

Critical Factors Affecting the Impact of COVID-19 Within Nursing Homes

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Abstract

Context: Ageism, socioeconomic disparities, Medicare dependency, Medicaid inefficiency, and poor business practices have been longstanding critical factors affecting the operations of nursing home facilities and how they handle the palliative care of their elderly patients.

Objective: To examine the impact and ramifications of COVID-19 within various nursing home settings and how they interact with the multiple factors previously affecting long term care within nursing homes.

Methods: A qualitative literature review of various articles and research papers examining the impacts of COVID-19 throughout multiple nursing home facilities using various search engines, such as Google Scholar and the University of South Florida Library Database.

Findings: Based on the compilation of reviewed articles, the majority of the authors agreed that COVID-19 exacerbated the various issues already affecting nursing homes, which directly contributed to nursing homes being one of the most devastated social sectors by the global pandemic and the high fatality rates within these facilities.

Limitations: No personal research was able to be conducted and the data was not analyzed through quantitative/statistical means.

Implications: The findings indicate a substantial need for nursing home care reform that is adequately prepared to mitigate the effects of a global pandemic. Further research is needed on each of the critical factors previously affecting nursing home care in order to develop the most effective solutions to address these factors.

Keywords: COVID-19; Nursing homes; Ageism; Medicare; Medicaid; Socioeconomic disparities

Introduction

Background

Before the pandemic, senior citizens were regarded in different manners based on multiple geo cultural and political factors. Seniors are seen by some as respected members of society worthy of proper care and attention, such as providing effective public health and disability accommodations for the senior population. However, some societal sectors have negative biases towards the elderly population, such as viewing them as senile, helpless, and frail members of society that deserve less priority in proper medical care and social services. These negative biases often correlate with negative behaviors that can lead to elderly individuals becoming victims of financial exploitation, physical abuse, and neglect in various ways. Subsequently, the geriatric care of nursing homes is also often influenced by these societal biases, whether they are positive or negative. These societal biases are a small component of many of the other factors that affect the functioning and operation of nursing homes.

Nursing homes are usually held to a high standard of rigorous care since the care exhibited affects individuals with a higher prevalence of comorbidities. Any faults within the systematic care of these institutions can have serious repercussions, such as a higher prevalence of illness and fatalities. Because of this, the staff of nursing homes always strive to provide

consistent high-quality care and mitigate any possible factors that presented a serious risk to the patients. However, like many other sectors of society, nursing homes were severely affected by the COVID-19 pandemic, which brought to light many unperceived factors previously present within the nursing home system. The scale of the COVID-19 pandemic magnified many of these factors that affected the nursing home system through numerous means. Some of these factors that previously affected nursing home care include ageism, socioeconomic class, dependency on the Medicare program, inefficiency of the Medicaid program, poor business practices/management, and faulty legislation [1-20].

Factors

Ageism is a prevalent bias within many societies that correlates with many of the negative behaviors exhibited towards the elderly. Ageism incorporates a set of biases and behaviors that assume that a person's worth is based on their youth, and the older a person becomes, the less valuable to society they become. Ageism plays a role in many aspects of society. Based on geo cultural beliefs present throughout different regions, elderly individuals can have difficulties locating opportunities to work and finding accommodations for their unique needs. These issues can translate far beyond just minor inconveniences and translate into systematic institutions like nursing homes. For example, if a rigorous hiring methodology for geriatric caretakers is neglected during recruitment for nursing home staff, caretakers and staff who share these ageist beliefs can be hired as long-term care takers for elderly in nursing homes. The insufficient mitigation of these biases can quickly degrade the quality of care received.

Socioeconomic class is an increasingly pervasive factor within multiple spheres of society, including the nursing home systems. Nursing homes attempt to reduce the disparities caused by socioeconomic status. Prior to the pandemic, there was a stark correlation between the quality of care received and the socioeconomic region that a nursing home was in. The better care often correlated with regions that are higher in socioeconomic status. Patients within these higher socioeconomic classes received better palliative care and overall better services that increased their quality of life. In contrast, patients that were of lower socioeconomic class did not receive sufficient care that met the extent of their medical and emotional needs.

Medicare mainly funds short term care, which does not fit with the long-term care model that nursing homes focus on. However, Medicare covers skilled services during a period of 100 days after patients are discharged from hospitals, and the funds provided by Medicare for these services greatly profit the nursing homes. On the other hand, Medicaid provides funds for patient fees over a longer period of time, but it is significantly less funding than what is acquired through Medicare. This creates a dilemma within nursing homes systems in which Medicare residents are sometimes preferred over Medicaid residents, which motivates nursing homes to recommend some Medicaid patients to be sent to the hospital in order to return as higher paying Medicare patients [21-30].

Nursing homes can be both private and federally funded. When nursing homes are not federally funded and operate in the private sector as a business, poor business practices can often lead to severe implications, such as lack of resources and severely inadequate care. Across the United States of America, a majority of nursing homes operate and conduct related party transactions, which involve dealings that outsource a broad range of products and services to businesses in which they own or control a financial stake. These tactics are formed as an avenue to minimize taxes paid by these businesses. As a result, these actions shift the focus from providing the best care to elderly, to a business that finds ways to be profitable and avoid an exorbitant amount of taxes.

Methods

This article extrapolated information from a multitude of peer reviewed sources acquired through the University of South Florida Library Database and Google Scholar. The main objective of the research was to determine how COVID-19 aggravated many of the previous flaws within the nursing home system, which guided the selection of the sources acquired in these databases. The selected references were narrowed down by finding commonalities between the factors that affected nursing home care discussed in each article and examining if they had any correlation with the impact of COVID-19 within the nursing home system. We chose to mainly investigate cases and factors that affected the nursing systems within the United States, but some international articles and research were taken into consideration as well. Through this method of narrowing down sources, we were able to determine that the most prevalent issues discussed across the references were ageism, socioeconomic status, Medicare/Medicaid, and poor business practices. The references that were selected had a plethora of different methods and aims within their studies, which provided the necessary variety to see if the conclusions found in this paper could be contextualized within different research methods and settings.

Limitations

However, some of the limitations of these methods were that there was no statistical analysis of the results found within the references, which could have provided more evidence and conclusions towards the factors that were examined. Another limitation was that personal interviews of nursing home staff and patients were not able to be conducted, which could have added another layer of insight toward how these factors affected the people working within the nursing home system on a personal level.

Analysis

Ageism: The prevalence of ageism before the pandemic directly affected how the management of COVID-19 was handled within various nursing home settings. As discussed previously, the multiple biases held by the general public towards the older generation can influence how older patients are handled and treated within the nursing home system. This is shown by how various health care providers and the general public have backed

the use of triaging, which stipulates that older people are given the lowest priority for life-saving treatment aside from other factors. Prior to the United States, China and Italy, which faced overcapacity and supply shortages in hospitals, saw nursing home facilities and other services that aided the elderly be low priority in the fight against COVID-19 [28]. Besides these responses to early treatment of nursing home patients, the negative biases that correlate with ageism can affect the psychological and physiological health of these patients, which negatively affected the overall health of these patients even before the pandemic. This inadequate personal treatment of patients directly translated to the rates of infection and mortality, in which older adults who were influenced by these negative effects of ageism were severely more affected by the COVID-19 pandemic [28].

Moreover, the introduction of these ageist attitudes shifts the general responsibility of the COVID-19 pandemic to be an issue that only the older generation has to worry about, which leads to feelings of isolation and abandonment increasing within nursing home patients. Repetition of this behavior that continues the ongoing negative age stereotypes has become prominent, rarely unchecked, and extremely damaging to the health and stability of elderly in nursing homes across the world [11]. This along with irresponsible media coverage encourages younger adults, some of which work within nursing homes settings, to perceive this pandemic as a joke, which gives these young adults a sense of invulnerability to the virus. A prime example of this misconception was that despite calls from public health authorities to refrain from social events during Spring Break in Miami, Florida or St. Patrick's Day in Kingston, Ontario, there were multiple videos of university-age students participating in mass gatherings for Spring Break [12]. These irresponsible actions not only directly harm these young adults by increasing the spread of this virus and elongating the process of fighting COVID-19: they also indirectly contribute to the problems that elderly individuals go through within nursing homes. The palliative care required by many of the nursing home patients during the pandemic became increasingly more tenuous and volatile during the spread of COVID-19, which was propagated more easily due to the reckless actions of younger and middle-aged members of society. Because of the difficulties in palliative care increasing greatly during the pandemic, the older adult population is left much more vulnerable to higher rates of infection and death due to COVID-19. This disproportionate increase in elderly mortality and infection rates from COVID-19 falsely reinforces the already incorrect and harmful ageism ideals of the frailty and worthlessness of the older population that are frequently propagated by both the media and public discourse.

Furthermore, ageistic ideals not only indirectly permeate through established institutions, like nursing home facilities, and negatively impact elderly physical health by exacerbating issues like COVID-19, but they also directly influence the elderly's mental health and their own sense of self-worth. For example, in the midst of the pandemic, it has been suggested that older people should completely isolate themselves, while younger adults can usually get away with just following basic social distancing procedures. As

a result, many older adults in homes with continuing rigid social isolation have increased depression, anxiety, worsening dementia, and inability to survive, according to long-term care insiders. A healthcare provider who visits about 160 people in nursing homes said in an interview that during her visits to their rooms, some of the patients had become much less social.

Many of the patients slept through the conversations with their providers, which was a variation that was associated with the loss of stimulation previously obtained from group activities and visitors [1]. The more disabilities and illnesses that an older person experiences, the more deterioration they face in their day-to-day functioning. This in turn makes them more vulnerable to the negative associations of ageism, which makes them more difficult to treat within nursing home settings. Especially due to the onset of social isolation caused by the pandemic, older adults with dementia, especially those in nursing homes, are at an increased risk of deteriorating psychological symptoms and serious behavioral disruptions. Once afflicted, elderly individuals with dementia are more prone to experience serious virus-related effects, including death compared to healthy individuals [31-48]. Compounded by the ageistic beliefs and the exacerbated effects of the COVID-19 pandemic, elderly individuals with these severe mental health conditions suffered the brunt of the catastrophic decline in healthcare, which was one of the major reasons that nursing homes were severely impacted by the effects of COVID-19.

Socioeconomic status: Socioeconomic status is frequently interconnected with the racial background of many nursing home residents. As a result, an elderly's socioeconomic status within nursing homes can determine whether they receive optimal quality of care compared to their peers. There exists reasonable evidence that these inequalities occur throughout nursing homes, with racial/ethnic minority patients residing in facilities facing increased care deficiencies, less financial and health services, and greater shortages of nursing staff [23]. Because of this, many minority patients faced extreme difficulties within the nursing home setting before the COVID-19 pandemic started. Without these proper procedures in place before the pandemic, it paved the way for nursing home residents that were from minority racial and ethnic groups to be one of the most affected social groups during the pandemic. Research has shown that residents of color are found to be at a higher risk of COVID-19 infection and mortality due to being frequently consolidated in lower-quality nursing homes, which leads to many of these minority racial/ethnic groups experiencing poorer life quality [37]. The paucity of adequate services available to nursing home residents of lower socioeconomic class, many of which are ethnic and racial minorities, compounded with the devastating effects of COVID-19 to make the nursing home patients the most vulnerable demographic to the pandemic throughout the world.

The repercussions of this are clear: multiple studies showed the devastating impacts of COVID-19 on lower socioeconomic classes that correlated with minority ethnic and racial groups. A study sample showed that COVID-19 mortality counts were

3.3 times higher in nursing homes with high prevalence of non-white residents than in nursing homes mostly composed of white residents. In counties where nursing homes had a greater number of non-White residents, these disparities were linked to factors such as increased nursing home size and greater amounts of infection burden [15]. This disparity is aided by socioeconomic factors that put a barrier between adequate care and the financial stability that an elder or an elder's guardian possess. Additionally, COVID-19 deaths per occupied bed were at least twice as high in nursing homes containing any number of Black residents compared to nursing homes without any black residents. Nursing homes with 50% or more Black residents were located in counties with the largest amount of COVID-19 infection/mortality rates, albeit nursing homes with no Black residents were located in counties with the smallest COVID-19 infection/mortality rates [43]. These statistics examined are especially significant because they further highlight the disparity in socioeconomic factors based on race.

These factors show a correlation between elderly minority and low socioeconomic status, which results in this group of nursing home patients to often be the most seriously affected when it comes to proper care and resources in regard to COVID-19 treatments and beyond. Likewise, nursing homes that were mostly composed of minority patients had 61% more COVID-19 deaths than nursing homes with no minorities once interstate disparities, facility-level resident characteristics, resource availability, and organizational characteristics were accounted for Weech-Maldonado et al. [47]. Evidently, this shows how COVID-19 further aggravated many of the deficits previously associated with belonging to a lower socioeconomic class, which worsened the devastating impact of COVID-19 within multiple nursing homes systems. As a result, nursing home patients that belonged to ethnic and racial minorities with lower socioeconomic status suffered through more severe repercussions of the COVID-19 pandemic, which directly influenced nursing homes becoming one of the epicenters of the pandemic.

Medicare and medicaid

Medicare serves as one of the top priorities for nursing homes in regard to funding, while Medicaid is not as lucrative and does not provide nearly as much income for nursing homes. Prior to the COVID-19 pandemic, nursing homes had the ability to accept as many Medicare beneficiaries as possible in order to receive the higher paying funding granted by Medicare. However, since the beginning of the pandemic, a significantly smaller number of nursing homes are presently admitting short short-term Medicare beneficiaries, even though the number of hospitalized patients medically stable for post-acute rehabilitative care has steadily been increasing during the pandemic. However, many nursing homes do not want to admit these patients due to being unable to treat them in a safe manner, which is causing many nursing homes to deal with bankruptcy due to less revenue being generated from Medicare patients in the face of rising costs due to patients dealing with COVID-19 [17]. This issue provided a dilemma for nursing home institutions that operated on for profit bases. The 3-day law, which allows a Medicare beneficiary to spend three days in the

hospital in order to qualify for the skilled nursing facility advantage, has now been relaxed by Medicare. This will allow the least-ill patients to be transferred more quickly [18]. Neglecting the quality of care and safety of the residents, some nursing homes accepted some of these Medicare beneficiaries at an attempt to keep the business afloat. The 3-day law exacerbated the effects that some of these nursing home institutions were already going through due to rapidly increasing infection rates and shortage of supplies. By accepting these Medicare beneficiaries, nursing homes concede the ability to properly social distance and keep all their elderly in a safe space that minimizes viral transmission. However, due to business interests, many nursing home institutions expanded beyond optimal regulations and provided unethical care in order to increase the revenue of the business.

Granted, some sources state that the higher probabilities of COVID-19 cases were considerably linked to higher percentage of African American residents, facility size, urban area, non-chain status, and state, while prior infection breaches, Medicaid dependence, and ownership were not found to be substantially correlated with greater amounts of COVID-19 cases [3]. Conversely, many other studies debate this information and suggest that Medicaid dependence does indeed play a factor in how the nursing homes handled and were affected by the COVID-19-crisis. For instance, nursing home institutions that were for profit and had a larger pool of Medicaid insured residents reported greater numbers of COVID-19 cases compared to other nursing institutions [8]. The COVID-19 pandemic also forced several nursing homes to substitute ill nursing home workers with per diem or agency staff at exorbitant rates, with institutions that rely heavily on Medicaid reimbursement bearing the brunt of the burden [19]. Even though Medicaid supplies funding over a longer period of time, the funding supplied by Medicaid is usually insufficient for covering many of the operating costs of nursing home institutions. As a result, many facilities that were dependent on Medicaid were some of the most impacted nursing homes due to the lack of financial power needed to properly address the previous costs of these facilities along with many of the new issues presented with the COVID-19 pandemic, as shown by the previously discussed research. In addition, research has shown that Medicaid-reliant nursing homes host a comparatively higher number of Black patients and are correlated with poorer quality of care [19]. This correlates with the previous points discussed in the socioeconomic section and show how these factors cannot be examined purely as isolated factors interacting with the effects of the COVID-19 pandemic, but rather they must be viewed through a holistic viewpoint in order to properly assess the full impact that COVID-19 had on these factors and how it relates to the consequences faced in the nursing homes systems.

Poor business practices

Facing a global worldwide pandemic, preparation is of the utmost importance in order to minimize casualties and minimize spread. As a result, a strong foundation in proper business management and practice can be a vital component towards fighting COVID-19. Unfortunately, the rapid spread of COVID-19

demonstrated how unprepared multiple institutions in different sectors were. This was especially evident in nursing home facilities. Due to bad business practices, nursing home facilities fatally suffered during the pandemic resulting in various nursing homes becoming the epicenter of the rapidly spreading virus. Across the United States, 681 nursing homes lacked both N95 and surgical face masks, while 1,266 nursing homes lacked one of the two masks [23]. This illustrates the severe lack of resources needed to properly combat the pandemic that many of these nursing homes were not properly equipped to deal with. This was largely due to mismanagement of the nursing home finances and operations by the upper management of these facilities, which compounded devastating effects of the pandemic throughout nursing home systems.

Furthermore, it is important that nursing home facilities provide proper indoor air quality due to the airborne nature of the COVID-19 virus. A recent study that dissects the ventilation and the indoor air quality of nursing care homes found that breathlessness and coughing were linked to elevated concentrations of indoor particulate matter in the main common rooms of these facilities. In addition, throughout the previous year, elevated indoor concentrations of ultrafine particles were also present, which was found to be heavily linked with increased wheezing within the nursing home populations. Furthermore, the study further examined indoor formaldehyde, PM0.1, and NO₂ concentrations within these facilities, which were linked to a reduction in lung function and the development of chronic obstructive pulmonary disease. These associations were particularly strong in nursing homes with inadequate ventilation and in residents over the age of 80, despite concentrations of indoor air contaminants that did not surpass current international guidelines. Additionally, the study concluded that only about 19% of nursing homes that were studied showed proper indoor air circulation and proper ventilation to reach proper non harmful carbon dioxide concentrations (Reddy et al., 2020). The lack of proper indoor air quality combined with a pandemic caused by an airborne virus can elongate the process of establishing effective infection control methods to curb the impact of the pandemic. The implementation of such measures would have ensured a more adequate response to the pandemic and greatly reduced the infection and mortality rates within the nursing home system. Instead, the lack of preparedness and poor practice of vital operations further prolonged the extreme effects of the COVID-19 pandemic. Thus, the longer the pandemic continues because of rapidly increasing infection rates, the more shortages in essential and quality of life resources occur, which leads to insufficient care and medical resources within nursing homes to properly combat COVID-19.

In addition, governmental institutions have been making recommendations to nursing home institutions to better their operations, but they have largely gone unnoticed. Federal and state inspectors found three urgent threat conditions at the Life Care Center nursing home in Kirkland, Washington, which was the epicenter of the US epidemic. These conditions were identified

as possible threats that put nursing home patients in immediate danger. These conditions led to nursing homes failing in rapidly identifying infected residents in order to treat them properly [1]. This shows the common thread seen within many of the literature examined in this paper: that if proper precautions were taken against these issues and if these issues were rapidly addressed, it could have prevented many of the severe consequences that the COVID-19 pandemic had on nursing home systems.

Conclusion

The plethora of research highlighted those various issues affecting nursing homes before the pandemic were magnified and played a key role in the disastrous impact that COVID-19 had on the nursing home system. Our paper found that if these previously identified issues were properly addressed before the pandemic, it could have greatly reduced the death tolls and infection rates of COVID-19 throughout nursing home facilities. Out of all the issues discussed in this paper we found ageism to have the greatest amount of evidence regarding its impact over the effects of COVID-19 within the nursing home systems. Socioeconomic status and Medicare dependency were also found to greatly influence the ability for a nursing home facility to properly address the COVID-19 crisis. Regarding Medicaid as an influential factor, it was found that some of the literature disagreed with Medicaid being a significant factor. However, most of the research literature still suggested that Medicaid policies played a negative role in the effects of the COVID-19 pandemic over the nursing home systems. Poor business practices were found to greatly impede the creation of proper preparations for dealing with the pandemic. Poor business practices were also found to decrease the effectiveness of responses towards dealing with the pandemic and stagnate the overall process of mitigating the pandemic due to shortages in proper equipment and supplies. On the whole, the literature review conducted in this paper showed that many previously existing issues within the nursing home system were critical factors in the lack of efficiency and preparation that nursing homes had in dealing with the COVID-19 pandemic.

Future trends

The evidence highlighted in this article demonstrates the current flaws within nursing home facilities that exacerbate the effects of the ongoing pandemic. The article highlights these flaws within nursing home facilities at an attempt to inspire future change when it comes to finding solutions in order to prevent the recurrence of the consequences examined due to negligence, societal misconceptions, and lack of preparedness. For the issue of ageism's physical and mental effects on the elderly, it is crucial that further research is conducted on how technology affects the overall public discourse surrounding ageist attitudes and potential ways in which effective cultural change can be implemented to better address the unique needs of the elderly population. For socioeconomic factors, more research on how to properly distribute the wealth within communities and provide adequate funding to all healthcare facilities regardless of region in order to have fair and effective resources for all individuals regardless of socioeconomic or racial status. For Medicare and Medicaid, further research within

nursing home facilities on how Medicare and Medicaid policies can be revised to implement more adequate funding levels needed for the operation of nursing homes and to ensure that nursing homes are not reliant on one of the two systems. Regarding poor business practices, more research is needed on the specific management decisions and inner workings of these nursing homes and how these nursing home facilities are distributing and spending their funds.

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