Review Article

Ethics and healthcare in the older adult population

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Abstract

Aging is a natural process involving the loss of several abilities, including cardiovascular, neurologic, musculoskeletal, and social capabilities. In addition to the usual needs, older adults face specific physical and mental challenges. Considering the increase in life expectancy and the large percentage of older adults in most populations, societies should be prepared for the ethical challenges associated with high-demand older generations.

A search was conducted across the three main databases: PubMed, Web of Science, and Scopus. Next, 57 qualitative studies were selected to evaluate the ethical concerns and solutions in providing healthcare and treatment for older generations. Two independent researchers screened and assessed the studies, and the results were reported. Our findings showed that the main concern of policymakers and healthcare planners should be observance of principles such as autonomy, dignity, and fair and balanced distribution of medical resources while not prioritizing others over older adults due to their age. The elderly have specific needs, and considering their increasing prevalence and physical and emotional fragility, countries should be prepared to meet their rapidly growing needs.

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***Received:** 1 May 2023*
***Accepted:** 1 May 2024*
***Published:** 22 Dec 2024*

Citation to this article:
Ayati A, Payab M, Shadman Z, Shojaei A, Asadi M, Sharifi F, Ebrahimpur M, Larijani B. Ethics and healthcare in the older adult population. J Med Ethics Hist Med. 2024; 17: 12.

Keywords: *Older adults; Geriatrics; Disability; Ethics; Medical justice.*

Introduction

Aging has been described as the most concerning medical and demographic issue of our current era by WHO and can be seen more or less in all parts of the world (1). The statistics introduced by the World Health Organization (WHO) show that the population of older adults aged over 60 will increase from 1 billion in 2020 to 1.4 billion in 2040, with 1 out of 6 persons in the population being over this age in 2030 (2). Studies show that the population of people older than 60 has reached almost 17.3% of the US population (3). Evidence shows that in Japan this process has continued, causing an increase in the population of older adults and a decline in the number of active younger people. The same process has been detected in many other developed countries, but perhaps to a lesser degree (4). This increased life expectancy has caused a surged prevalence of various ailments, such as cardiovascular diseases, metabolic disorders, bone diseases, visual, hearing, and neurologic-associated problems (dementia), and disabilities that can cause mortality (5-7). To alleviate the burden of these issues, WHO has introduced a concept entitled "healthy aging", which can be defined as "maintaining the functional ability to enable well-being during this process of increase in age." (1).

A growing number of older adults require healthcare interventions due to the increase in life expectancy and chronic illnesses and are, therefore, becoming the biggest consumers of healthcare services in societies. Therefore, the ethical and legal issues involved in caring for this population must be taken into consideration (8, 9).

In their article, Childress et al. mentioned the new principles of medical ethics concerning older adults and some of the immorality they are subjected to daily. They pointed out how crucial it is for the elderly to receive ethical care and respect. Sadly, such considerations have become less prominent in healthcare over time (10). Childress et al. believe that older people's needs are often ignored to manage the scarcity of medical resources, maintain the balance of healthcare costs, and emphasize the unfairness of discrimination based on patients' age (10). They also declare these problems can be solved or at least alleviated by balanced care and concern with respect for autonomy (10).

Care for the elderly can be ethically challenging due to various issues, including dementia, loneliness, simultaneous use of multiple drugs, and

the near end of life (11). Often, the situation is further complicated by problems other than their medical needs, for instance, low income, high treatment costs, reduced productivity, and the feeling that they are a burden to their family and society (12).

There is a high prevalence of chronic illnesses and cognitive impairments in the elderly population, complicating care needs and raising new ethical concerns. Further discussions and explorations seem necessary to address the inevitable ethical dilemmas arising from this demographic shift and the resulting challenges.

One of the main concerns in clinical research on the elderly, especially those with cognitive impairment and dementia, is that they are underrepresented, partly because of ethical and legal issues associated with involving patients who may be unable to consent (13). The fact that the response of the aged population to various trials and medical research can be different from that of other age groups indicates that if this population is excluded from research, there will be limited or even biased evidence to inform the healthcare system (14). Patients with dementia can be included in research in many ways, but few empirical studies have focused on researchers' perspectives on this topic (15).

Aging is a gradual process rather than a disease. The term elderly does not convey a certain age or specific needs for individualized treatment following medical standards (16). Hence, it is more informative to mention a patient's age. An integral part of medicine is assessing a patient's risk based on potential outcomes and comorbidities, regardless of age (17). Rationing healthcare against any group or age is unethical, as every patient has the right to receive personalized care according to the latest medical standards. Moreover, a comprehensive definition of different life stages, such as youth, middle age, and old age, remains to be achieved (18).

Although considerable ethical work is being conducted on aging, no boundary work has attempted to define the ethics of aging. In this review, we will examine conceptions of what the ethics of aging might mean or include and how they may affect healthcare or research outcomes. This study aims to determine the ethical dilemmas that may arise as clinicians and researchers deal with older adults.

Methods

To conduct this study, we combined a literature review with personal observations. After defining the research question, we extracted the keywords

"ethics," "elderly," "geriatric," and "aging." We searched related databases, including PubMed, Scopus, and Web of Science, and examined those studies that met our inclusion criteria in further detail.

In this study, we attempted to capture a holistic perspective on the ethical issues surrounding older adults' well-being and healthcare. This strategy allowed us to gain a deeper insight into the challenges and opportunities faced by clinicians, researchers, and policymakers in elderly care. This study focused on Studies evaluating patients aged ≥ 60 from various aspects, including the ethical dilemmas in providing care for older adults, the moral implications of aging-related research, and the complexities and considerations associated with healthcare interventions in this population. Studies that included patients younger than 60 or did not focus on the mentioned ethical issues of the elderly were excluded.

Results

A total of 111 articles extracted from the three databases mentioned above had to be removed because they were duplicates, and 550 remained to be examined for the relevance of their titles, objectives, and abstracts to the research topic. To increase the power of the study, two independent researchers (A.A. and ZH. SH) conducted a screening process by examining the titles and abstracts of the studies. As a result, 423 studies (irrelevant articles, letters to the editor, articles in languages other than English, and case report studies) were excluded, and the full text of 77 studies was studied in detail. Finally, 57 observational studies were included (Figure 1).

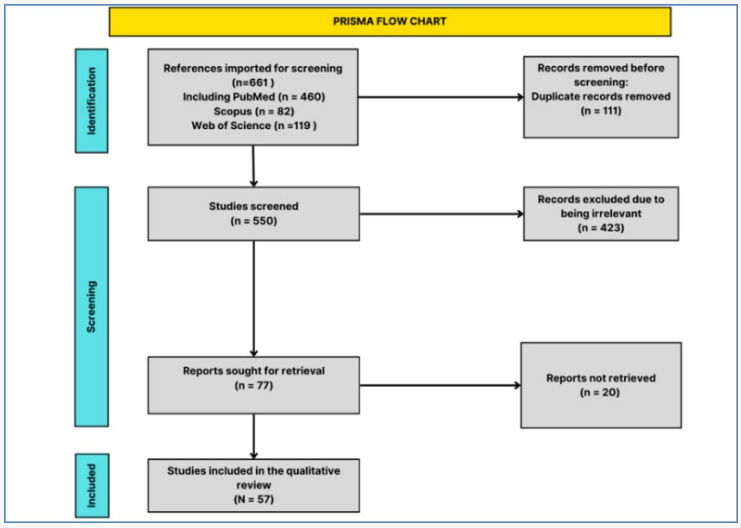

Figure 1: *Flowchart shows the different steps of selecting studies in this review*

Discussion

The Importance of Aging

The United Nations defines the elderly population as "individuals over 60", but a comprehensive definition remains to be achieved. Besides the chronological age, various other references are employed in defining the elderly population, including biological, psychological, and social characteristics (19, 20).

Aging has become one of the main health, economic, and social concerns of our century (1). Higher life expectancy is a major contributor to the rising elderly population that also increases the productive years of an individual's life. However, the final years of an elderly person's life are usually associated with disabilities as well as an increased risk of various cardiovascular (21), neurologic, malignant (22) and musculoskeletal diseases (23). Unfortunately, these problems appear to remain constant regardless of the duration of life.

Age-related comorbidities, lack of independence, isolation, and end-of-life situations are only a few of the conditions that make the elderly and the healthcare system susceptible to ethical challenges. Thus, careful attention to ethical considerations is of great importance for healthcare professionals interacting with elderly patients.

The Best Definition of Aging

Aging encompasses physiological changes from adulthood to death, involving a decline in biological functions accompanied by psychological, behavioral, and other changes (24). While some of these changes are conspicuous, others are subtle. With advancing age come new physical, social and emotional challenges, influencing cognition and emotion and impacting subjective well-being, social relationships, decision-making, and self-control (25). Although most older adults report good mental health and maybe even fewer issues than other age groups, approximately one in four will experience mental health problems such as depression, anxiety, schizophrenia, or dementia (26).

Offering an exact definition for aging has been the subject of controversial debate in recent years. One of the main issues in this regard is whether to consider aging a disease. (27). There are two major opposing concepts regarding the definition of aging. Historically, aging has been considered a progressive, universal, and inevitable natural state in all individuals. Other sources regard aging as a universal phenomenon affecting all organisms that

cannot be considered dysfunction or abnormality; therefore, aging can be viewed as a natural state (28-30).

On the other hand, many scholars have vehemently opposed the notion of aging as a natural state. They argue that considering age as universal, inevitable, or natural is insufficient to discard it as a disease. This concept is also regarded as the "medicalization of aging." (31). In this theory, aging can be considered a side effect of natural selection, causing dysfunction in individuals as they age (32, 33).

The Social Outcomes of Aging

Improving social contact becomes challenging as friends and family members pass away, leading individuals to withdraw from familiar people and environments. Reconciliation with the past involves resolving conflicts, accepting losses, and seeking closure. Coping with changes in physical appearance can be difficult, too, and shifts in roles and tasks may make individuals feel that they have less to contribute.

Health Challenges Faced by the Elderly

The elderly population is vulnerable to various age-related medical conditions (34). These conditions include heart disease, stroke, Alzheimer's disease and Chronic pain (35). The presence of multiple chronic disorders in the elderly is known as "multimorbidity." (36). The progressive decline in physiologic reserve and resistance across several systems caused by aging and multi-morbidities is regarded as "frailty." (37). These patients are at significant risk of adverse consequences such as falls, hospitalizations, and death. Below are several risk factors that have been known to contribute to multimorbidity and frailty in the elderly.

Chronic Physical and Mental Disorders

Prolonged conditions such as heart disease, stroke, Alzheimer's disease, and chronic pain are among the leading causes of frailty and its complications in the elderly (35). To address these conditions, various medications are often prescribed, which make the elderly susceptible to different side effects (38). Unfortunately, the side effects of these medications are other notable contributors to frailty.

As these conditions progress, individuals suffer several losses, for instance, their independence, work, income, self-worth, mobility, and flexibility. These losses prevent the elderly from receiving appropriate care, exposing them to additional disease burden (39). Other factors that contribute to frailty in the elderly include social isolation, lack of education, and reduced physical activities (34).

Major Ethical Principles in Geriatric Healthcare

The aging process significantly affects the physical and mental health of the elderly (40), and therefore, an increasing portion of patients within the health system are comprised of the older population. Several ethical principles should be addressed in interactions with these patients. The basic ethical principles are common in all branches of medicine, including geriatric medicine. However, unique circumstances in the care of elderly patients require further consideration of several universal ethical standards, which will be discussed below.

1) Beneficence

Beneficence is one of the main medical ethics principles with many different definitions in diverse literature, but it is universally considered the core component of ethics. It is the principle that we must observe in order to promote what is "good" while allowing differences in compassion, kindness, value or generosity, and charity to individual patients. For all practical purposes, this principle applies to what is good, kind, and charitable (41). It implies that the medical team's actions should benefit the patient. However, complying with this principle can be challenging, especially in the case of the elderly (42). Considering that older adults are not always competent enough to make the best medical decisions for themselves, the medical team may need to make that decision against the patient's will. Unfortunately, making such decisions often means breaching patient autonomy, which is a challenging situation with very delicate legal and ethical considerations. (43, 44).

2) Non-Maleficence

This principle prohibits healthcare workers from harming their patients. However, healthcare providers face several challenges in upholding this principle, including balancing the risks and benefits of treatments, avoiding unintentional harm (such as adverse drug reactions or medical errors), addressing patient preferences, recognizing and reporting harm, and addressing systemic issues that contribute to harm.

3) Futility of Treatment

This controversial principle involves withdrawal treatment when the evidence suggests that it is not beneficial for the patient. Such situations are especially prevalent in the case of the elderly and end-of-life treatments (45). Ethics laws in this regard differ worldwide, with most states prohibiting treatment discontinuation in end-of-life situations (46). Appropriate communication between healthcare workers and patients or their surrogates is crucial in achieving the best treatment plan.

4) Confidentiality

Protecting patient information is one of the core duties of health professionals. It requires that health-care providers keep patient information confidential until the patient consents to release it. Many elderly patients lack independence and need help with their everyday activities, decision-making and healthcare. Thus, there is a great need to share vital diagnoses and treatment information with their carers while complying with the principle of confidentiality.

One challenge in this regard pertains to the cognitive and functional decline that often accompanies aging. This can make it difficult for health-care providers to obtain informed consent and maintain confidentiality.

Another challenge is related to the involvement of family members or caregivers in the care of elderly patients. These individuals may need to be informed about the patient's medical condition and treatment plan, but healthcare providers must balance the patient's right to privacy with the family's need for information.

Elderly patients may also face unique social and cultural pressures that impact their decision-making around confidentiality. For example, they may be more likely to prioritize family obligations over their own privacy or be hesitant to disclose sensitive information due to fear of stigmatization or discrimination. Healthcare providers must be sensitive to these issues and work to create a safe and supportive environment that encourages open communication and respects the patient's autonomy.

Finally, advances in technology and electronic health records have created new challenges to confidentiality in the care of elderly patients. Multiple health-care providers can easily access electronic health records, increasing the risk of unauthorized disclosure of patient information. Additionally, elderly patients may be less familiar with technology and may not understand the potential risks of sharing personal information online.

5) Autonomy and Informed Consent

This principle safeguards the right of patients to receive information, make choices, and consent to their treatments. Healthcare workers face many challenges in informing elderly patients and their families about their diagnoses and treatment plans and respecting their decisions. In cases when the patient is unable to make decisions, especially due to cognitive disorders common among the elderly, delicate ethical considerations are essential for the required decision-making. These considerations include assessing cognitive decline, appointing surrogate decision-makers, balancing autonomy

and beneficence, and establishing special communications. The principle of autonomy becomes controversial in various situations that arise in connection with the treatment of the elderly, such as treatment refusals, forced nutrition, pain management, genetic testing, and euthanasia. For example, patients with mental capacity have the right to refuse treatment, forced nutrition, or even pain management, even if their decision results in death. However, suppose there is suspicion regarding the mental capacity of an elderly patient. In that case, the right to decision-making might be given to the family, surrogate decision-maker, physician, or even court (47). On the other hand, euthanasia or physician-assisted suicide has been a very controversial issue in many parts of the world, and it is done legally only in a few countries; there are also alternative methods, such as stopping treatment, which can result in death (48). Although these options have been discussed for many years, they have never become legal in Iran (49).

6) The Physician-Patient Relationship

An appropriate physician-patient relationship requires health-care workers to perform their treatments dignified and considerate. This principle is not limited to patient consent or privacy and necessitates further considerations, especially when treating elderly patients. Studies have associated good physician-patient rapport with improved patient satisfaction, treatment compliance, and better overall outcomes (50, 51). When patients feel that their physician listens to them, understands their concerns, and communicates effectively, they are more likely to be satisfied with their care.

Improved patient satisfaction can lead to better treatment compliance, which can, in turn, lead to better overall outcomes. A good physician-patient rapport results in improved communication and trust between the two parties. Patients who trust their physician are more likely to disclose sensitive information and be honest about their symptoms, which helps the physician make an accurate diagnosis and develop an effective treatment plan. This relationship is considerably more critical when communicating with elderly patients due to their mentioned susceptibilities and other concerns such as diagnosis, prognosis, treatment choices, and end-of-life discussions. There are established guidelines or recommendations for physician-patient communication that should be observed in these situations. These guidelines are designed to improve communication between physicians and elderly patients, promote patient-centered care, and enhance patient outcomes (52-55).

7) Truth-Telling

Another essential ethical principle derived from the autonomy principle is disclosing different aspects of diagnosis, prognosis, and treatment to the patient. This principle is strongly debated in geriatric patients, especially those with terminal illnesses or dementia (56). Studies have suggested that a majority of elderly patients prefer full disclosure of their diagnosis regardless of their prognosis (57, 58). However, the possible effects of transparency in poor prognosis disorders on patient outcomes remain to be understood. Bad reactions such as depression or suicidal thoughts have raised the concern that truth-telling could compromise the principle of beneficence, especially in elderly patients with poor prognoses (59, 60).

8) Justice

This principle requires healthcare workers to treat patients equally regardless of age and status. Geriatric patients are prone to various forms of physical, emotional, and psychological abuse in the course of their treatment. Discrimination, abusive confrontations, and aggressive behaviors are some notable injustices demanding major ethical considerations. (61-64). Therefore, healthcare workers should be mindful of possible injustices regarding healthcare services for elderly patients and try to prevent them.

One dilemma in this respect is whether to prioritize the treatment of elderly patients over younger patients. While the former may be in greater need of healthcare services, the latter have a longer life expectancy and would benefit more from certain treatments. Healthcare providers must balance the ethical principles of beneficence (doing good) and distributive justice (fair distribution of resources) when making decisions about resource allocation (65). As an example, during the COVID-19 crisis, many patients of various ages needed specific medical equipment such as surgical devices or rooms, ICU beds and limited-resource medications (66). In prioritizing patients against each other, several factors, including age, need to be considered; however, age should never be the only criterion for depriving a person of treatment (67).

Another ethical dilemma is prioritizing the treatment of elderly patients with higher social values (such as prominent community members or public figures) over those with lower social values. This can lead to potential injustices in the treatment of elderly patients and conflicts with the ethical principle of non-maleficence (avoiding harm).

Additionally, there are concerns about access to healthcare services in the case of elderly patients

who may be disadvantaged due to socioeconomic factors, such as poverty or lack of access to healthcare services. This can lead to potential injustices in the distribution of healthcare resources and is in conflict with the ethical principle of distributive justice, which might be seen in any age range, including children, youth, and the elderly (68).

To address these ethical dilemmas, healthcare providers must prioritize patient-centered care that considers the individual needs and values of elderly patients. This may involve developing individualized treatment plans prioritizing the patients' well-being and quality of life rather than simply treating their medical conditions. Healthcare providers must also address systemic issues contributing to healthcare disparities among elderly patients, such as inadequate funding or lack of access to healthcare services in certain geographic areas. For example, it has been shown that those living in poor or rural areas far from medical facilities have a much higher risk of mortality due to ischemic heart disease. This happens mainly because of a lack of appropriate transport vehicles and being far from medical centers with sufficient medications, expertise, and available physicians and nurses. (21, 69).

Conclusion

Ethics plays a crucial role in the treatment of elderly patients. As the aging population grows, healthcare professionals must prioritize ethical considerations in caring for older adults.

Elderly patients are often vulnerable and may have complex medical needs, presenting unique ethical challenges for healthcare professionals. Ethical considerations that are particularly important for this age group include issues related to informed consent, end-of-life decision-making, and the allocation of limited health resources. Healthcare professionals must navigate these challenges with sensitivity and compassion while upholding the principles of beneficence, non-maleficence, and justice.

Moreover, ethical considerations in the treatment of elderly patients extend beyond medical decisions and must also include social and environmental factors that impact their health. By prioritizing ethics, healthcare professionals can ensure that older adults receive compassionate, patient-centered care that upholds their dignity, autonomy, and well-being. It is the medical community's responsibility to continuously reflect on and evaluate ethical practices in the care of

elderly patients to ensure that they receive the highest-quality care possible.

Acknowledgements and funding

The study did not receive any funding.

Conflict of Interests

There are no competing interests to declare.

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