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Katerina Standish

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## COVID-19, suicide, and femicide: Rapid Research using Google search phrases

Katerina Standish

University of Otago

### ABSTRACT

Psychologist Eric Miller of Kent State University has termed COVID-19 “the Loss and Trauma Event of Our Time.” In this paper, I would like to problematize the public health response to the virus outbreak in light of two consequential and preventable traumas that shadow the COVID-19 calamity: femicide and suicide. As public health reaction to the pandemic is seen to negatively increase rates of domestic violence and suicidality this research accessed rapidly available data using Google Date Range analysis by utilizing queries from pre- and post-pandemic comprising the months of March-August in the years 2019 and 2020. The aim of this rapid-response research is to glimpse the possible presence of psychological stress in online searches that relate to debilitation in the four foundational strata of Maslow’s Hierarchy of Human needs (basic and psychological needs). To search basic needs related to COVID-19 the following categories were utilized in online search phrases in Google (US): *precarity* and *insecurity*. To search basic and psychological needs related to suicide the following categories were utilized in online search phrases in Google (US): *despondency* and *helplessness*. Finally, to search basic and psychological needs related to femicide the following categories were utilized in online search phrases in Google (US): *indicative male violence* and *intentional male violence*. Results show an overwhelming upsurge from all six categories from 31% to 106%.

### ARTICLE HISTORY

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### KEYWORDS

COVID-19; suicide; femicide;  
content analysis;  
web research

The COVID-19 pandemic was first discovered in China in 2019. Since that time, the World Health Organization (WHO) have charted over 80 million confirmed cases with almost two million deaths (WHO, 2020a).<sup>1</sup> The disease is considered a serious worldwide threat, has killed citizens of over 180 countries and shows few signs of containment. The outbreak was officially declared a global pandemic in March 2020, and 6 months later the WHO averred that, “the Region of the Americas continues to carry the highest burden of COVID-19 globally, accounting for over 38% of all new cases reported in the past seven days” (WHO, 2020b, para 3).

**CONTACT** Katerina Standish  [katerina.standish@otago.ac.nz](mailto:katerina.standish@otago.ac.nz)  National Centre for Peace and Conflict Studies, University of Otago, Dunedin, New Zealand.

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Any consideration that the scope and reach of the virus is decreasing is countered with new threats of second wave infections (Xu & Li, 2020) as well as so-called long-COVID manifestations with lingering and debilitating physiological and psychological consequences (Mahase, 2020). In recognition of the momentous global impact of the virus the 75th UN General Assembly from 15 to 30 September, 2020 urged its member states the following:

Maintain the momentum towards achieving the Sustainable Development Goals. The pandemic risks unravelling decades of gains made in health and development. According to a recent WHO survey, 90% of countries are experiencing disruptions to essential health services (WHO, 2020c, p. 10).

The illness has directed resources to public health initiatives that seek to tackle the incidences, risk, spread and effect of the disease and the impacts of such worldwide calamity have created a new taxonomy of human living—one characterized by physical distancing, forced isolation, personal protection equipment (PPE), contact tracing, and for many, reduced financial and emotional succor (Alola et al., 2020; Gavi, 2020). The benefits of the biomedical public health model seen in countries such as South Korea, Switzerland, Germany, Vietnam, and New Zealand have flattened infection curves, saved thousands of lives and limited the spread of COVID-19. It has also created a perfect storm for increases in domestic violence, including lethal femicide during lockdowns (Weil, 2020) and increases in suicidality related to anxiety, depression and grief (Gunnell et al., 2020; Reger et al., 2020).

Psychologist Eric Miller of Kent State University has termed COVID-19 “the Loss and Trauma Event of Our Time” (2020, p. 560).

We already know that those with pre-existing psychological problems, such as anxiety, are already facing difficulties in adjusting to the realities and fears of the pandemic... and there is already evidence of increased reports of domestic violence and abuse in the wake of the pandemic with its greater emphasis on staying at home (Miller, 2020, p. 563–564.)

In light of these actualities, in this article, I would like to problematize the COVID-19 threat and the public health response to the outbreak in light of two consequent forms of preventable violence: suicide and femicide. To unearth empirical evidence of the impact of the Coronavirus on existential confidence this research employs search engine date-range data collection in GOOGLE (US) pre- and post-pandemic comprising the months of March-August in the years 2019 and 2020. The aim of this rapid-response research is to glimpse the possible presence of psychological stress in online searches that relate to debilitation in the four foundational strata of Maslow’s Hierarchy of Human needs (two basic and two psychological needs). To search basic needs related to COVID-19 the following

**Table 1.** Google queries.

	Query 1	Query 2	Query 3
<i>Precarity</i>	Laid off	Can't pay bills	Lost my job
<i>Insecurity</i>	I can't count on anyone	I don't have anywhere I can	I don't know what is going to happen
<i>Despondency</i>	I want to die	I don't want to go on living	My life is over
<i>Helplessness</i>	Why won't someone help us	No one will help us	No one can help us
<i>Intentional Male Violence</i>	How to control your woman	How to hit a woman so no one knows	I am going to kill her when she gets home
<i>Indicative Male Violence</i>	He will kill me	Help me, he won't leave	He beats me up all the time

categories were utilized in online search phrases in Google (US): *precarity* and *insecurity*. To search basic and psychological needs related to suicide the following categories were utilized in online search phrases in Google (US): *despondency* and *helplessness*. Finally, to search basic and psychological needs related to femicide the following categories were utilized in online search phrases in Google (US): *indicative male violence* and *intentional male violence*. Results show an overwhelming upsurge from all six categories which include 18 separate search queries (see Table 1).

## Conceptual framework: COVID-19, suicide and femicide

### COVID-19

The novel coronavirus is a pandemic that will change the whole world. The epidemiological reality has had, and will continue to impact world economies, personal and community health, national and international security. In addition to the infection and death of millions of people there will be ongoing physiological and psychological impact as well. Evidence continues to grow that mental health problems including: “anxiety, depression, worsening of substance abuse... hopelessness... helplessness... and distress [especially for] people with pre-existing psychiatric morbidity” will all increase (Lingeswaran, 2020, p. 1). Administrative and emergency responses to COVID-19 are largely biomedical and triage risk and threat from the virus over the majority of other health and social concerns. The focus on limiting the spread of the virus and finding and administering a vaccine will trump all other social responses and this “perfect storm” will directly lead to a suicide pandemic and a femicide pandemic (Reger et al., 2020; Standish, 2020a; Weil, 2020).

### Suicide

The biggest form of preventable violent death worldwide is not “terrorism” or civil war it is suicide: deliberate self-killing. Suicides can be typologized

in a variety of ways but recent scholarship identifies two types (medical and instrumental) containing at least seven forms: suicide related to mental illness, assisted suicide, euthanasia, suicide attacks, protest suicides, daredevil suicides and homicide suicides (Standish, 2020a). The largest category of suicidal violence emerges from medical suicide related to mental illness. This form of suicide is typically characterized by mood disorders such as depression, anxiety, bipolar disorder, schizophrenia as well as substance abuse—all of which increase in times of financial stress (Salkever, 2020), unemployment (Tappe, 2020), social isolation (Goldberg, 2020), breakdowns in relationships (Campoamor, 2020), and experiences of violence, trauma and grief (Hawton & van Heeringen, 2009; Panczak et al., 2013; Phillips, 2010).

Of these affective disorders, depression, also known as major depressive disorder, is the most commonly experienced mental disorder by those that complete suicide. Although depression is a medical diagnosis of mental unwellness it can stem from myriad factors that relate to everything from our physiological instrument (the mind, the body) as well as our environments, living conditions and life experiences of loss, trauma and abuse (Standish, 2020a, p. 113).

Incidences of completed suicides are historically appreciated to spike after pandemics. And while this reality was seen after the Spanish flu (Wasserman, 1992) and SARS outbreaks (Chan, Chiu, Lam, Leung, & Conwell, 2006; Liu et al., 2012; Sher, 2020), suicide waves are currently being seen in Asia, Europe and the UK that are being directly attributed to the impact of the virus (Iacobucci, 2020; Nortajuddin, 2020; Sher, 2020; Vanttinen, 2020). Recent forecasting has indicated that the suicidal consequences of the COVID-19 pandemic will be far larger than any outbreak to date (Furceri, Loungani, Ostry, & Pizzuto, 2020) and that social distancing, as well as other measures could be causing increases in suicides (Knight, 2020). Limitations on support resources due to the methods of viral response (social distancing, lockdown, quarantine, isolation) in combination with increases in stress, anxiety, loneliness, grief, anger and PTSD mean that although suicides may be repressed in some countries during the COVID-19 biomedical response (Sher, 2020), they are expected to immediately follow the pandemic, in part due to the increases in personal stress and insecurity (CDC, 2020).

Official suicide statistics are difficult to access in real-time due to reporting constraints (rates are often posted 1–2 years later). Latest numbers from the US National Institute of Mental Health from 2019 list suicide as the second leading cause of death in 10–34-year old's and fourth cause of death from ages 35 to 54 (NIMH, 2020). Despite timely official stats being difficult to come by, news reports of suicides have signaled increases with recent suicides by health professionals (Edelman, Moore, Narizhnaya, &

Balsamini, 2020) with no pre-pandemic history of mental health issues (Iati & Bellware, 2020), cities citing suicide increases of up to 70% from last year (Raman, 2020), as well as spikes in military suicides (Lawrence, 2020; Martin, 2020). Indeed, while the numbers will likely not be available for months (if not years), many have already sounded the alarm of unprecedented levels of calls to suicide prevention sites seeking psychological support during COVID-19 (Sher, 2020).

Psychological stress has well established links to suicide and the pandemic is increasing levels of anxiety, depression, and fear. Van Orden et al. (2010) hypothesize that suicide is *interpersonal* and theorize two relational facets that can lead to suicide: *thwarted belongingness* and *perceived burdensomeness*. For Van Orden et al. there are two feelings that lead to a desire for suicide that can be encapsulated into the following two phrases: *I am alone* and *I am a burden*. In order to glimpse the possible presence of psychological stress in online searches pre- and post-pandemic related to suicidal violence during and following COVID-19 related to Van Orden et al.'s two sensibilities the following two search queries were used: *despondency* and *helplessness*. To indicate despondency the following three search queries are employed: *I want to die*, *I don't want to go on living*, and *my life is over*. To indicate helplessness the following three search queries are employed: *why won't someone help us*, *no one will help us*, and *no one can help us*.

### **Femicide**

Femicides are an unrelenting and often ignored social phenomenon of male violence against women that follow coercive control (Weil, 2020). Coercive controls are forms of power and possessiveness characterized by isolation, deprivation, threats of abuse and emotional, sexual and physical violence (Johnson, Eriksson, Mazerolle, & Wortley, 2019).

Men's violence in relationships is portrayed and broadly understood as occurring on a continuum of behaviors that form a pattern of power and control, possessiveness, jealousy, and emotional abuse, tools that are readily available for establishing and maintaining male dominance over women and children (Johnson et al., 2019, p. 7).

Femicides are murders of women that happen during home isolation and forced confinement that will unsurprisingly escalate during COVID-19 lockdowns (Polischuk & Fay, 2020; Weil, 2020). Distinct from other forms of male-perpetrated homicide, femicide occurs in the private sphere and increases during proximity to abusive partners typified by confinement to domestic spaces such as during the pandemic (Laurent, Platzer, & Idomir, 2013). In some places supports for potential victims of femicide are inaccessible or unavailable during lockdown (shelters close, staff are unable

to get to work to answer helplines). Additionally, women are less autonomous during domestic confinement due to monitoring, surveillance and coercive inhibition (telephone calls and texts can be easily accessed and victims of abuse predictably restrict their behavior) all of which leads to non-stop fear and a frightening helplessness to control their own personal lives (Corradi, Marcuello-Servós, Boira, & Weil, 2016; Weil, 2020). In other places, visits to domestic violence websites are skyrocketing and distress calls have increased up to 300% (Scotland, 2020).

In order to glimpse the possible presence of psychological stress in online searches pre- and post-pandemic related to femicidal violence during and following COVID-19 the following two search queries were used: *indicative male violence* and *intentional male violence*. *Indicative male violence* refers to signals of distress and fright communicated by a potential victim of domestic violence and *intentional male violence* relates to signals of a determination to coercively control a woman through increasingly violent, and possibly lethal, means. In this conceptual framework, *indicative male violence* relates to a victim heralding impending male violence whereas *intentional male violence* relates to a communication about the aim to harm a woman.

### **The trouble with “bubbles”**

The public health response to COVID-19 results in key drivers of both suicide and femicide: vulnerability (anxiety and uncertainty), isolation (depression and desperation), and forced proximity combining fear of violence and the capacity to coercively control and harm women (Standish, 2020b).

Three causes of grief accompany the pandemic: the disease itself and concomitant suffering, fear, and worry, including the loss of loved ones mourned in isolation; the increase in suicidality which will lead to a post-pandemic suicide plague (Vitelli, 2020), and a wave of escalating domestic violence during the pandemic what will result in predictable, and preventable femicide (Chen, 2020; Townsend, 2020; Vagianos, 2020). To communicate in advance for those unable to, this research seeks to give voice to those who will die by the virus, by the hand of an intimate or former intimate male partner and those who will choose to kill themselves in an act of deliberate self-annihilation.

### **Theoretical framework: Maslow’s hierarchy of human needs**

Maslow’s Hierarchy of Human needs (Figure 1) considers the human experience to be motivational, and related to the satisfaction of several stages of individual growth. Put simply, he considered the material needs of the body as the primary or foundational motivating factor in human behavior. Once satisfied, an individual could focus upon safety and security





**Figure 1.** Maslow's Hierarchy of Human Needs. Note. Source (adapted from McLeod, 2020, para 24).

and together, these two needs (shelter/warmth/food & safety/security) comprise our basic needs. At this point, a person could, having satisfied basic needs, focus upon psychological needs which include a sense of belongingness and aspects of esteem which include feeling worthy, and deserving of respect. For Maslow, the highest needs, those of personal fulfillment or self-actualization, are only possible when the first (4) tiers of the ladder have been adequately fulfilled (Maslow, 1954).

But what would it look like if an event occurred (or a series of events), that destabilized the pyramid, either from above or below? Could we see signs of this from help-seeking behavior and reportage? Is there a raw sample that could be drawn that gave us indicators of such destabilization? The following section will intimate that disruption in Maslow's Hierarchy regarding basic and psychological needs can be aligned with three destructive facets of contemporary life: COVID-19, suicide and femicide.<sup>2</sup>

### **Basic needs**

A precarity is a crisis and in this conceptual framework, *precarity* refers to employment and the outcome of widespread redundancies, furloughs and overall occupational instability due to the virus (Crayne, 2020). The experience of job precarity and job loss has significant household impact which can lead to feelings of anxiety, depression and fear and experiences of hardship, material deprivation and homelessness. *Insecurity* is a state of feeling at risk, unprotected or unsafe. The psychology of security refers to both aspects and includes the perception of being insulated from calamity as well as manifestations of material safety supported by employment. Maslow's hierarchy famously considered safety a basic human need, and one intrinsically tied to a person's physiological need for heat, sleep and sustenance (Maslow, 1943; McLeod, 2020).



Given the importance of meeting one's survival needs for food, water and warmth as well as one's security needs of stability, protection (from harm and the elements) and freedom from fear, both precarity and insecurity will be examined. The three *precarity* queries include: *laid off, can't pay bills, and lost my job*. The three *insecurity* queries include: *I don't have anywhere I can stay, I can't count on anyone, and I don't know what is going to happen*.

### **Psychological needs**

*Despondency* and *helplessness* relate to feeling psychological despair. In this conceptual framework, *despondency* relates to a range of depressive symptoms including sadness, negative rumination, and hopelessness whereas *helplessness* refers to feeling adrift, alone and desolate with nowhere to go and no one to turn to for assistance. The psychology of desperation includes the perception of a degraded future devoid of the crucial succor and support needed to overcome trauma. Maslow's hierarchy considered psychological belongingness as a key human need, that our social and emotional relationships stabilize and supplement our lives in a web of social bonds and reciprocity (Maslow, 1943; McLeod, 2020). In addition, the need to feel respected and worthy—esteemed—relates to our interpersonal status and the importance of being valued and welcomed by others. To lack esteem leaves deficient one's ability to expect care or help, from others. Given the importance of meeting one's relational and supportive needs for community, interdependence, and relationship both *despondency* and *helplessness* will be examined. The three *despondency* queries include: *I want to die, I don't want to go on living, and my life is over*. The three *helplessness* queries include: *why won't someone help us, no one will help us, and no one can help us*.

And finally, given the importance of safety, support, trust and positive intimate human bonding in domestic relationships *indicative male violence* and *intentional male violence* will be examined. The three *indicative male violence* queries include: *he beats me up all the time, help me, he won't leave and he will kill me*. The three *intentional male violence* queries include: *how to control your woman, how to hit a woman so no one knows, and I am going to kill her when she gets home*.

### **Methodology**

The use of online databanks during COVID-related international lockdowns, travel-bans, and diminishing resource funds has led many scholars to look to the Internet for timely and pertinent socially scientific data

(Halford, Lake, & Gould, 2020). A variety of open access platforms are available including a number of relevant web corpora such as News on the Web (NOW) the Coronavirus Corpus and Google. Such forms of analysis are accessible, replicable and revelatory as they permit the users, wherever they are located, to input terms, phrases and queries related to frequency and relevance. Although this research was conducted in the English Language as that is the first language of the author, similar multilingual and comparative analysis in other language groups is needed.

### **Method**

In this rapid research COVID-19 is analyzed via online intervention (content) analysis pre- and post-pandemic (Glass, Willson, & Gottman, 1975). This content analysis of Google search terms considers COVID-19 as a *critical event* that has resulted in an increase in psychological indicators of disruption of Maslow's basic and psychological needs related to suicidal and femicidal violence since 2019 (pre-pandemic). Summative and directive content analysis are forms of descriptive data inquiry that permit users to investigate frequency (summative) and specific (directive) linguistic search elements (Hsieh & Shannon, 2005). These forms of content analysis are useful in exploratory focused queries and can provide base line or raw illustrative data that can lead to future hypotheses (Krippendorff, 2004). Various fields utilize content analysis in increasingly digitized forms of research and while historically linguistic analysis of large data sets including newspapers or digital content has been the domain of communications and media scholars, as Bednarek and Carr aver (2020) linguistic text analysis or corpus linguistics can offer new and fertile forms of analysis in multiple scientific disciplines; "the sub-discipline of *corpus linguistics* uses specially developed software programs or interfaces to analyze patterns of language in electronic data collections" (p. 2). However, the flexibility of utilizing such methods has never been more needed or more available as less complex and more readily accessible online text analysis methods emerge. Health researchers Bednarek and Carr (2020) urge others to utilize web-based methods as the link between media, wellness and global circumstances capture social scientific regard.

As we are writing this, the world is in the midst of the COVID-19 pandemic, and many scholars are newly interested in how health information is communicated in the media. The tools and techniques we introduce in this article can be applied to the analysis of health news in general, whether related to the Coronavirus, unknown future pandemics, or ongoing health conditions such as diabetes, obesity, and cardiovascular disease... computer-assisted digital text analysis of the kind introduced here can be useful for a wide range of data, including other types of news and media (p. 2).

Corpus Linguistics typically uses concordances or word adjacency in its analysis offering the five words either directly antecedent or subsequent to a search query and have the ability to search all forms of a word (a.k.a. a *lemma*) (Boumans & Trilling, 2016). Certain, for-purchase, platforms of linguistic analysis including WordSmith, AntConc or Voyant Tools (for example) assist a researcher to use the software to derive either quantitative or qualitative outcomes (or both). However, there are also techniques utilizing existing search engines that are user friendly and low-tech. Halford, Lake, and Gould have recently used Google Search terms to locate “queries representative of help-seeking and general health concerns... [that] may have caused an increase in suicide risk factors” including *suicide*, *help-seeking*, *mental health* and *financial difficulty* (2020, p. 1). Their analysis was country specific (USA) and for approximately one year.

### **Google search analysis**

This research will build upon and modify Halford (2020) et al.’s search methodology to create a rapid and comparative analysis from March 1 to August 30 in 2019 and 2020 from US based Google searches. As the goal of this research is to identify specific (directive) phrases during a specific time frame a bespoke corpus linguistic technique (Bednarek & Carr, 2020) is used. But first, it is important to clarify issues of validity and reliability in this research context. Validity relates to whether one can “trust” the findings of an inquiry whereas reliability refers to the ability for others to duplicate and replicate the *same study* to find the *same answers*. There are a couple of issues that are key to online research using Google that bear mention here.

Firstly, Google Search bars locate different information based on a user’s location; a search in the UK yields different results than one used on a computer located in Nigeria. When looking for *country specific* search results from Google, VPN suffixes are added to the Google URL.<sup>3</sup> For example, a baseline Google URL is <http://www.google.com>. To change this to a country specific search (and in this analysis, a data-range country search) a suffix is added that includes a country code: for the US the following is added (*?gl=us*) to offer a US specific search of <https://www.google.com/?gl=us>, whereas, if one were searching Nigeria the country code of “ng” would be used to locate search results only entered in Nigeria (<https://www.google.com/?gl=ng>). If for Canada the URL is <https://www.google.com/?gl=ca>, and, for one more example, in New Zealand the URL is <https://www.google.com/?gl=nz>.<sup>4</sup>

Secondly, Google Search engines personalize results based on search history making the same search yield different results depending on both the

location of the search *and* past patterns of the user. To bypass personal history customization the following is added to the URL (&pws = 0) to turn off personalization. Combined, the county code and de-personalization suffix used in this exploratory study is <https://www.google.com/?gl=us&pws=0>.

### *Date-range capture*

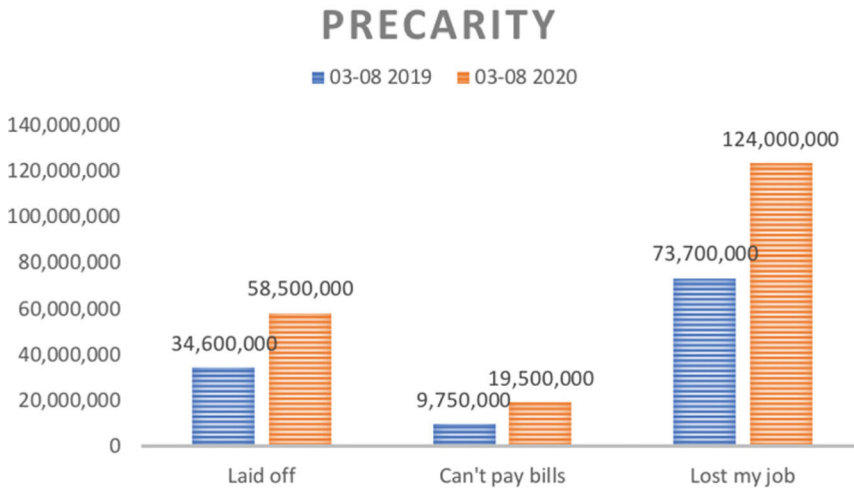
Once a neutral Google web address (without personalization or location default) is assured, to find the frequency of specific phrases pre- and post-pandemic in the United States a Google Date-Range Search (in the search bar) was used. To locate the amount of search results for a Google query one can set the date or date range in the advanced settings of one's browser or by using the following query suffix ("query" after:YEAR-MM-DD before:YEAR-MM-DD). In this tentative study the following six categories of investigation were utilized: *precarity*, *insecurity*, *despondency*, *helplessness*, *indicative male violence*, and *intentional male violence*. For example, to search for the second despondency query (see Table 1) in 2019 the following was entered into the Google search bar (I don't want to go on living after:2019-03-01 before:2019-08-01) and for 2020, the year is modified thusly (I don't want to go on living after:2020-03-01 before:2020-08-01).

### *Search terms*

The Google browser is a web search engine that handles roughly 70% of online queries. Search engine data for *help seeking* can offer readily available information to predict and monitor threats and harms so using the worlds' biggest browser can help identify trends (Young & Zhang, 2018). Text based queries can be specific terms (enclosed in quotation marks), phrases, or questions that permit users to access online information from local and global sources. In this study phrases were chosen to reflect the category of focus (e.g., *precarity* or *despondency*) and search frequency. For example, when searching the category of *precarity* (see Table 1) three queries that relate to employment in/stability were chosen. As the goal of this study was to look for trends in psychological stress searches online, queries that did not yield results or only limited results were discarded. In each search query, the goal was to limit the text to the shortest phrase length (and increase searchability) and to clearly represent the substance of the search category. What follows is the results of this Google trend search for psychological stresses related to the COVID-19, suicide and femicide.

## **Results**

Figure 2 presents the results, in the millions,<sup>5</sup> of each *precarity* Google search term. Search query "laid off" resulted in 58.5 million Google



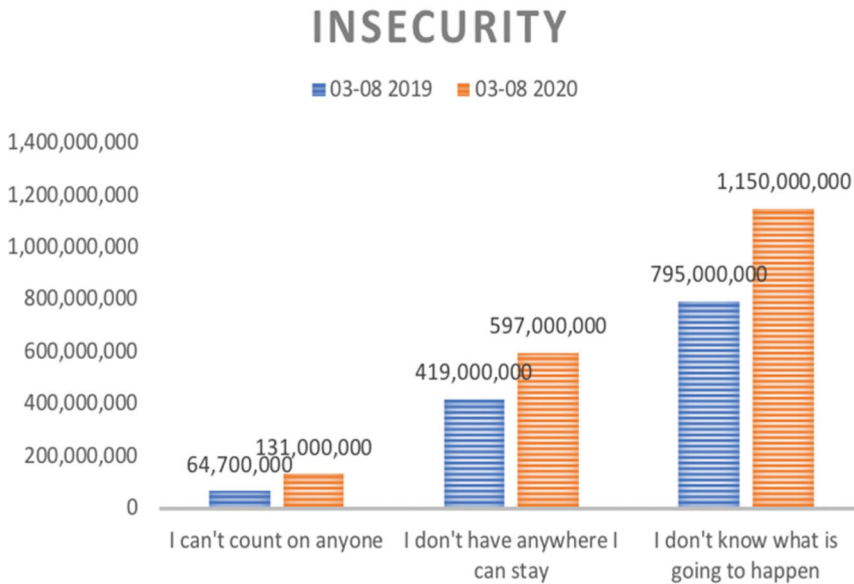
**Figure 2.** Precarity Google Search: *laid off, can't pay bills, and lost my job.*

searches post-pandemic which was an increase of 69% from 2019. Search query “can’t pay bills” resulted in 19.5 million Google searches post-pandemic which was an increase of 100% from 2019. Search query “lost my job” resulted in 124 million Google searches post-pandemic which was an increase of 68% from 2019.

Figure 3 presents the results, in the millions, of each *insecurity* Google search term. Search query “I can’t count on anyone” resulted in 131 million Google searches post-pandemic which was an increase of 102% from 2019. Search query “I don’t have anywhere I can stay” resulted in 597 million Google searches post-pandemic which was an increase of 42% from 2019. Search query “I don’t know what is going to happen” resulted in 1 billion and 150 million Google searches post-pandemic which was an increase of 45% from 2019.

Figure 4 presents the results, in the millions, of each *despondency* Google search term. Search query “I want to die” resulted in 668 million Google searches post-pandemic which was an increase of 59% from 2019. Search query “I don’t want to go on living” resulted in 236 million Google searches post-pandemic which was an increase of 36% from 2019. Search query “my life is over” resulted in 894 million Google searches post-pandemic which was an increase of 34% from 2019.

Figure 5 presents the results, in the millions, of each *helplessness* google search term. Search query “why won’t someone help us” resulted in 267 million Google searches post-pandemic which was an increase of 89% from 2019. Search query “no one will help us” resulted in 1 billion and 270 million Google searches post-pandemic which was an increase of 106% from 2019. Search query “no one can help us” resulted in 1 1 billion and 450



**Figure 3.** *Insecurity Google Search: I can't count on anyone, I don't have anywhere to go, and I don't know what is going to happen.*

million Google searches post-pandemic which was an increase of 70% from 2019.

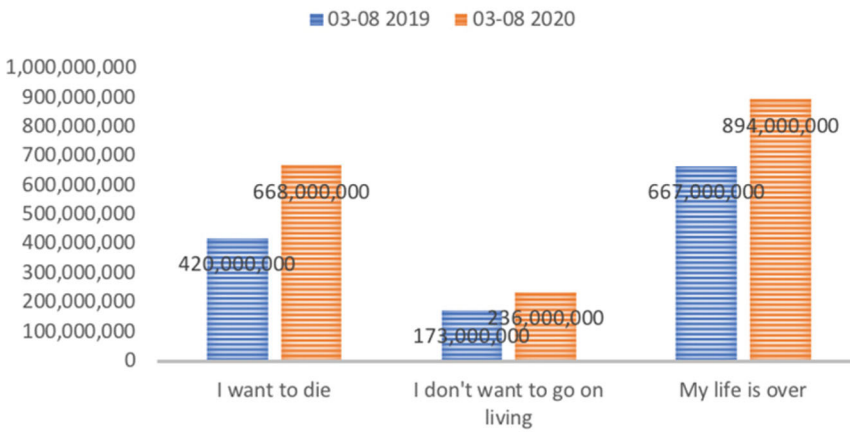
Figure 6 presents the results, in the millions, of each *intentional male violence* Google search term. Search query “how to control your woman” resulted in 165 million Google searches post-pandemic which was an increase of 67% from 2019. Search query “how to hit a woman so no one knows” resulted in 163 million Google searches post-pandemic which was an increase of 31% from 2019. Search query “I am going to kill her when she gets home” resulted in 178 million Google searches post-pandemic which was an increase of 39% from 2019.

Figure 7 presents the results, in the millions, of each *indicative male violence* Google search term. Search query “he will kill me” resulted in 107 million Google searches post-pandemic which was an increase of 84% from 2019. Search query “help me, he won't leave” resulted in 1 billion and 222 million Google searches post-pandemic which was an increase of 95% from 2019. Search query “he beats me up all the time” resulted in 320 million Google searches post-pandemic which was an increase of 36% from 2019.

## Discussion

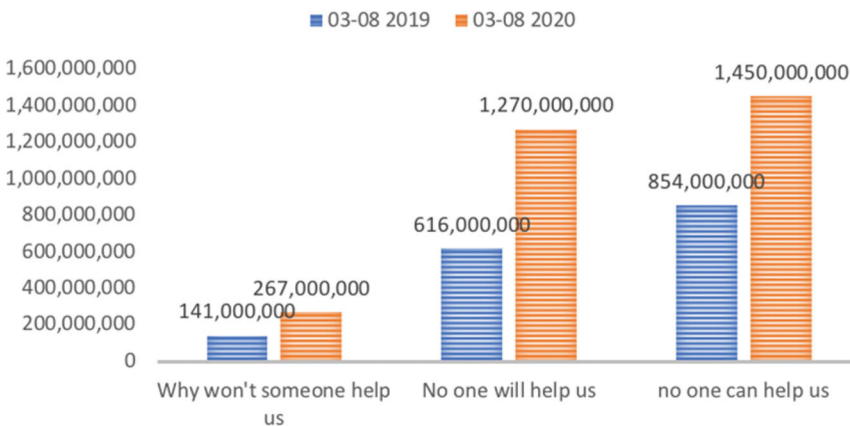
If results are what you *find* in a study, the discussion is what it *means*. While the results of this study show that 100% of all 18 search queries

## DESPONDENCY



**Figure 4.** *Despondency Google Search; I want to die, I don't want to go on living, and my life is over.*

## HELPLESSNESS

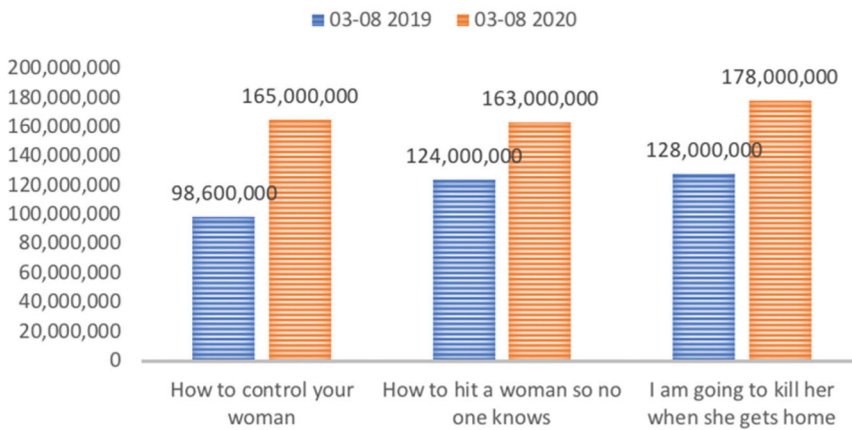


**Figure 5.** *Helplessness Google Search: why won't someone help us, no one will help us, and no one can help us.*

increased from 2019 to 2020, the cause of these increases is far from clear. To structure this discussion, I would like to examine and reflect upon the increases. Firstly, regarding Maslow's basic needs strata, it can be concluded that there have been hundreds of thousands of individual online browser searches that signal increases in *precarity* and *insecurity* related to employment loss and concerns about the stability of meeting basic needs in the near future. The two largest increases from these categories include *can't pay bills* (^100%- *precarity*), and *I can't count on anyone* (^102%-



## INTENTIONAL MALE VIOLENCE



**Figure 6.** Intentional Male Violence Search: how to control your woman, how to hit a woman so no one knows, and I am going to kill her when she gets home.

## INDICATIVE MALE VIOLENCE



**Figure 7.** Indicative Male Violence Google Search: he will kill me, help me, he won't leave, and he beats me up all the time.

*insecurity*). People are apparently not experiencing sufficient support and aid to meet their basic needs from family, community or the US government during the pandemic, and while there are many reasons for individual people to lose employment or the ability to help one another, the rapid and widespread economic shut downs have clearly led to increased financial insecurity and employment precarity—both necessary for people to meet their basic needs (Crayne, 2020).

Secondly, in search categories related to suicidal violence the greatest increases were *no one will help us* (^106%-*helplessness*) and *I want to die*

(<sup>^</sup>59%- *despondency*). These indicators of Maslow's psychological needs strata signal feelings of powerlessness, vulnerability and hopelessness from hundreds of thousands of Americans—all signs of psychological stress and mental unwellness that can result in ideation, suicide attempts and completed suicides. There are many forms of suicide and many reasons for individuals to complete suicide, but the interpersonal theory of suicide (Van Orden et al., 2010) posits that feelings of hopelessness—that you are a burden, a drain or a problem, and that you have no social belonging—you are adrift, alone and cannot rely on care or support from others, can lead to behaviors of self-harm including suicide (Reger et al., 2020; Standish, 2020a).

Finally, although this research has not connected online *utterances* of potential male violence against women to *actual* or experienced violence against specific women, the existence of thousands of individual search terms in the US for *how to hit a woman so no one knows* (<sup>^</sup>31%), *I am going to kill her when she gets home* (<sup>^</sup>39%), and *how to control your woman* (<sup>^</sup>67%), relate to violent coercive control of women (Johnson et al., 2019). Femicide, as a lethal form of violence that follows coercive forms of possessiveness and threats of harm from men increases in forced isolation (Laurent et al., 2013; Weil, 2020). Repeated abuse, help-seeking and lethal intention are seen in *he beats me up all the time* (<sup>^</sup>36%), *help me, he won't leave* (<sup>^</sup>95%), and *he will kill me* (<sup>^</sup>84%). And while a man refusing to leave a space does not necessarily mean that violence is forthcoming, stating repeated abuse and signaling femicide should be considered evidence of maltreatment and intention to harm. These queries gauge Maslow's basic and psychological needs strata—care, comfort, safety, security, social belonging and esteem—and signal potential threat, harm and violence.

This work seeks to elevate the relevance of correlated threats present in the global COVID-19 public health response. This study has sought to contribute an empirical research method—using online search tools—to readily and rapidly articulate emergent phenomena related to markers of psychological stress online. The findings of this research show an increase from 2019 to 2020 during the surveyed months and in some instances doubling. I am unaware of previous online research regarding COVID-19, suicide and femicide but hope this contributes to decreasing marginalized perceptions of both suicidal violence and femicidal violence due to virus impact and restrictions.

### **Limitations**

This study could be conceptualized as an interrupted time-series design since various assessments were taken of the commonality of select Google searches for several months before and after the COVID-19 pandemic.

Inferential testing and regression modeling can indeed be done with such designs (Jebb, Tay, Wang, & Huang, 2015) and the fact that this study does not feature such analyses could be viewed as a potential limitation.<sup>6</sup> However, historically, there has been a view that when interpreting trends from interrupted time-series designs, visual inspection of data can potentially hold as much merit as statistical tests particularly when the effects before and after the event are particularly large as they were in this investigation (Hartmann et al., 1980).

The urge for users to input particular search terms in Google cannot be aligned with any one motivation or circumstance. Why each term was entered, in what context and for what intention, we cannot definitively know. While the limits on this empirical research are significant—queries are restricted and show idiomatic, gender, age and cultural bias, they are linguistically limited to mainstream English, they are unable to correlate to specific suicidal or femicidal violence, they may relate to media or reports that utilize search terms unrelated to suicidal or femicidal violence, they may relate to content that comment upon or seek to support victims of such violence and finally, conclusions of direct correlation between suicide, femicide and Google searches is not possible due to the millions and hundreds of millions of individuals inputting these terms into the Google Search engine individually. Despite these sincere limitations, there is no doubt that google searches for these 18 queries within these six domains of inquiry have demonstrably increased in the last six months and based upon the past three years, will likely to continue to increase. Future mortality rates, compared with similar strains of research to the present study, may permit greater predictive value as will more geographically and temporal restricted investigations.

## Conclusions

On March 16, 2020 Dr Michael Ryan of the Executive Director of the WHO Emergencies Program said that what they had learned from the past Ebola outbreak was the necessity of speed:

You need to go after the virus, you need to act quickly... you need to engage with communities, you need to be coordinated... you need to be fast... have no regrets, you must be the first mover... if you need to be right before you move you will never win. Perfection is the enemy of the good when it comes to emergency management. Speed trumps perfection. The greatest error is not to move. The greatest error is to be paralyzed by the fear of failure... If you need to be right before you move, you will never win (2020, 0:39–1:26).

As Dr. Ryan intones: *the greatest error is not to move*, faced with yearly and global epidemics of suicide and femicide there can be no argument for inaction once we make visible the potential and preventable violence(s)

that may materialize from conditions surrounding, and responses to, the pandemic.

Suicidal violence can emerge from a deficiency in basic and psychological needs. Feelings of depression, anxiety, fear and grief that can arise from life circumstances such as relationship breakdown, trauma and loss can result in ideation, attempts and completed suicide. Physiological needs, safety needs, nourishment in intimate relationships and the need to be respected are all disrupted by violence against women which culminates, in its extreme, in femicidal violence (Maslow, 1943; McLeod, 2020; Weil, 2020). In instances of male violence perpetrated in forced confinement (the so-called bubbles) women are dispossessed of three aspects of human needs depriving the woman of the needed stability to manage daily living, achieve human potential and experience feelings of esteem, love and dignity.

While this rapid-response online study cannot explain the causes of each incidence of violence, it does demonstrate possible markers of psychological stress related to COVID-19 in terms of suicide and femicide. Hopefully, while our world continues to turn its attention to one plague, we can be mindful of whether or not our responses to the pandemic sow the seeds of more suffering.

## Notes

1. WHO dashboard figures from January 6, 2020.
2. Although Maslow considered self-actualization a key fulfillment need, the current inquiry will focus only upon the lower four tiers which comprise basic needs (1. Physiology and 2. safety), and psychological needs (3. belongingness/love and 4. esteem).
3. Search results in Google are rounded up or down to the nearest 500
4. <https://sites.google.com/site/tech4teachlearn/googleapps/google-country-codes>
5. Each one of these 'rounded' numbers results from a person inputting these search terms into the web engine. These figures are presented in full form because I did not want to lessen the visual impact of each individual entry into the search engine. Hundreds of millions of people are looking online for help and I wanted to reflect this COVID-19 reality.
6. Indeed, the potential of conducting inferential statistics in this paper was broached with Professor Jamin Halberstadt of the Society for Experimental Social Psychology and Thanaphat Thongpaibool of the University of Otago's Social Cognition lab and both indicated that my claim of an observable increase in Google search phrases was (visually) clear and while the descriptive evidence is supportive of my claim of an increase statistical difference testing was not warranted.

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