

**Covid-19: An Exposition,
with a Focus on Social Isolation in the Elderly (UK)**
(Draft)

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Abstract: This expository essay looks into the emergence of the novel coronavirus, its impact and severity and the measures that government bodies are taking to contain and mitigate it. The essay then focuses on the lockdown in the UK and looks into what isolation can mean to a vulnerable subgroup to the covid-19 pandemic: the elderly.

Introduction

It is an unprecedented reality for so many of us: our present, internet-generation society in lockdown due to a global pandemic unfolding before our very eyes, in our communities, with so many of us feeling and living the uncertainty. A pandemic is an epidemic (the extremely fast spread of a particular highly infectious disease to a populace in a short time) that crosses international boundaries; an example of the deadliest is the Spanish Flu (caused by a strain of the H1N1 virus) or the influenza pandemic (Jilani, et al., 2020) that affected the world from 1918-1920, infecting 500 million with a death toll of estimated 50 million. The current pandemic was reported as an outbreak of a “pneumonia of unknown cause” (World Health Organization, 2020) in the port city of Wuhan, the province of Hubei, China in December 2019; what was identified as a new virus named SARS-CoV-2 (also known as the coronavirus) causing the COVID-19 disease by the World Health Organization in the 7th of January 2020 then rapidly spread across the globe to more than 190 countries with 378,287 confirmed infected as of the 23rd of March 2020, with 16,497 deaths so far (CSSE, 2020) ; of the confirmed cases 100,958 has been reported to have recovered. The statistics of infection, fatalities and recoveries change every minute with governments worldwide releasing resources and actioning strategies to treat the afflicted, contain the virus and keep safe their populations, what with the covid-19 now being community-spread.

The Virus

The virus is a strain of the SARs-CoV (severe acute respiratory syndrome-related coronavirus), observed to be similar genetically to bat coronaviruses and is spread between people through respiratory droplets from sneezes and coughs, primarily affecting the lungs and the gastrointestinal organs. Symptoms include fever, dry cough, fatigue, anosmia (loss of smell), shortness of breath, muscle/joint pain, excessive sputum production, sore throat, headache, chills, nausea/vomiting, nasal congestion, diarrhea, haemoptysis and conjunctival congestion (WHO-China Joint Mission, 2020). The virus is more infectious than SARS and causes severe respiratory disease in 20% of the infected (Cookson, 2020) with a mortality rate of 3% or higher, with each new covid-19 case infecting 2.5 other people. Primary transmission is largely due to close physical contact without good barrier protection (masks, gloves); the virus is detectable up to 24 hours on cardboard and up to 3 days on plastic and steel surfaces if droplets fall on their surface (Cookson, 2020). Incubation period is between 2 to 14 days, averaging at 5 days. Particularly vulnerable are those with low immune defences, like the elderly whose immune systems have declined due to age

further exacerbated by underlying health conditions. To date, there is no known cure, with governments and institutions worldwide racing against the pandemic to create a vaccine which experts estimate to take between 12 to 18 months (Craven, 2020). Craven (2020) of the Regulatory Affairs Professional Society (RAPS) in the US reports that as of 21st March 2020, the US pharmaceutical company Moderna with its' vaccine candidate mRNA-1273 and the Chinese pharmaceutical company CanSino Biologics with its' vaccine candidate Ad5-nCoV are both listed as phase 1 vaccine candidates (first attempt at human trials between 20 to 80 subjects) with 33 other vaccine candidates from pharmaceutical companies and research institutions around the world in various phases of development and testing.

Impact & Response: Severity in Italy

Without a cure, the pandemic can only be thus contained and mitigated. Efforts and strategies to combat the epidemic per country differ, impacted by resources, social structure, culture and politics (Graham-Harrison, 2020). For Graham-Harrison (2020), Italy's exponential infection and death rate due to the virus is likely the most devastating in the world at the moment (as of 23rd of March 2020 - 63,928-plus cases with 6,077 deaths and counting), overtaking the reported statistics from China. Graham-Harrison (2020) argues that much of the blame is due to government inaction, with the Italian government reacting belatedly to the crisis, where testing, measures of containment and population movement control to stop the spread should have already been put in place as early as December 2019, when the outbreak was first declared in China. In contrast, Taiwan began to trace arrivals from Wuhan as soon as news of an 'infectious pneumonia' was declared in Wuhan in December 2019, so that by the time the virus was identified, Taiwan has enforced "social distancing, ramped-up testing and contact-tracing," (Graham-Harrison, 2020); Taiwan's fast reaction is argued to be the key for covid-19's low numbers in the country – 195 cases, with 2 fatalities.

Culture, population make-up and entrenched traditions impact the spread, argues Pietromarchi (2020); according to her, Italy's high coronavirus numbers is due to the country's 'social contact matrix' – a combination of an aging population, many with underlying issues and a highly social culture where family ties are much celebrated in intense interactions and very close ties between children, their parents and grandparents (Pietromarchi, 2020). As such, isolating the elderly with minimum contact to the outside world was culturally difficult – to care for the elderly generation in Italy means contact and to isolate goes against (Alesina & Giuliano, 2010) the very essence of what it means to be 'Italian'. Graham-Harrison (2020) proposes that the Italian case will be mirrored soon enough in countries that have had a delayed reaction much like Italy – the UK,

France and Spain included. Alesina & Giuliano (2010) in a Harvard economics paper insist that while the ties in families in the US and the UK are strong, they are not as close or seen as the most important social unit when compared to the Latin-culture countries of Spain, Italy and Portugal; if the 'social contact matrix' with family and care for the elderly is then to be the reason for rapid covid-19 spread especially among the elderly subgroup, then for the UK at least, containment can still mitigate the spread of the virus, especially among the elderly and the vulnerable (those with low immune systems and underlying health conditions) due to the fact that as a society, social interactions among the elderly and between the elderly and their families is not as intense or culturally entrenched as in the Latin-European countries (Alesina & Giuliano, 2010) (Mayberry, et al., 2020).

Isolation UK: "You must stay at home"

In a bid to contain covid-19 and protect the population, on the 23rd of March, 2020, the UK's Prime Minister Boris Johnson ordered a 3-week lockdown (Stewart, et al., 2020) of the country. The virus is tracked to have arrived in the UK on the 31st of January 2020 with the first reported case in York, England being 2 members of a family of Chinese nationals, one of whom was a student in the University of York (Sky News, 2020). Since then the virus has appeared/spread across the country with a confirmed 6,650 cases by the 23rd of March 2020, with 335 dead (as of this writing). The British Police have been ordered to strictly enforce the rules with social distancing at the center – ban on a gathering of more than 2 people, exercise alone outside the home only once a day, people only allowed outside to buy food or medication, people must keep a 6ft distance apart, travel to work if only absolutely necessary with the underlying condition that everyone must work from and stay at home. Except for grocery stores and pharmacies, all non-essential shops are closed, including playgrounds, places of worship and libraries. The country has also put in effect the planned isolation of over 1.4 million individuals deemed to be the most vulnerable to the virus (i.e. people undergoing treatment for cancer); said individuals have, as of 21st March 2020 received notice from the government that they will be put in a period of isolation for 12 weeks (Shaw, 2020) and must keep to social distancing rules and stay at home. The 12 weeks timeline has been set against the position that if the UK follows strict containment measures, the conditions by then will ease (Shaw, 2020) which could allow for a relaxing of the isolation rules for the most vulnerable. With the country's National Health Service (NHS) challenged to cope with the pandemic, further exacerbated by the need to cover previous committed care for both outpatient and those admitted for other diseases, enforcement of the lockdown measures by the police is seen by the Johnson-led government as

vital to stop the spread and to save lives. For so many thus, especially those who live alone, this means isolation.

"We are a social species.

Our social networks (families, tribes, communities, etc.)

enabled us to survive and thrive."

– Clifford Singer (2018)

If the history of our species is traced to our anthropological ancestors, it has been traced that the earliest of our primate genetic ancestors banded together as "loose groups of both sexes" (Pennisi, 2011), not in pairs, but in what can be seen as the makings of a social community around 52 million years ago when apes split off from their prosimian relatives. These social structures were meant for survival in a harsh world, when the primate groups hunted together and protected each other hunting during the day and resting at night. This social organization is evident still in our modern societies, where as individuals we are part of a population subject to a political authority and cultural hegemony, where we have our individual identity in terms of role and function as part of formal and informal organizations, of primary (family, close friendships), secondary (schools, workplaces) or referential groups (hobby and recreational organizations, etc.), organized to protect our individual as well as the larger population's interests with the common goal of living in a safe environment where we can hope to live, develop and thrive. The 3 primary sociological perspectives (Mooney, et al., 2007) – functionalist perspective (where society is seen as a system of working parts and where a person is has a function in said system), conflict perspective (where society is seen as a site of competition for power and resources between individuals and groups) and symbolic interactionist perspective (where human beings are shaped by their interaction with others) – all have a baseline: that human beings interact to define who they are, to develop into what they have become, and to find their roles and place in society. Thus, to be confined, without any social interaction is not something many people would welcome (Robinson, 2019) as it takes away a fundamental aspect of being a social agent – interaction. It is when we interact with others that we make meaning about ourselves, about others and about our world. We affect others just as we affect them and together we make up society.

What is Social Isolation?

Social isolation is that condition of total or near-total absence of contact between an individual and society. It is important to note that isolation is not equivalent to loneliness – the

latter being a possible response to isolation with loneliness deemed as that complex and unpleasant feeling of being empty, alone and unwanted, craving human contact but barred or deterred by varied reasons from doing so (Cherry, 2020). But while isolation does not necessarily result to loneliness, with a number of people preferring 'aleness' as a way of life with minimal social contact (Singer, 2018), being socially disconnected especially in perceived isolation (subjective experience of the absence of companionship and support) will have a large effect on health and mortality risk. Singer (2018) claims that there is a wealth of studies that have tackled the connection between one's health in relation to social engagement, majority of which conclude that isolation and loneliness impact health status making them unambiguous risk factors for ill health and mortality. An example of this is the work of Pantel, Rehkopf, Jutte, Syme, Balmes & Adler (2013) which looked into social isolation as a predictor of mortality rate in the US. Their study used a nationally representative sample and compared the predictive ability of social isolation to that of traditional clinical risk factors to predict mortality rate. They (Pantell, et al., 2013) concluded that:

*"The strength of social isolation as a predictor
of mortality is similar to that of well-documented clinical risk factors.
Our results suggest the importance of assessing patients'
level of social isolation."*

For Pantell, et. al. (2013), an individual's social integration and support, especially in the case of patients who are socially isolated and lonely is a risk factor for mortality. Singer (2018) further emphasised a pattern in socially isolated males who are not married, have fewer than 6 friends or relatives, and no membership in any social or religious organizations – they have a 90% increased risk of cardiovascular death, and are also at risk of death from suicide or accidents. This position is also held by the UK's Mental Health Foundation (2019) who reported that "men accounted for three-quarters of UK deaths by suicide in 2018," with isolation and lack of social support being a key relationship risk factor.

Isolation and the Elderly

The UK lockdown is meant to protect the population, to contain the pandemic and mitigate its spread. Isolation, the "stay at home" policy is therefore arguably a manifestation of social support from the government, a Kantian deontology where the maxim is protection of all, but most especially the vulnerable. Among the elderly, the move is seen as expected, with the promise of government support for delivery of food and supplies welcome (Booth, 2020); one elderly

compared it to her WW2 experience where the limitations of the lockdown in comparison to the former amounts to 'nothing'. Some over 70's however are reacting differently (Bulman, 2020) with one declaring "I'll go bonkers" and another being of the opinion that it is not worth it and unenforceable. Another elderly interviewed by Bulman (2020) for his reaction to the lockdown declared that many elderly in the UK are already quite isolated so that the lockdown will destroy their meagre social network which often is their local pub or the shops they go to. Age UK (2020), the British Charity dedicated to supporting and advocating for the elderly has launched a campaign to help the elderly in this period of social distancing, encouraging younger generations to keep in touch on the phone with older relatives and friends, helping to pick up shopping for them, sending them cards and gifts to keep their spirits up and to encourage the elderly and their relatives and friends to call their numbers for advice or if they feel isolated or lonely (Age UK, 2020) and in light of covid-19, scared or anxious. While a number of British elderly live in nursing homes and retirement homes with round the care facilities, a good number still live on their own independently. Of these, a number are part of the 1.4 million (Shaw, 2020) put in the enforced 12-weeks lockdown for their protection. According to Novotney (2019), social isolation among the elderly without social support, defined by loneliness, exacerbated by functional limitations (such as mobility due to illness or old age) and low family support can easily lead the elderly to develop unhealthy habits. The loneliness factor also heightens stress levels, impacts sleep, and augments states of depression or anxiety (Novotney, 2019) with the physiological effect of the following in the leukocytes (the white blood cells essential in the immune system's infection response), "an increased expression of genes involved in inflammation and a decreased expression of genes involved in antiviral responses." Novotney (2019) cites the work of Prof. Steven Cole of UCLA whose 2015 research on loneliness and health showed that loneliness can cause a long-term 'fight or flight' stress signalling, negatively impacting immune system functioning. Cole's work (Novotney, 2019) indicates that isolated and lonely elderly people have less immunity and are far more susceptible to inflammation and infection than those who are not isolated and lonely.

Conclusion & Recommendation

If we look into the actions of the Johnson-led government from a functionalist perspective, we can say that they are doing their utmost function – the lockdown is meant to protect the country and its population, especially the most vulnerable. We can therefore conclude that the lockdown and all it entails – social isolation, social distancing - is meant to contain and mitigate the spread of the highly infectious and as yet vaccine-less covid-19 pandemic so that the numbers of infected and subsequent mortality would not climb as high as in Italy and China, until such a point

when the infection is controlled and/or a vaccine has been fully developed, ready for deployment. However, social isolation especially in the elderly brings with it a wealth of psychological and medical risks. It can lead to loneliness and depression while physiologically, it can cause the lowering of the body's ability to fight infection and inflammation due to a change in the white blood cells brought on by chemical changes due to the body being subjected to the stress and anxiety because of loneliness and that long term state of fight or flight. This is especially exacerbated in the elderly who are already feeling disconnected and living on their own, without support from relatives or without any social connection to others (forms of friendship, involvement in regular social interaction). An added risk factor is the elderly's physical limitations, impacting mobility and the ability to do things on their own (Novotney, 2019) (Shaw, 2020) (Robinson, 2019). Among the elderly, especially among socially isolated males, there is a high possibility of suicide, where social isolation and loneliness is a risk factor (Singer, 2018).

What then can be done to combat the adverse effects of social isolation especially in the elderly at this time of covid-19 lockdown? Interventions at this period are limited by social distancing, a move which is also meant to protect the elderly. If we keep in mind that we now live in the age of Smartphones where digital is a social fact (Marres, 2017), it is possible, especially for experts and specialists to innovate varied ways in keeping connected with the isolated elderly, to provide that social connectedness, especially to monitor how they are – their well-being, their needs, their health. This is of course in the assumption that the elderly in self-isolation is able to use technology to connect to the digital world – using the internet and a Smartphone to make video calls or to answer one, listen to and apply instruction in the use of certain technologies related to the use of the Smartphone, the computer and other digital technologies that can help in keeping them socially connected but in keeping with social distancing for their protection. In the absence of the use of the digital, there is always the analog phone, a technology that the elderly are very familiar with. Through this, communication from them and to them can take place, to monitor their well-being and their needs. Coupled with government measures aimed to deliver essential services to them (groceries, visits from doctors and specialists, transporting the elderly with underlying conditions to medical appointments in a safe manner to protect them from possible covid-19 infection), it is possible to mitigate the adverse effects of loneliness in perceived social isolation due to the government enforced lockdown. Intervention will likely be context-driven as needs, abilities and situation of the elderly, especially those in 12-weeks enforced lockdown differ individually. As long as the government and society is proactive to put such interventions in place as soon as possible, combating the adverse effects in the isolated elderly due to covid-19 is possible.

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