



Review article

'An invisible human rights crisis': The marginalization of older adults during the COVID-19 pandemic – An advocacy review



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ABSTRACT

The world has endured over six months of the Coronavirus disease 2019 (COVID-19). Older adults are at disproportionate risk of severe infection and mortality. They are also vulnerable to loneliness and social exclusion during the pandemic. Age and ageism both can act as significant risk factors during this pandemic, increasing the physical as well as psychosocial burden on the elderly. A review was performed in relation to the psychosocial vulnerabilities of the older adults during the pandemic, with insights from the similar biological disasters in the past. Besides the physiological risk, morbidities, polypharmacy and increased case fatality rates, various social factors like lack of security, loneliness, isolation, ageism, sexism, dependency, stigma, abuse and restriction to health care access were identified as crucial in pandemic situation. Frailty, cognitive and sensory impairments added to the burden. Marginalization and human rights deprivation emerged as a common pathway of suffering for the elderly during COVID-19. The implications of the emergent themes are discussed in light of psychosocial wellbeing and impact on the quality of life. The authors suggest potential recommendations to mitigate this marginalization on lines of the World Health Organization (WHO)'s concept of Healthy Ageing and the United Nations (U.N.) Sustainable Development Goals.

1. Introduction

The world is now seven months into the COVID-19 pandemic – first reported as an outbreak at Wuhan, China in December, 2019 (World Health Organization, 2020). The WHO received reports of a cluster of cases of the infection from China on 31 December, 2020, declared a Public Health Emergency of International Concern (PHEIC) on 30 January, 2020 and recognized the infection as a pandemic on 11 March, 2020 (WHO COVID-19 Situation Report 189, 27 July, 2020). In parallel, the first case of infection was reported in Kerala, India on 30 January, 2020, provisions of the Epidemic Diseases Act, 1897 invoked on 11 March, 2020 and a notified disaster announced on 14 March, 2020 (WHO COVID-19 India Situation Report 26, 26 July 2020). The pandemic has had and continues to have wide reaching consequences across the world. It is hypothesized that the changes in health related behaviours, relationships, education, work, travel and socialization emerging in response to this pandemic may last long after the coronavirus infection has run its course (Scott, 2020). However, the impact of the pandemic on older adults (above 60 years of age) does not appear to have been adequately explored to date (WHO, 2020).

SARS-CoV-2, the causative agent of the COVID-19 pandemic carries disproportionate risk for infection, disease, morbidity and mortality in

older adults (WHO, 2020). In addition to direct risks to older adults caused by their increased vulnerability – there are several latent or indirect risks to the health and wellbeing of older adults that emanate from socio-cultural and demographic factors. There have been letters in the Lancet and the Journal of the American Geriatrics Society addressing the risks of isolating the elderly and elder abuse, respectively (Armitage and Nellums, 2020; Han and Mosqueda, 2020). The authors have not, however, in their review of literature, found a comprehensive addressal of the all the direct and indirect risks that older adults face due to the pandemic. A recent review by Banerjee et al. (2020) warns about the multi-faceted physiological and psychosocial vulnerabilities of the elderly during the ongoing crisis and stresses on an integrated biopsychosocial care model for their wellbeing.

This advocacy review intends to be a thematic analysis and synthesis of both direct and indirect risks to older adults during the COVID-19 pandemic. Many of these risks appear to be unique to this age group. The authors hypothesize that there is a possible final common pathway linking these risk factors to adverse health outcomes in older adults – marginalization, as a consequence of ageism (Carmen and Adrian, 2012). Subsequently community based, targeted intervention strategies to address this marginalization – based upon the WHO Global Strategy on Ageing and Health and aligned to the UN Sustainable

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Development Goals are suggested.

2. Direct risks to older adults

The most obvious risks to older adults during the pandemic emerge from the relationship between the agent, host and environment – between the virus, the health status of the older adult and the pathophysiological response to the infection.

2.1. Morbidity

Older adults are more likely to develop a symptomatic rather than an asymptomatic infection. Of those who develop a symptomatic infection – older adults are further, more likely to develop a moderate to severe infection than a mild infection. The percentage of infected individuals requiring hospitalization appears to rise sharply over the age of 50 years. Data based on cases reported from China noted that hospitalization was required in 4.25% of cases detected between 40 and 49 years, 8.16% between 50 and 59 years, 11.8 % between 60 and 69 years, 16.6% between 70 and 79 years and 18.4% above 80 years of age (Verity et al., 2020).

A comparison study in china found that older adults are more likely than young and middle aged adults to have a Pneumonia Severity Index (PSI) of IV or V (indicating severe infection). They were more likely to have multiple lobar involvement on CT scan, have a lower percentage of lymphocytes in their differential count and higher C reactive protein (CRP) levels. They also appeared more likely to develop acute respiratory distress syndrome (ARDS), multi-organ dysfunction syndrome (MODS), require invasive mechanical ventilatory support and respond more rapidly to interferon therapy – though these differences did not reach statistical significance (Liu et al., 2020). The risk for infection and disease is linked to impaired presentation of antigen by the NK lymphocytes to T and B lymphocytes due to the decline in immunocompetency with age. This is associated with an increased cytokine response to the infection – causing a widespread inflammatory response which leads to multi-organ dysfunction and respiratory failure (Adhikari et al., 2020).

2.2. Mortality

An approach to modelling the severity of infection due to the novel (SARS-CoV-2) coronavirus (based on data from China) published in the Lancet estimated a case fatality ratio of 4.5 % in people over 60 years of age, compared to 1.4 % in people below 60 years of age. The case fatality ratio was the highest in those aged above 80 years – 13.4% of all cases detected (Verity et al., 2020). This increased vulnerability of older adults has contributed to higher case and mortality rates in countries undergoing population ageing. In a statement by the WHO Regional Director, Europe, it was noted that 29 of the 30 with the largest proportion of older adults were member states of Europe (except Japan). 95% of the deaths in these countries occurred in adults over 60 years of age and 50 % of deaths in those over 60 years of age (WHO Europe Statement on Older Adults in COVID-19, 2020).

In India, 51.2 % of the mortality due to COVID-19 has been in people over 60 years of age, as reported by the Government of India on April 30, 2020 (Diwanji, 2020). The risk for severe infection and mortality appear to be linked to stochastic age (reflecting underlying oxidative stress and epigenetic changes) rather than chronological age. Thus, frailty and mobility appear to mediate the relationship between infection and an adverse health outcome (Begely, 2020)

2.3. Comorbidities

Among those infected, patients with co-morbidities are more likely to develop severe infection and mortality than those without co-morbidities (Guan et al., 2020) Multi-morbidity increases with age. An

epidemiological study in Scotland reported two or more chronic health conditions in 30.4% of adults between 45 and 64 years, 64.9% between 65 and 84 years and 80% above 85 years of age (Divo et al., 2014). Of cases reported from China, 25.1% of patients reported at least one co-morbid medical illness and 9.2% reported having two or more co-morbid medical illnesses. The mean age of patients with at least one co-morbidity was 60.8 years and with those with two or more co-morbidities was 66.2 years compared to the mean age of 48.9 years in the study population. Both groups had a poorer prognosis than those without co-morbidities with a hazard ratio of 1.79 and 2.59, respectively (Giacomo et al., 2020).

2.4. Adverse drug events

Older adults are also more prone to adverse drug events as a consequence of exposure to pharmacotherapeutic agents used in the treatment of the novel coronavirus. This is partly due to pharmacokinetics with age leading to an increased drug half-life and reduced plasma clearance rates (Sun et al., 2020). This risk is unclear (though non-negligible) and extend to several off label therapies which are under study including – chloroquine/hydroxychloroquine, lopinavir/ritonavir, amantadine, interferon and plasma therapy. A trial of chloroquine in Brazil has been halted prematurely due to concerns about cardiotoxicity (Borba et al., 2020). Reported adverse drug effects in cases with off label therapies include – cardiotoxicity (including QTc prolongation and arrhythmia), renal, hepatic, visual and hearing impairment; and dermatitis (Dimitrova, 2020). Open labelled studies also document the increased possibility of drug-drug interactions and cumulative toxicity, as seen with the concurrent administration of lopinavir and azithromycin (Singh et al., 2020).

3. Indirect risks to older adults

While direct risks to older adults emerging from infection by the novel coronavirus in the COVID-19 pandemic are obvious and have been addressed, at least partially, by the public health response to the pandemic – there are several implicit risks that the pandemic carries for older adults (Berg-Weger and Morley, 2020).

Some of these risks to their health and wellbeing have existed prior to the pandemic, such as ageism and impaired access to health care resources. Others, such as the more stringent curbs imposed by public health authorities on the movement of older adults and triage systems which place lower priority upon infected older adults – are novel to and unique to the pandemic (Avenue, 2020).

Unlike direct risks to older adults, which have a predominantly biological focus, the indirect risks are a combination of biological, psychological and social factors. The authors describe the indirect factors in the following sections.

4. Psychosocial factors

4.1. Ageism

The WHO defines ageism as the stereotyping, prejudice and discrimination against people on the basis of their age. It goes on to note that ageism is the most socially normalized of all forms of discrimination – unlike sexism and racism (WHO Report on Ageing and Health, 2015).

The phenomenon of ageism is neither new nor surprising in the community. Older adults are stigmatized on the basis of their chronological age and negative stereotypes are attached to the physical, cognitive and emotional changes which occur with age. There is widespread structural exclusion from opportunities in education, employment, housing, transport, health care, social services and legislation. Illnesses, including mental health conditions and neurodegenerative diseases are often normalized, erroneously, as part of the ageing

process. These ageist stereotypes, prejudice and discrimination are internalized by older adults and act as barriers in the pathways to care. Older adults are far less likely to involve in activism and advocacy for inclusivity and equal rights because of the implicit belief that they must sacrifice their wellbeing and “make way” for the younger generations to replace them (Cohen, 2001; Walsh et al., 2011; Donizzetti, 2019)

The COVID-19 pandemic, as with previous global health crises such as the bubonic plague, influenza, the world wars and economic depressions – has acted to further normalize ageism, ironically, right at the outset of the WHO Decade for Healthy Ageing (2020-2030) (Lloyd-Sherlock et al., 2019). The increased vulnerability of older adults to the pandemic, as well as the larger need for health care resources – including greater number of days of hospitalization, intensive care and ventilatory support has been counterweighed against their perceived lower productivity and potential to contribute to society (Baker and Fink, 2020). This cost benefit analysis has led to public health care currently prioritizing young and middle aged adults over older adults (Lintern, 2020).

Far more disturbingly – this utilitarianism has led to an increase in the social acceptability of articulating ageist beliefs and prejudices. This is reflected by political leaders and news media in some countries suggesting that the pandemic is a means of culling people who are no longer competent to survive or of use to society (Aronson, 2020). There has also been a call on older adults to stay at home and not burden an overwhelmed health care system – sacrificing themselves for the good of society (Fernandez and Montgomery, 2020). Hashtags such as “boomer removal” have been trending on social media platforms – implying that it is now acceptable to ask older adults to die (Sparks, 2020).

There have also been reports of events of hate crimes perpetuated against older adults who venture out to procure essentials or seek care during the pandemic (Al Jazeera, 2020). These events appear to be linked to the perceived violation of government issued guidelines and risk associated with movement

To summarize, ageism contributes to risks to older adults in the form of structural exclusion, micro-aggression and hate crimes which adversely affect their health and wellbeing. These factors may continue to do operate long after the pandemic subsides and curbs are relaxed (Morrow-Howell et al., 2020)

4.2. Sexism

Sexism is the prejudice, stereotyping and discrimination against individuals – usually women, based upon their sex or gender (Parry, 2014; WHO Gender, Equity and Human Rights, 2020). Older adults are increasingly subject to sexism – which interacts with ageism in a complex manner (AGE Platform Europe, 2020). Women outlive men – an observation that has been attributed to the protective effects of oestrogen and increased biological and psychological resilience. The life expectancy at birth in India is 69 years as of 2018 (68 years in men and 71 years in women) (World Bank, 2019). The life expectancy at 60 years in India as of 2016 was 17.9 years (19 years in women and 16.9 years in men) (MOSPI GOI, 2016).

As a result of this survival advantage - they also outnumber men as they age. The Report on the Elderly in India, published by the Ministry of Health and Family Welfare in 2016 stated a sex ratio of 1033 females per 1000 males above 60 years of age (compared to 943 in the general population) (MOSPI GOI, 2016). The WHO also reports that women are widowed three times as often as men between the ages of 60 and 64 years. The majority of older people living in single person households are women (World Health Organization, 2015). A study by Agewell Foundation in India reported that over half of all older women reported facing marginalization and discrimination upon the basis of their gender. Traditional gender roles and norms which limit agency and autonomy in women are considered at least partly responsible for gender based marginalization and discrimination (Agewell Foundation,

2016).

Gender disaggregated data from UN Women on COVID-19 indicates there is no significant difference in prevalence in men and women across the world (54.3% versus 45.7 % of all reported cases). In India, however, 76% of all reported cases were in men and 24 % in women – a clear deviation from global trends in May 2020, with subsequent gender disaggregated data not available (UN Women, 2020). A provisional analysis of data by age and gender indicates that cases in men outnumber women among young and middle aged adults (between 20 and 49 years of age) and among older adults, (between 50 and 79 years of age). This may be indicative of an interaction between age and gender with an increased survival advantage in older women that is perhaps lost in the very old (UN Women, 2020).

However, men are significantly more likely to have a severe COVID-19 infection and 2.4 times more likely to have an infection than women at all ages (Jin et al., 2020). In India, 73 % of all reported mortalities were been in men and 27 % in women until May, 2020 – keeping in with global trends, with recent data yet to be reported (WHO COVID-19 India Situation Report 26, 26 July 2020).

Despite the biological advantage across the lifespan and in response to the COVID-19 demonstrated by women – gender inequality has been a defining factor of the pandemic. A technical brief by the United Nations Population Fund (UNFPA) has noted that women are less likely than men to be involved in the decision making process during the pandemic – including with regard to their own health. Women have poorer access to all health care – including financial resources and facilities for travel. They are also inadequately represented in planning and administration during the global and national response to the pandemic. Women are more likely to undertake the caregiving burden and suffer a loss to livelihood as a result of the pandemic. They are also more likely to experience domestic violence and adverse mental health outcomes as a consequence of the restrictions (UNFPA, 2020).

While studies of gender inequality during the pandemic have not examined the impact upon older women – it may be conjectured that the dual minority status of older women (as older adults and women) would render them more prone to discrimination and exclusion from health and social welfare services. While such inequity was always present, the gender and age divides show signs of widening during the global response to COVID-19. Older people are more likely to be women and thus face double discrimination across the world (Dixit and Chavan, 2020).

4.3. Loneliness and social isolation

Loneliness is the subjective perception of a lack of meaningful relationships. Social isolation the objective lack of social engagements and contact. Both phenomenon have been declared a global epidemic in older adults in 2017 (Lambrini, 2016). Between one third and half of the older adults across the world and in India have reported varying degrees of loneliness and social isolation prior to the onset of the COVID-19 pandemic in December 2019 (Singh and Misra, 2009; Panwar et al., 2019).

Amidst the global response to the pandemic, older adults, due to their susceptibility to novel coronavirus have been issued shelter in place and stay at home orders to ensure their safety and restrict the spread of infection in the community. The call for social distancing (relabelled physical distancing in March, 2020 by the WHO). and self-isolation has worsened the pre-existing loneliness and social isolation in older adults.

Older adults have been most frequently isolated in their residence, cut-off from physical contact with friends and families. Social engagements and community gatherings – the most important source of integration of the older adult in the community have been suspended. Physical contact – an important component of intimacy and reassurance in old age, has been discouraged (Agarwal, 2020).

Virtual interaction through phone calls, video conferencing and

social media have emerged as an alternative form of social engagement. However, the accessibility of smart devices in older adults is poor, particularly in developing countries (digital exclusion). An Agewell Foundation Study found about 85.8% of older adults in India were digitally illiterate (Agewell, 2020). Contrary to the myth of older people being unable to master new skills, studies using blended pedagogy-based learning modules have demonstrated that older adults are capable of acquiring digital literacy (Martinez-Alcala et al., 2018). However, little to no efforts have been made to engage older adults in digitization during the pandemic.

4.4. Dependency

Dependency increases with age – with older adults often requiring assistance with finances, instrumental and basic activities of daily living. The increasing lifespan also means that older adults live more years of their life with disability and dependency. The old age dependency ratio (number of people above 60 years of age per 100 people between 15 and 59 years of age) was 14.2 % in India in 2011 (14.9 % in women and 13.6 % in men) (MOSPI GOI, 2016). The Cognitive Function and Ageing Studies from the UK suggest that older men spend 36.5 % and older women 52.7 % of their lives living with dependency needs (Kingston et al., 2017).

Dependent older adults are both more vulnerable to the infection and the vicissitudes of disruption of services due to the lockdown to curb the pandemic.

4.5. Elder abuse

The WHO defines elder abuse as a single or repeated act or lack of appropriate action, occurring within any relationship where there is an expectation of trust, which causes harm or distress to an older person (Kingston et al., 2017). Around 15.7 % of older adults across the world have experienced elder abuse in the past year. The perpetrator in community dwelling older adults is most commonly a family member. Among institutionalized older adults, around 64.2 % of staff perpetuated elder abuse in the past year (Elder Abuse WHO, 2020). A HelpAge India report in 2018 reported a lifetime prevalence of elder abuse in 25 % of respondents. India, at present, lacks specific legislation or welfare commissions to address elder abuse (HelpAge India, 2018). The COVID-19 pandemic, by isolating older adults, has placed them in sustained and closer contact with their caregivers, under stressful circumstances has increased the vulnerability of older adults to violence, abuse and neglect (VAN) (Han and Mosqueda, 2020). Preliminary reports from developed countries report a 10 fold increase in report of elder abuse during the pandemic. The incidence of elder abuse in developing countries such as India, during the pandemic is yet to be evaluated systematically but may be considerable

5. Factors related to public health policy

5.1. Allocation of health care resources

The scarcity of health care resources during the pandemic has meant that hospitals in countries overwhelmed with cases (such as Italy) have had to prioritize patients with better chances of survival (Lintern, 2020). The ethical underpinnings of such triage is questionable – carrying the implication that older lives may be worth less than younger ones (Joebges and Biller-Andorno, 2020). Other non-essential health care services pertinent to the elderly have been interrupted to reallocate health resources for the pandemic. These include psychotherapy, training for neurocognitive disorders, physiotherapy, occupational therapy, dental care, visual aids, hearing aids, elective surgeries and palliative care (MOHFW GOI, 2020).

A survey by AgeWell Foundation reported that the most pressing concern for older adults during the lockdown in India was access to

medicines and physiotherapy for pre-existing medical conditions (44 % of 5000 respondents). Around 55 % of older adults participating in the survey also reported that the lockdown had affected their general health adversely (Agarwal, 2020).

5.2. Availability of essential resources and services

Older adults, due to exclusion are more likely to be vulnerable to disruption in the availability of food, water, medicines, groceries and other essentials. Curbs in some regions prohibit older adults from leaving their house, even to procure essentials, without making alternative arrangements for food and social security. Some countries such as Italy have initiated door delivery of medicines and food to older adults during the pandemic (Boccia et al., 2020). In India, while states such as Kerala are undertaking door delivery of food and other essentials to the vulnerable (including older adults), this has not yet been addressed at a national level (Technology Review, 2020).

5.3. Social welfare resources

Community outreach services have been disrupted in several regions. These include adult protective services, day care centres, community centres and home visits by health and social workers. Public administrative services such as registration for pensions and social welfare have also been temporarily suspended. These measures further contribute to structural isolation of older adults during the pandemic (Andrade, 2020).

Older adults are likely to lack documentation which is a prerequisite for the provision of aid and face an inability to procure them with the suspension of administrative services. Older migrants, refugees and displaced persons are particularly vulnerable to exclusion.

6. Marginalization as a final common pathway

The authors postulate the marginalization which occurs with ageing as a possible final common pathway – incorporating the direct and indirect risk factors to the health and wellbeing of older adults during the COVID-19 pandemic (Lambrini, 2016).

6.1. Marginalization of older adults before the COVID-19 pandemic

Age based discrimination across the world has existed prior to the pandemic. It interacts with other forms of discrimination such as those based on gender, social status, economic class, race, ethnicity, nationalism, migration, religion, gender identity, sexual orientation and disability in a constant and evolving manner detrimental to older adults. Between 55 and 70 % of older adults reported marginalization across the world, prior to the pandemic (Walsh et al., 2016). A scoping review on the social exclusion of older adults has noted four common features:

6.1.1. Relativity

The social exclusion of older adults is always relative to normative or mainstream society. Older people are identified as the other and dehumanized. Social structures such as old age homes and geriatric clinics while providing specialized services to older adults have also contributed to their segregation from the general population.

6.1.2. Agency

The process of social exclusion also deprives older adults of their agency, autonomy and independence with decisions being made on their behalf and for their own good.

6.1.3. Dynamicity

The social exclusion is also dynamic and ever evolving with people moving in and out of categories and identities. The factors contributing to social exclusion do not stay static but interact with each other and

evolve over time to assume new forms.

6.1.4. Multi-dimensionality

The process of intersectionality and the minority stress hypothesis imply that there are often multiple factors contributing to social exclusion. The factors have a cumulative effect and a longitudinal impact upon health and wellbeing.

The six domains of social exclusion identified in the scoping review were:

- i Neighbourhood and community
- ii Social relations
- iii Services, amenities and mobility
- iv Material and financial resources
- v Socio-cultural aspects
- vi Civic participation

6.2. Marginalization of older adults during the COVID-19 pandemic

The authors note the similarity between the domains of social exclusion of older adults identified prior to the pandemic and the indirect factors affecting the wellbeing of older adults during the pandemic (Walsh et al, 2016).

The disease control measures implemented to flatten the curve of the pandemic are admirable and were direly needed from the public health perspective. However, the vulnerability of older adults to the novel coronavirus infection has meant that curbs and restrictions were often most stringently applied to them. These curbs have interacted with the conventional social exclusion to produce new forms of marginalization. This appears to have further undermined the precarious hold on autonomy, independence and agency held by older adults. While alternative models for service delivery based on digitization have emerged, widespread digital illiteracy in older adults has meant that the penetration of services is poor above 60 years of age. Thus, salvage services are least available where it is most required.

The final common pathway that the direct and indirect factors (ranging from stringent shelter in place orders to prioritization of services) the authors have noted lead to, appears to be the exacerbation of pre-existing marginalization of older adults during the COVID-19 pandemic. A utilitarian approach to physical distancing has meant that older adults were isolated in the community for their and our wellbeing with few remedial or coping strategies available.

6.3. Marginalization of older adults after the COVID-19 pandemic

As the world emerges from the pandemic and lockdown in the mid to distant future, concern about the heightened marginalization of older adults may continue to operate in the community at higher than pre-pandemic levels. There have been preliminary warnings from epidemiologists and in public health administration about the need for a prolonged physical distancing in older adults. While this may be necessary to protect them from infection – the implications upon their physical, mental, social and emotional health and wellbeing are manifold (Lambrini, 2016).

6.4. Social integration as an alternative pathways to marginalization

While the factors that have been described operate through exclusion and social isolation of the older adult from the community, the authors do not, by any means wish to imply that marginalization is the only pathway which is operative in ageing. Ageing is usually successful and has the potential to be a rich and fulfilling experience for the older adult, with older adults retaining autonomy, agency and independence. This is particularly noted in communities such as in the Middle-East and South-East Asia, where older adults are revered and held in high regard (Zubair and Norris, 2015).

A counter-pathway is social integration – postulated as comprising of two domains:

- 1 Effective and evaluative sense of belonging to the community
- 2 Behavior that is reflected in active involvement of older people in various aspects of community life, including issues of access and their links within their local community (Vitman et al, 2014).

Indeed, social integration is a vital part of healthy ageing, mediated by factors including ethnicity and migration experiences, as well as the nature of community living. Social integration has the potential to contribute to resilience and may act as a protective factor against the vicissitudes of isolationism.

7. Healthy ageing and sustainable development

The WHO defines healthy ageing as the process of developing and maintaining the functional ability that enables wellbeing in older age (Healthy Ageing WHO, 2020) Functional ability is about having all the capabilities that enable all people to be and do what they have reason to value. This includes a person's ability to:

- 1 Meet their basic needs
- 2 Learn, grow and make decisions
- 3 Be mobile
- 4 Build and maintain relationships
- 5 Contribute to society

Functional ability is made up of the intrinsic capacity of the individual, relevant environmental characteristics and the interaction between them.

The Global Strategy and Action Plan on Ageing and Health was adopted by the World Health Assembly in 2016 to prepare for the Decade of Healthy Ageing which began in 2020 and will last until 2030. The vision for this political mandate was to create a world in which everyone may live a long and healthy life (WHO, 2017).

The strategic objectives of the global strategy were:

- 1 Commitment to action on healthy ageing in every country
- 2 Developing age-friendly environments
- 3 Aligning health systems to the needs of older populations
- 4 Developing sustainable and equitable systems for providing long-term care
- 5 Improving measurement, monitoring and research on healthy ageing

The Decade for Healthy Ageing is also aligned to the achievement of the Sustainable Development Goals as part of the 2030 Agenda for Sustainable Development. The WHO has noted that ageing is an issue relevant to 15 of these 17 goals (WHO, 2017).

The COVID-19 pandemic, as is the nature of pandemics and other natural disasters, was sudden and unexpected and will undoubtedly impact the global initiative towards the attainment of Healthy Ageing and Sustainable Development. The authors are unsure of the extent to which work on these agendas will be affected, but this is cause for concern.

The authors recognise this uncertainty and the link to the marginalization of older adults and would like to make a case for an approach to the pandemic which incorporates rather than leaves out both healthy ageing and sustainable development. Older adults must be made part of the global response and not left behind during disease control.

8. Suggestions for interventions to address marginalization of older adults during the COVID-19 pandemic

The Asian Working Group on Sarcopenia (AWGS) in a call for action

has made specific recommendations to address the health and well-being of older adults during the COVID-19 pandemic (Lim et al, 2020).

Problem-targeted strategies are suggested to enable inclusion of older adults and combat marginalization during the COVID-19 pandemic based upon the WHO conceptualization of healthy ageing.

8.1. Prioritization of older adults in health care

Older adults, by virtue of their vulnerable status, constitute a high risk group. The authors suggest a programme for community based screening of older adults integrated into primary health care. Integration of screening into primary care would help overcome the barriers in the pathways to care that older adults face. This must be supplemented by resources for referral and management which cut down on the time to treatment in older adults. Older adults must also be prioritized for access to protective equipment (such as masks and sanitizers) in areas of scarcity (Alzheimer Europe, 2020)

Older adults are also likely to be asymptomatic or manifest with atypical presentations (such as delirium or peripheral vascular insufficiency) in the absence of imaging findings. They would thus, merit from a higher index of suspicion and lower threshold for testing. In countries such as India, where testing rates are low, prioritization of older adults for testing would improve case detection.

Earmarking beds and intensive care facilities in designated COVID-19 centres for older adults may help improve care delivery to this age group (Alzheimer Europe, 2020).

8.2. Ensuring continuity of delivery of care for other medical conditions

Provision for rapid and easily accessible prescription refill for older adults with chronic medical conditions would enable continuity of care for these illnesses. Door to door delivery of medicines, as practised in Italy, would ensure that older adults do not run out of essential medicines (Lim et al, 2020).

Where elective services such as physiotherapy, cognitive retraining, psychotherapy, provision of sensory aids, elective surgeries and palliative care have been suspended - ensuring alternate modalities of care delivery (such as tele-medicine) is recommended. Older adults also have to deal with uncertainty regarding resumption of elective services and an indefinite waiting period. Proactive follow up over the telephone by health care workers might identify evolving concerns and provide simple instructions for care to older adults and their caregivers. Telephone contact with the health care provider often goes a long way towards allaying the apprehensions of the older adult, even when there may not be an immediate solution available (Lim et al, 2020).

8.3. Contingency for emergencies

A large proportion of older adults are likely to live alone. Providing contingencies for emergencies such as falls, injuries or a sudden worsening of their medical status in the form of buzzers or alarms, emergency contact numbers and ambulance services is recommended. Early and rapid response to the medical emergency in the older adult would reduce rather than increase the burden on the health care system.

Some communities have come up with creative solutions such as hanging a red cloth from the window to communicate an emergency.

8.4. Food security

The door to door delivery of food, fuel, groceries and other essential consumables using community outreach services may maintain nutrition and other basic needs during the pandemic (Fernandes et al, 2018).

8.5. Social welfare

Efforts must be made to ensure that pensions and other social

security benefits are delivered uninterrupted to older adults, for many of whom, these may be the only source of sustenance.

Where older adults are unable to avail aid due to the lack of documentation, a temporary relaxation of rules may ensure welfare delivery (with due precaution against diversion and stock piling).

In some places, older adults have been threatened with eviction from their residence due to financial constraints. Social intercession and mediation may be required for those at risk in such ways (CDC, 2020).

8.6. Repatriation of older migrants and travellers

Several countries are undertaking the repatriation of citizens trapped overseas due to the lockdown and travel restrictions. Arrangements are being made for chartered flights and ships to bring overseas migrants to India. Older adults and other vulnerable groups have been allotted high priority for repatriation (UN News, 2020).

Similar reintegration efforts are suggested within countries too, for those trapped away from their place of residence in socially unstable conditions. It is recommended that shelter in place guidelines be interpreted in context of the social environment and security of the older adult. Pandemic control must not come at the cost of leaving vulnerable population groups homeless and starving (UN News, 2020).

8.7. Helplines

Physical distancing and shelter in place directives place older adults at risk of loneliness, isolation, anxiety, depression, cognitive decline, frailty and abuse. Cessation of home visits by Adult Protective Services (APS) such as in the USA places the older adult in a vulnerable position (NAPSA, 2020).

Elder abuse is a key area of intervention. Helplines by healthcare, welfare organizations and social services may provide older adults a safe way to report abuse and seek safety and legal aid. These services may be integrated with APS where available.

The availability of helplines would enable older adults to reach out for support in times of distress. Helplines should also have the provision to connect older adults to emergency medical, legal and/or social care as required in cases of risk of harm to self or others (HelpAge India, 2020).

8.8. Digital literacy

Provision of simple written instructions and/or recorded messages may help older adults navigate the transition to digitization of services during the pandemic. Studies have shown that an integrated approach to digital literacy – using support staff and education material works best in improving digital literacy in older adults (Agewell Foundation, 2020).

8.9. Virtual communication

Frequent phone and video calls by friends, family members and case workers to check in on the older adult would go a long way towards mitigating isolation and feelings of disconnectedness. It is recommended that community centres and day care centres facilitate digital services where feasible rather than suspending care altogether. Older adults may find it harder to make the transition to digital services and require handholding. However, channels for interaction, once established, may be quite fulfilling for the older adult (Conger and Griffith, 2020).

8.10. Discussion of care directives

Older adults are aware of and often worry about their increased susceptibility to the coronavirus infection. A discussion of advance care directives including do not resuscitate protocols would ensure that the

older adult maintain agency in illness (U.S. Department of Health and Human Services, 2020). End of life care and COVID-19 protocols to be followed for their interment must be discussed with the ill in a collaborative manner.

8.11. Addressal of cognitive impairment (including dementia)

Older adults with delirium, major and minor neurocognitive disorders are vulnerable to deterioration due to the deprivation of environmental stimuli. There have been preliminary reports of a worsening of behavioural and psychological symptoms of dementia due to physical restrictions and under-stimulation. Providing serial reorientation, visual and auditory aids, tactile stimulation, structuring their daily routine and incorporating cognitively stimulating material (art, music, aromatherapy, puzzles and games) ensures home based addressal of cognitive deficits (Wang et al, 2020).

8.12. Long term care facilities (institutionalization)

Old age homes, residential centres, nursing homes, palliative care and other long stay facilities for older adults often have large numbers of high risk older adults. Close contact between inmates may lead rapid spread of infection (as reported in some facilities in the USA). Care must be taken to ensure physical distancing between inmates, without causing social isolation. Where visits from friends and family are discouraged, facilities must come up with alternate ways to ensure social contact such as video conference. Older adults must have access to masks and sanitation in long term care facilities. A higher index of suspicion and lower threshold for cases is recommended (Preparing for COVID-19 CDC, 2020).

8.13. Positive health campaigns

Simple home based measures that older adults may take up at home to ensure positive health and wellbeing (such as eating a nutritious diet, sleep hygiene, physical exercise, journaling, meditation and relaxation techniques) may be discussed through information, education and communication (IEC) campaigns on media platforms (Home Care Assistance, 2020).

8.14. Addressal of diversity

Older adults do not form a homogenous group and are subject to considerable diversity. The global response to the COVID-19 pandemic has not taken into account the diversity in ageing while issuing guidance and advice (COVID-19 Response, 2020).

Gerodiversity is the multicultural approach to issues of aging. This approach provides a theoretical foundation for the medical and psychological treatment of older adults within an ecological context that includes their cultural identity and heritage, social environment, community, family system, and significant relationships). Gerodiversity encompasses a social justice framework, which considers the social and historical dynamics of privilege and inequality (Iwasaki et al, 2009). Protective, preventive and care strategies take into account the diversity in ageing and the varying needs of older adults rather than provide a one size fits all directive.

8.15. Opportunities as stake-holders

It is recommended that older adults be stakeholders in policy making during the pandemic, particularly in decisions that impinge on their health and wellbeing. This would enable task forces and administrative bodies to benefit from the experiences and wisdom of older adults in the community. Inclusion in public health policy would ensure that older adults retain agency during the pandemic rather than being recipients of care from a paternalistic authority.

8.16. Ethics and COVID-19

Finally, COVID-19 has produced a flurry of research and literature (including ours). A data driven approach to health care is central to the response to novel coronavirus. However, there has been concern about patient privacy being breached during contact tracing. The scientific imperative should not override bioethical principles. Respect for consent (or assent, as appropriate) in vulnerable populations must be maintained (UN News, 2020)

9. Conclusion

The world has endured seven months of the novel coronavirus pandemic (COVID-19). During this period, older adults face diverse, interrelated risks to their health and welfare due to direct (biological) and indirect (biological, psychological and social) factors. Some of these such as ageism and sexism existed even prior to the pandemic. Others such as an increased risk of morbidity and mortality, and restricted access to essential services have arisen in the context of the pandemic. These risks appear likely to operate even after the world emerges from the pandemic. Marginalization of older adults appears to be the final common pathway through which these factors operate.

Based upon this, the authors recommend specific and targeted interventions, which may be delivered through the existing health care system such as shortening the pathway to care for older adults, provision of essential care through primary care services, door delivery of medicines and other essentials through community health workers, prioritization of older adults among repatriation of migrants and refugees and continued provision of social security (including food security to the vulnerable and underprivileged). This may be integrated with the existing public health measures in the context of the pandemic such as provision of health information to older adults, helping them transition onto digital service usage with guided instructions and formation of advance care directives. Special circumstances such as older adults with cognitive impairment and those in long term care facilities are particularly vulnerable to COVID-19 and merit a higher index of suspicion and testing. These measures are most effective when integrated into existing services to reduce resource burden, particularly in lower and middle income countries (LMIC) and aligned to the WHO Decade of Healthy Ageing 2020-2030 and to the UN Agenda for Sustainable Development 2030. Older adults must be included as stakeholders in their health, with addressal of diversity in ageing and emphasis on resilience. This advocacy review might help establish a framework for the same and encourage further research.

Declaration of Competing Interest

None.

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None

Supplementary materials

Supplementary material associated with this article can be found, in the online version, at [doi:10.1016/j.psychres.2020.113369](https://doi.org/10.1016/j.psychres.2020.113369).

References

- Adhikari, SP, Meng, S, Wu, Y-J, Mao, Y-P, Ye, R-X, Wang, Q-Z, et al., 2020. Epidemiology, causes, clinical manifestation and diagnosis, prevention and control of coronavirus disease (COVID-19) during the early outbreak period: a scoping review. *Infect. Dis. Poverty* [Internet] 9 (1), 29. Mar 1727 [cited 2020 May 9] Available from: <https://idpjournals.biomedcentral.com/articles/10.1186/s40249-020-00646-x>.
- Agarwal P. Covid-19: In urban India, the elderly are grappling with hunger and fears of dying alone [Internet]. *Scroll.in*.2020May 5 [cited 2020 May 7]. Available

- from: <https://scroll.in/article/961004/covid-19-in-urban-india-the-elderly-are-grappling-with-hunger-and-fears-of-dying-alone>.
- AGE Platform Europe, 2020. Gender Equality in old age [Internet]. AGE Platform Eur 2020 [cited 2020 May 9]. Available from: <https://www.age-platform.eu/policy-work/gender-equality-old-age>.
- Agewell Foundation, 2020. Agewell digital literacy program for older persons [Internet]. Agewell Found [cited 2020 May 9]. Available from: https://www.agewellfoundation.org/?page_id=5768.
- Al Jazeera News [Internet]. 2020. Elderly man attacked in Canada, targeted with coronavirus slur. Al Jazeera News [Internet]. 2020 Apr 23 [cited 2020 May 9]. Available from: <https://www.aljazeera.com/news/2020/04/elderly-man-attacked-canada-targeted-coronavirus-slur-200423044938550.html>.
- Alzheimer Europe Policy Our opinion on ... - Triage decisions during COVID-19 pandemic [Internet]. 2020 Apr 3 [cited 2020 May 10]. Available from: <https://www.alzheimer-europe.org/Policy/Our-opinion-on/Triage-decisions-during-COVID-19-pandemic>.
- Andrade, C., 2020. COVID-19: humanitarian and health care crisis in a third world country. *J. Clin. Psychiatry* [Internet] 81 (3) Apr 14 [cited 2020 May 10] 0–0. Available from: <https://www.psychiatrist.com/JCP/article/Pages/2020/v81/20com13383.aspx>.
- Armitage, R, Nellums, LB., 2020. COVID-19 and the consequences of isolating the elderly. *Lancet Public Health* [Internet] 5 (5), e256. Mar 20 [cited 2020 May 9] Available from: <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC7104160/>.
- Aronson L. Ageism is making the coronavirus pandemic worse - the Atlantic [Internet]. 2020 Mar 28 [cited 2020 May 9]. Available from: <https://www.theatlantic.com/culture/archive/2020/03/americas-ageism-crisis-is-helping-the-coronavirus/608905/>.
- Baker, M, Fink, S., 2020. At the top of the covid-19 curve, how do hospitals decide who gets treatment? *N. Y. Times* [Internet] Mar 31 [cited 2020 May 9]; Available from: <https://www.nytimes.com/2020/03/31/us/coronavirus-covid-triage-rationing-ventilators.html>.
- Banerjee, D., D'cruz, M.M., Rao, T.S., 2020. Coronavirus disease 2019 and the elderly: Focus on psychosocial well-being, agism, and abuse prevention—An advocacy review. *J. Geriatr. Mental Health* 7 (1), 4.
- Begely, S., 2020. What explains Covid-19's lethality for the elderly? [Internet]. *Stat* Mar 20 [cited 2020 May 9]. Available from: <https://www.statnews.com/2020/03/30/what-explains-coronavirus-lethality-for-elderly/>.
- Berg-Weger, M, Morley, JE., 2020. Loneliness and social isolation in older adults during the covid-19 pandemic: implications for gerontological social work. *J. Nutr. Health Aging* [Internet] Apr 14 May [cited 2020 May 9]; 1–3. Available from: <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC7156792/>.
- Boccia, S, Ricciardi, W, Ioannidis, JPA, 2020. What other countries can learn from Italy during the COVID-19 pandemic. *JAMA Intern. Med.* [Internet] Apr 7 [cited 2020 May 10]; Available from: <https://jamanetwork.com/journals/jamainternalmedicine/fullarticle/2764369>.
- Borba, MGS, Val, FFA, Sampaio, VS, Alexandre, MAA, Melo, GC, Brito, M, et al., 2020. Effect of high vs low doses of chloroquine diphosphate as adjunctive therapy for patients hospitalized with severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) infection: a randomized clinical trial. *JAMA Netw. Open* [Internet] 3 (4) Apr 1 [cited 2020 May 9] e208857–e208857. Available from: <https://jamanetwork.com/journals/jamanetworkopen/fullarticle/2765499>.
- Carmen, SM, Adrian, K., 2012. The Social Marginalization of the Elderly – Probabilistic Analysis Through Markov Models. *Procedia - Social and Behavioral Sciences* [Internet] 46, 504–508. Jan 1 [cited 2020 May 9] Available from: <https://www.sciencedirect.com/science/article/pii/S1877042812012797>.
- CDC. 2020. COVID-19 guidance for older adults [Internet]. Alzheimer's disease and Healthy Ageing, Center for Disease Control; 2020 Apr 16 [cited 2020 May 4]. Available from: <https://www.cdc.gov/aging/covid19-guidance.html>.
- Cohen, ES., 2001. The complex nature of Ageism: what is it? Who does it? Who perceives it? *Gerontologist* [Internet] 41 (5), 576–577. Oct 1 [cited 2020 May 9] Available from: <https://academic.oup.com/gerontologist/article/41/5/576/596571>.
- Conger, K, Griffith, E, 2020. As life moves online, an older generation faces a digital divide. *N. Y. Times* [Internet] Mar 27 [cited 2020 May 10]; Available from: <https://www.nytimes.com/2020/03/27/technology/virus-older-generation-digital-divide.html>.
- Dimitrova, EK, 2020. COVID-19: reminder of risk serious side effects with chloroquine and hydroxychloroquine [Internet]. *Eur. Med. Agency* [cited 2020 May 9]. Available from: <https://www.ema.europa.eu/en/news/covid-19-reminder-risk-serious-side-effects-chloroquine-hydroxychloroquine>.
- Divo, MJ, Martinez, CH, Mannino, DM, 2014. Ageing and the epidemiology of multi-morbidity. *Eur. Respir. J.* [Internet] 44 (4), 1055–1068. Oct [cited 2020 May 9] Available from: <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4918092/>.
- Diwanji, S., 2020. India - COVID-19 cases by age group 2020 [Internet]. *Statista* Apr 29 [cited 2020 May 9]. Available from: <https://www.statista.com/statistics/1110522/india-number-of-coronavirus-cases-by-age-group/>.
- Donizzetti, AR., 2019. Ageism in an aging society: the role of knowledge, anxiety about aging, and stereotypes in young people and adults. *Int. J. Environ. Res. Public Health* [Internet] 16 (8), 1329. Apr 13 [cited 2020 May 9] Available from: <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6517915/>.
- Fernandes, SG, Rodrigues, AM, Nunes, C, Santos, O, Gregório, MJ, de Sousa, RD, et al., 2018. Food insecurity in older adults: results from the epidemiology of chronic diseases cohort study 3. *Front. Med. (Lausanne)* [Internet] Jul 12 [cited 2020 May 10]; 5. Available from: <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6052142/>.
- Fernandez, M, Montgomery, D., 2020. Texas tries to balance local control with the threat of a pandemic. *N. Y. Times* [Internet] Mar 24 [cited 2020 May 6]; Available from: <https://www.nytimes.com/2020/03/24/us/coronavirus-texas-patrick-abbott.html>.
- Giacomo E, di, Bellelli G, Peschi G, Scarpetta S, Colmegna F, Girolamo Gde, et al. Management of older people during the Covid-19 outbreak: recommendations from an Italian experience. *Int. J. Geriatr. Psychiatry* [Internet]. [cited 2020 May 9]; 0(0). Available from: <https://onlinelibrary.wiley.com/doi/abs/10.1002/gps.5318>.
- Guan, W, Liang, W, Zhao, Y, Liang, H, Chen, Z, Li, Y, et al., 2020. Comorbidity and its impact on 1590 patients with Covid-19 in China: a nationwide analysis. *Eur. Respir. J.* [Internet] 0 (0) Jan 1 [cited 2020 May 9] Available from: <https://erj.ersjournals.com/content/early/2020/03/17/13993003.00547-2020>.
- Han, SD, Mosqueda, L., 2020. Elder abuse in the covid-19 era. *J. Am. Geriatr. Soc.* [Internet] 0 (0) Apr 20 [cited 2020 May 9]; Available from: <https://onlinelibrary.wiley.com/doi/abs/10.1111/jgs.16496>.
- HelpAge India. 2018. Elder abuse in India – 2018. changing cultural ethos & impact of technology [Internet]. Help Age India. 2018 [cited 2020 May 9] Available from: <https://www.helpageindia.org/wp-content/uploads/2018/06/ELDER-ABUSE-IN-INDIA-2018-A-HelpAge-India-report.pdf>.
- HelpAge India. 2020. Help for the elderly, senior citizens helpline, Elderly Health Care Services - Help Age India [Internet]. 2020 [cited 2020 May 10]. Available from: <https://www.helpageindia.org/our-work/welfare-development/elder-helplines/>.
- Home Care Assistance, 2020. Promoting mental health for seniors during a pandemic [Internet]. Home Care Assist 2020 [cited 2020 May 10]. Available from: <https://homecareassistance.com/blog/activities-to-keep-seniors-engaged-during-covid-19>.
- Human Rights Watch, Avenue HRW, 2020. Avenue HRW. Rights risks to older people in covid-19 response [Internet]. Hum. Rights Watch 2020 Apr 7 [cited 2020 May 5]. Available from: <https://www.hrw.org/news/2020/04/07/rights-risks-older-people-covid-19-response>.
- Iwasaki M, Tazaeu YN, Kimmel D, Baker NL, McCallum TJ. Gerodiversity and social justice: voices of minority elders. In: Diversity in mind and in action, Vol 3: Social justice matters. Santa Barbara, CA, US: Praeger/ABC-CLIO [Internet]. 2009 [cited 2020 May 10]. p. 71–90. (Praeger perspectives: Race and ethnicity in psychology). Available from: <https://psycnet.apa.org/record/2009-11474-005>.
- Jin, J-M, Bai, P, He, W, Wu, F, Liu, X-F, Han, D-M, et al., 2020. Gender differences in covid-19: focus on severity and mortality. *Front. Public Health* [Internet] [cited 2020 May 6]; 8. Available from: <https://www.frontiersin.org/articles/10.3389/fpubh.2020.00152/full>.
- Joebges, S, Biller-Andorno, N., 2020. Ethics guidelines on covid-19 triage—an emerging international consensus. *Crit. Care* [Internet] 24 (1), 201. May 6 [cited 2020 May 10] Available from: <https://ccforum.biomedcentral.com/articles/10.1186/s13054-020-02927-1>.
- Kingston, A, Wohland, P, Wittenberg, R, Robinson, L, Brayne, C, Matthews, FE, et al., 2017. Is late-life dependency increasing or not? A comparison of the cognitive function and ageing studies (CFAS). *Lancet* [Internet] 390 (10103), 1676–1684. Oct 7 [cited 2020 May 9] Available from: <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5640505/>.
- Lambrini, K., 2016. Social exclusion of elderly. *J. Healthc. Commun.* [Internet] 1 (3) Jun 26 [cited 2020 May 7] Available from: <https://healthcare-communications.imedpub.com/social-exclusion-of-elderly.php?aid=9866>.
- Lim, W-S, Liang, C-K, Assantachai, P, Auyeung, TW, Kang, L, Lee, W-J, et al., 2020. COVID-19 and older people in Asia: AWGS calls to actions. *Geriatr. Gerontol. Int.* [Internet]. [cited May 7]; n/a(n/a). Available from: <https://onlinelibrary.wiley.com/doi/abs/10.1111/ggi.13939>.
- Lintern, S., 2020. 'We are making difficult choices': Italian doctor tells of struggle against coronavirus [Internet]. *The Independent* Mar 13 [cited 2020 May 9]. Available from: <https://www.independent.co.uk/news/health/coronavirus-italy-hospitals-doctor-lockdown-quarantine-intensive-care-a9401186.html>.
- Liu, K, Chen, Y, Lin, R, Han, K, 2020. Clinical features of COVID-19 in elderly patients: a comparison with young and middle-aged patients. *J. Infect.* [Internet] 0 (0) Mar 27 [cited 2020 May 9]. Available from: <https://www.sciencedirect.com/science/article/pii/S016344532030116X>.
- Lloyd-Sherlock, P, Kalache, A, Kirkwood, T, McKee, M, Prince, M, 2019. WHO's proposal for a decade of healthy ageing. *The Lancet* [Internet] 394 (10215), 2152–2153. Dec 14 [cited 2020 May 9] Available from: [https://www.thelancet.com/journals/lancet/article/PIIS0140-6736\(19\)32522-X/fulltext](https://www.thelancet.com/journals/lancet/article/PIIS0140-6736(19)32522-X/fulltext).
- Martínez-Alcalá, CI, Rosales-Lagarde, A, Alonso-Lavernia, M, de los, Á, Ramírez-Salvador, JÁ, Jiménez-Rodríguez, B, Cepeda-Rebollar, RM, et al., 2018. Digital inclusion in older adults: a comparison between face-to-face and blended digital literacy workshops. *Front. ICT* [Internet] Aug 28 [cited 2020 May 6]; 5. Available from: <https://www.frontiersin.org/articles/10.3389/fict.2018.00021/full>.
- Ministry of Health and Family Welfare, Government of India. 2020. Enabling delivery of essential health services during the covid 19 outbreak: guidance note [Internet]. 2020 Apr 12 [cited 2020 May 10]. Available from: <https://www.mohfw.gov.in/pdf/EssentialservicesduringCOVID19updated0411201.pdf>.
- Morrow-Howell, N, Galucia, N, Swinford, E, 2020. Recovering from the COVID-19 pandemic: a focus on older adults. *J. Aging Soc. Policy* [Internet] 0 (0), 1–9. Apr 26 [cited 2020 May 9] Available from: <https://www.tandfonline.com/doi/full/10.1080/08959420.2020.1759758>.
- National Adult Protective Services Association | National Adult Protective Services Association [Internet]. 2020 [cited 2020 May 10]. Available from: <https://www.napsa-now.org/>.
- Panwar, P, Kumar, R, Belsiyal, X, 2019. Loneliness, sociability and depression in old age home elderly. *International Journal of Community Medicine And Public Health* [Internet] 6 (10), 4331–4335. Sep 26 [cited 2020 May 9] Available from: <https://www.ijcmph.com/index.php/ijcmph/article/view/5212>.
- Parry V. Gender and sexism: What is sexism? [Internet] UNICEF Ireland. 2014 [cited 2020 May 9]. Available from: <https://www.unicef.ie/itsaboutus/cards/unicef-itsaboutus-gender-sexism.pdf>.
- Scott, J., 2020. The economic, geopolitical and health impacts of COVID-19 [Internet].

- World Econ. Forum Mar 6 [cited 2020 May 9]. Available from: <https://www.weforum.org/agenda/2020/03/the-economic-geopolitical-and-health-consequences-of-covid-19/>.
- Singh, A, Misra, N, 2009. Loneliness, depression and sociability in old age. *Ind. Psychiatry J.* [Internet] 18 (1), 51–55. Jan [cited 2020 May 9] Available from: <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3016701/>.
- Singh, AK, Singh, A, Shaikh, A, Singh, R, Misra, A, 2020. Chloroquine and hydroxy-chloroquine in the treatment of COVID-19 with or without diabetes: A systematic search and a narrative review with a special reference to India and other developing countries. *Diabetes Metab. Syndr.* [Internet] 14 (3), 241–246. May [cited 2020 May 9] Available from: <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC7102587/>.
- Sparks, H, 2020. Morbid 'boomer remover' coronavirus meme only makes millennials seem more awful [Internet]. *N. Y. Post* Mar 19 [cited 2020 May 6]. Available from: <https://nypost.com/2020/03/19/morbid-boomer-remover-coronavirus-meme-only-makes-millennials-seem-more-awful/>.
- Sun, J, Deng, X, Chen, X, Huang, J, Huang, S, Li, Y, et al., 2020. Incidence of adverse drug reactions in covid-19 patients in China: an active monitoring study by hospital pharmacovigilance system. *Clin. Pharmacol. Therap.* [Internet] Apr 23 [cited 2020 May 9]; 0(0). Available from: <https://ascpt.onlinelibrary.wiley.com/doi/abs/10.1002/cpt.1866>.
- The World Bank, 2019. Life expectancy at birth, total (years) - India | Data [Internet]. The World Bank 2019 [cited 2020 May 9]. Available from: <https://data.worldbank.org/indicator/SP.DYN.LE00.IN?locations=IN>.
- U.S. Department of Health and Human Services. 2020. Talking with patients about advance directives during the COVID-19 Pandemic [Internet]. 2020 April 6 [cited 2020 May 10]. Available from: <https://files.asprtracie.hhs.gov/documents/talking-with-patients-on-advance-directives-4.6.20.pdf>.
- UN News. 2020. Migrants stranded 'all over the world' and at risk from coronavirus [Internet]. *UN News.* 2020 May 7 [cited 2020 May 10]. Available from: <https://news.un.org/en/story/2020/05/1063482>.
- UN Women, 2020. COVID-19: emerging gender data and why it matters | UN women data hub [Internet]. *UN Women* 2020 May 9 [cited 2020 May 9]. Available from: <https://data.unwomen.org/resources/covid-19-emerging-gender-data-and-why-it-matters>.
- UNFPA. 2020. COVID-19: a gender lens. technical brief [Internet]. *UNFPA.* March 2020 [cited 2020 May 9]. Available from: <https://www.unfpa.org/resources/covid-19-gender-lens>.
- Verity, R, Okell, LC, Dorigatti, I, Winskill, P, Whittaker, C, Imai, N, et al., 2020. Estimates of the severity of coronavirus disease 2019: a model-based analysis. *Lancet Infect. Dis.* [Internet] Mar 30 [cited 2020 May 9]; 0(0). Available from: [https://www.thelancet.com/journals/laninf/article/PIIS1473-3099\(20\)30243-7/abstract](https://www.thelancet.com/journals/laninf/article/PIIS1473-3099(20)30243-7/abstract).
- Vitman, A, Iecovich, E, Alfasi, N, 2014. Ageism and social integration of older adults in their neighborhoods in Israel. *Gerontologist* [Internet] 54 (2), 177–189. Apr 1 [cited 2020 Jul 28] Available from: <https://academic.oup.com/gerontologist/article/54/2/177/634704>.
- Walsh, CA, Olson, JL, Ploeg, J, Lohfeld, L, MacMillan, HL, 2011. Elder abuse and oppression: voices of marginalized elders. *J. Elder Abuse Negl.* [Internet] 23, 17–42. Jan 19 [cited 2020 May 9] Available from: <https://www.tandfonline.com/doi/full/10.1080/08946566.2011.534705>.
- Walsh, K, Scharf, T, Keating, N, 2016. Social exclusion of older persons: a scoping review and conceptual framework. *Eur. J. Ageing* [Internet] 14 (1), 81–98. Oct 11 [cited 2020 May 10]. <https://link.springer.com/article/10.1007/s10433-016-0398-8>.
- Wang, H, Li, T, Barbarino, P, Gauthier, S, Brodaty, H, Molinuevo, JL, et al., 2020. Dementia care during COVID-19. *The Lancet* [Internet] 395 (10231), 1190–1191. Apr 11 [cited 2020 May 10] Available from: [https://www.thelancet.com/journals/lancet/article/PIIS0140-6736\(20\)30755-8/fulltext](https://www.thelancet.com/journals/lancet/article/PIIS0140-6736(20)30755-8/fulltext).
- WHO, 2020. Coronavirus disease (COVID-19) India Situation Report - 26 [Internet]. *World Health Organ* 2020 Jul 26 [cited 2020 Jul 9]. Available from: https://www.who.int/docs/default-source/wrindia/situation-report/india-situation-report-26.pdf?sfvrsn=a292c9c5_2.
- WHO. 2020. Coronavirus disease (COVID-19) situation report -189 [internet] world health organization; 2020 Jul 27 [cited 2020 Jul 28]. Available from: https://www.who.int/docs/default-source/coronaviruse/situation-reports/20200727-covid-19-sitrep-189.pdf?sfvrsn=b93a6913_2.
- World Health Organization, 2015. World report on ageing and health 2015 [Internet]. *World Health Organization.* 2016 [cited 2020 May 9]. Available from: <http://www.who.int/ageing/events/world-report-2015-launch/en/>.
- World Health Organization, 2017. Global strategy and action plan on ageing and health [Internet]. *World Health Organ* 2017 [cited 2020 May 10]. Available from: <https://www.who.int/ageing/WHO-GSAP-2017.pdf?ua=1>.
- World Health Organization, 2020. Gender, equity, human rights [Internet]. *WHO.* World Health Organ. 2020 [cited 2020 May 9]. Available from: <http://www.who.int/gender-equity-rights/en/>.
- World Health Organization, 2020. Statement – Older people are at highest risk from COVID-19, but all must act to prevent community spread [Internet]. *World Health Organization.* 2020 Apr 2 [cited 2020 May 4]. Available from: <http://www.euro.who.int/en/health-topics/health-emergencies/coronavirus-covid-19/statements/statement-older-people-are-at-highest-risk-from-covid-19,-but-all-must-act-to-prevent-community-spread> [accessed on May 10 2020].
- Zubair, M, Norris, M., 2015. Perspectives on ageing, later life and ethnicity: ageing research in ethnic minority contexts. *Ageing Soc.* [Internet] 35 (5), 897–916. May [cited 2020 Jul 29] Available from: <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4396438/a>.