend for the COVID-related terms. By contrast, the second group (REL-) consisted in the words showing the largest negative relation between their search trends and the search trend for the COVID-related terms. In other words, the COVID-19 epidemic in Italy, and the consequent increase in interest for the COVID-related terms, was related to a similar increase of interest for the REL+ words and a decrease of interest for the REL- words. The third group (UNREL) consisted in the words for which the search trend was unrelated to the search trend for the COVID-related terms.

**Data Location:** https://osf.io/we9r4/

**Date Published:** 2021-08-21

**Dataset Citation:** Dataset: Montefinese, M., Ambrosini, E., & Angrilli, A. (2021, June 5). Online search trends and word-related emotional response during COVID-19 lockdown in Italy. https://doi.org/10.17605/OSF.IO/GVH2Q

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**Keywords:** Covid-19; Emotional response; Online search; Lockdown; Coping

**Use License:** CC-By Attribution 4.0 International

**Geographic Description - City/State/Country of Participants:** Italy

Column Metadata: Fill in the chart below for each column of data in the dataset. Please note you can filter out columns that are not useful for this project.

|  |  |  |
| --- | --- | --- |
| Variable Name | Variable Description | Type (numeric, character, logical, etc.) |
| ssID | Participant code | Numeric |
| Gender | Participants’ gender | Character |
| Age | Participants’ age | Numeric |
| Education | Participants’ years of education | Numeric |
| Measure | Questionnaires and ratings (PANAS, COVID-19 fear, valence, arousal, dominance) | Character |
| ITEM (ITA) | Test items and word stimuli | Character |
| Stim Type | Word condition (REL+, REL-, UNREL) | Character |
| Response | Participants’ scores to the questionnaires and ratings | Numeric |

What columns should we use to simulate the data?

* **Item labels are found:** ITEM (ITA)
* **Variable(s) of interest are found:** Measure, Stim Type, Response

Goals: we will use this data to provide examples of our simulation process on how to determine sample size for a project based on item rather than participant. You can read about this idea here: <https://github.com/SemanticPriming/SPAML/blob/master/02_Power/power_aipe.pdf> We will use the example provided in this link as the main portion of the paper and then add your data as a vignette example to supplement the paper. You will be considered an author for completing this template worksheet (no coding skills necessary, we will do that part), and reviewing/commenting on the draft of the paper. Please email [007spaml@gmail.com](mailto:007spaml@gmail.com) if you have questions.