Patient prioritization in medical emergencies: an ethical analysis

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Summary

Objective: To identify and analyze, in the light of ethical considerations, the choices and justifications of public health professionals in hypothetical situations of patient prioritization in circumstances of limited resources during emergency medical care. **Methods:** Qualitative and quantitative study carried out through interviews with 80 public health professionals, graduate students (MSc and PhD students) in public health who were faced with hypothetical situations involving the criteria of gender, age and responsibility, asked to choose between alternatives that referred to the existence of people, equally submitted to life-threatening situations, who needed care in an emergency department. **Results:** The choices prioritized children, young individuals, women and married women, with decision-making invoking the ethical principles of vulnerability, social utility and equity. **Conclusion:** The study shows a clear tendency to justify the choices that were made guided by utilitarian ethics.

Keywords: Bioethics; patient selection; equity in resource allocation; resource allocation; institutional ethics.

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Introduction

The daily routine of health services gives rise to many ethical problems for health professionals due to lack of resources to meet patients' needs. Choices have to be made in the hospital environment, taking into account moral values and principles; these are ethical decisions as they affect individuals, institutions and the community.

Ethical decisions involve individual selection of beneficiaries in situations where the health professional can identify who will benefit from the priorities established in the selection of patients for insufficient beds in hospitals, intensive care and choosing those who will receive scarce organs for transplantation[1]. The bioethical reflection on the theme is guided by the ethical principle of distributive justice. This is an inter-subjective principle which refers to relations between the self and others, opening the individual to the community. It is related to the distribution of goods, products or services and/or fair access to resources[2,3].

A key question can be raised: "What are the guiding ethical criteria of a good and fair prioritization of health care in a situation of limited resources?" The health professional must understand that prioritization is carried out through hierarchical choices among available alternatives, within the resource limitations of a health system[4].

Thus, considering the relevance and importance of the subject, this research was developed in the light of ethical references in order to identify and analyze the choices and justifications of public health professionals in hypothetical situations of patient prioritization in situations of resource scarcity during medical emergency care.

Methods

A qualitative and quantitative exploratory research was conducted through interviews with 80 Masters and PhD students of the postgraduate course of the Escola de Saúde Pública, Universidade de São Paulo (FSP-USP), enrolled between 2009 and 2011. This group was chosen because it comprises individuals who work with public health and constitute influential potential social actors due to their practice-oriented training, management or teaching; however, practical decisions for selecting patients in emergency care are the responsibility of medical professionals.

Participants were chosen by equiprobabilistic simple random sampling, totaling 30% of the students of the period from lists provided by the Student Services Department of the FSP-USP, following the simple random technique, using a random or equiprobable number table. The following personal characteristics were obtained from each research subject: gender, age group (20-40 years and 41-60 years), training (exact, human or biological sciences) and current or previous work experience in hospital health services.

Data collection was performed after the submission of the structured individualized form containing ten hypothetical situations, involving ethical dilemmas in the prioritization of scarce resources in medical emergency care and the respondents were asked to choose between two alternatives provided. The situation statements referred to the existence of two individuals in similar life-threatening situations that needed to be hospitalized. However, there was only one bed available at the institution. The patients had been assessed by the physicians as clinical cases of equal severity. In each situation the two patients involved were distinguished only by a single criterion: gender, age or responsibility, here understood as the dependence of others upon the beneficiary: family or community[5,6].

Six of the situations are discussed in this study:

1. Seven-year-old child and 65-year-old elderly individual, victims of a car accident (involved criterion = age).
2. One-year-old child and seven-year-old child, victims of a car accident (involved criterion = age).
3. 30-year-old man and 30-year-old woman, victims of a car accident. (involved criterion = gender).
4. 25-year-old man and 65-year-old man, victims of a car accident (involved criterion = age).
5. Mother of three young children and mother of one young child, both with bronchopneumonia (involved criterion = responsibility).
6. Single woman and married woman, both with bronchopneumonia (involved criterion = responsibility).

Each respondent was asked to justify/rationalize his/her two choices. The first was asked to justify the choice in situation number 1, the second respondent, situation 2, and so on. The responses were recorded and transcribed by the interviewer, also a PhD student at FSP-USP.

The responses to the six questions in the two alternatives shown and the category of "no choice" were tabulated. The results were submitted to treatment and statistical analysis of association (chi-square and Fischer's exact test), regarding the personal characteristics of respondents, considering as significant differences ≤ 0.05 . The responses were tabulated on the Statistical Package for the Social Sciences – SPSS software.

Qualitative data analysis was performed by content analysis procedures and the interpretation of the collected material followed the teachings of Bardin[7]. From the interviews, the justifications for the choices that were made were identified, analyzing them based on the ethical perspectives described below. Some reasons are shown in the text as examples.

The presence of identifying elements of teleological and deontological ethical perspectives of decision-making were searched for. The teleological perspectives ethically assess actions regarding their rightness or

wrongness, depending on whether their consequences are good or bad, fair or unfair[2]. Among these is the perspective of utilitarian ethics, which considers that the ethical principle guiding laws and social institutions should be that of the social utility, which has as its goal the greatest happiness or well-being for the greatest possible number of people, i.e., the maximization of preferences or benefits. Its paradigm is, therefore, the reach for the "greatest well-being for the greatest possible number of people", i.e., the maximization of well-being[8,9].

In spite of the difficulties to conceptualize what is "well-being" when there are two or more options, according to classical utilitarianism, the decision maker should weigh each of them and choose the one that would bring more benefits and that eliminated, prevented or minimized the damage, suffering and pain, or whatever else is considered to be opposed to "good", to the "happiness" of the greatest number of people involved[10].

Reflecting on the principle of social utility for health care prioritizing decisions, it could be said that the correct and fair choice would be the one that would provide better health, less suffering or pain to the greatest number of people involved[11].

As for deontological ethical principles, they are founded on the notion of duty. They are opposed to teleological theories, as it does not matter if the consequences are morally good or bad, because some choices are prohibited and others should be made. That is, for deontologists, what makes a good choice is the conformity with a moral norm which exists only to be obeyed by the moral agents, such as respecting human dignity, promoting equity and protecting the vulnerable[12,13] .

Among the deontological theories, the theory of *justice as equity* is highlighted, developed in the 1970s by the American philosopher John Rawls, who argues that in cases of conflicts of interests for resources, priority should be given to the disadvantaged. In the health care field, following Rawls's thought, the underprivileged could be evaluated by their social and economic status, health status and severity, and personal vulnerability or fragility[14].

This research followed the rules and guidelines of Resolution 196/96 CNS/MS and was approved by the IRB of the Faculdade de Saúde Pública da USP. The study subjects signed an informed consent and were informed about the character of the research, its objectives, the procedures to be observed and the possibility of refusal occurred without any institutional sanctions. To prevent psychological and social risks the anonymity of all participants was preserved and the interviews were numbered sequentially.

The results shown in this article constitute part of the study: "Decision-making involving the allocation of scarce resources in health care", which was funded by the CNPq, Process No. 305066/2008-0.

Results

Characteristics of the interviewed group

44 women (55%) and 36 men (45%) were interviewed, of which 69 (86.3%) were aged 20-40 years and 11 (13.8%), 41-60 years, characterizing a predominantly female and young sample (22-57 years). Of the respondents, 71 (88.8%) had a degree in biological sciences, six (7.5%) were from the field of human sciences and three (3.8%) from the field of exact sciences. As for previous work in a hospital environment, only 30 (37.5%) had had hospital experience. There were no statistically significant differences in the choices evaluated by the variables: gender, age or previous experience in hospital work in any of the six situations presented to respondents.

Age

As for the situation that involved a seven-year-old child and a 65-year-old elderly individual, both victims of a car accident, 68 (85%) of the respondents chose the child and 12 (15%) the elderly individual, with no absences of choice. The predominant justifications were based on social utility and maximization of benefits. The choice of the child was due to the potential number of years to be lived, "Because the child still has long to live and the other individual, being elderly, has already enjoyed life." "Because the child would live longer." "Using the criterion of years to live."

Justifications also used the notion of social utility, minimizing the pain and suffering: "The impact is greater for the family in the case of the child." And, referring to the collective interest: "Brazil chose the capitalist model; we need, therefore, labor, productive life, there are no resources to meet all needs, we need young people, births to maintain social security."

Deontological justifications were the minority, such as: "Because it is a child. Children should always be prioritized," or "The child, as he/she is more vulnerable." Vulnerability was also used as an argument to choose the elderly "The elderly, as he/she is the most vulnerable."

As for the situation that had two children, a one-year-old and a seven-year-old, both victims of car accident, there was statistical equilibrium, as 37 (46.3%) chose the first option and 43 (53.8%) chose the older child, with no absences of choice. Utilitarian options for the one-year-old recall the number of years to be lived: "The one-year-old has not experienced anything; we should give him/her a chance." "Because in terms of years of life lost, it is greater for the one-year-old." "Because he/she has more possibilities, it is a life with more chances, more likely to live."

Deontological motivations, based on the notion of protecting the fragile person were also cited: "The one-year-old should be saved because he/she is younger, more fragile."

However, the choice prioritizing the seven-year-old child is of utilitarian nature: "I think the seven-year-old child should be saved, because he/she already has a larger social network, a larger history; also because he/she is less fragile, he/she might have a better chance." In choosing between a 25-year-old man and a 65- year-old man, also victims of a car accident, the majority of respondents, 63 (78.8%) chose the young, while 17 (21.3%) chose the elderly. Productivity was the justification given for choosing the younger man: "The chance of years of life is higher for the 25-year-old." "Because the 25-year-old is capable of building a productive life." "He's stronger, brings more progress." "25 years is in the age range of a productive individual and very likely to be the breadwinner."

Among the minority choices in favor of the elderly, we found the motivation due to the vulnerability: "I tend to think first of senior citizens," "The 65-year-old needs more help."

It must be emphasized that one of the justifications found brought the ethics of proximity: "Because that is the age of my father."

Gender

Regarding the question that opposed a 30-year-old man and a woman of the same age, victims of a car accident, most of the respondents, 67 (83.8%), chose the woman. Only 12 (15%) chose the man and one respondent decided not to choose.

Among the responses given to justify choosing the man, technical arguments stand out such as the severity potential of the case: "Because in general the most serious accidents happen to men." This statement is related to equity as the severity of the case would lead to more suffering or pain. Additionally, justifications for choosing the man were based on social responsibility: "Perhaps the man is the head of the family."

When choosing women, there was a greater variety of reasons. Utilitarian orientation, by productivity, "Still following the logic of productivity and life expectancy, we know that women live longer, take better care of themselves and thus the impact on the health system." Social responsibility: "Because women can have children and men cannot", "A woman might have children to raise," "She might have children. She supports her family in the emotional sense."

The notion of vulnerability was recalled: "Because women are more vulnerable," "Women take better care of their health than men and are also more fragile." There was also the decision made by ethics of proximity, "Because I am a woman too."

Responsibility

Regarding the question that had two women, both with bronchopneumonia, one of whom had three small children and the other one small child, the first was chosen by 72 (90%), while the other was chosen by 7 (8.8%). One respondent decided not to choose.

The responses were primarily utilitarian: "Because three children need their mother more than the single child," "Because the social benefit is greater, thinking about parenting," "I thought of cost-effectiveness. Because there are three kids to be raised, and it is easier to find someone in the family to care for only one than three."

The question that presented the choice between two women, one married and one single, both with bronchopneumonia, the married one was the favorite with 56 (70%) of the choices and the single was prioritized by 20 (25%). This item had the highest number of non-choices, by a total of four (5%) respondents.

Family responsibility was the prevalent justification for the choice of the married woman: "Because I imagine she has children and more people depend on her", "She is more likely to have children", "Because she has a husband and might have children," "It gives the impression that the social loss is greater in the case of the married one due to the assumption that she has more responsibility. The ethics of proximity was also recalled: "Because I'm married."

Discussion

The use of hypothetical situations has been shown, as a methodological procedure, to be useful for the recognition of values and criteria of the general population with respect to situations where resources should be prioritized[4,15,16]. In this study, these hypothetical situations were applied to professionals in the public health field. The results for most of the questions presented, except when confronting the 25-year-old and the 65-year-old men, were similar to the findings by Fortes[4], who examined criteria for patient selection in medical emergency care by 395 lay people in the city of Diadema, SP, Brazil. Lay people chose mostly the elderly, guided by the principle of equity, prioritizing those regarded as the most fragile and vulnerable. That was not observed in the present study, where young people were prioritized, guided by values of productivity and social utility.

Regarding age, it can be used both as a positive or negative factor for the prioritization of limited resources. The Statute on Children and Adolescents of 1990 establishes that medical care must be provided to children and adolescents through the public health system, they will take precedence to receive protection and relief in all circumstances and will take precedence of care from public services or services of public importance.

Likewise, the Statute of the Elderly of 2003 emphasizes that the elderly have guarantee of immediate and individualized service at public agencies and private providers of services to the population. That is, there is legal basis for

the prioritization of these age groups in the distribution of resources in health care services.

However, if both legal norms claim the priority of children, adolescents and the elderly, how to morally prioritize in a situation involving simultaneously two or three of these age groups? In the present research children and young people were prioritized in relation to the elderly. In this sense, there are defenders of the thesis that the death of a teenager is worse than that of a child under two years, thanks to the social investment and the development of the adolescent personality and also, that an adolescent's death is more tragic than the death of an 80-year-old individual[17].

The results demonstrate the difficulty to establish priorities among children, as in the comparison of children aged one and seven years, due to the symbolic value of the child. However, a utilitarian tendency in most responses was also observed.

The choice of the majority of respondents for the young versus the elderly also leads us to reflect on those who advocate a criterion of *intergenerational equity*, which would aim to give all people an equal opportunity to live all stages of life. Thus, children and adolescents would be prioritized over the young, these over adults, and the latter over the elderly. Proponents of this thesis claim that this method would not unevenly and unjustly value people for different characteristics but it would use the principle of equality, as it would give everyone the chance to live all stages of human life[18].

However, the age criterion should be used with caution when prioritizing resources, as it is based solely on statistics, mathematical means or medians, which do not take individual circumstances into account. Different is the argument that, under certain circumstances, age can be taken as an objective criterion. It would be the case that assesses that, by being very old, a person would not be able to undergo a particular clinical, medical or surgical procedure, i.e., there would be no clinical efficacy and a resource that is scarce would be wasted. This exemplifies why the principle of justice as equity should not be uncritically applied, without prudent evaluation, because it could consider an elderly individual in these conditions as being the most disadvantaged and thus the one to be prioritized[19,20].

With respect to the gender criterion, most choices clearly prioritizing women, rely mainly on a supposed vulnerability when confronted by men; women should be protected in accordance with the concept of justice as equity. Despite the polysemy of the term "vulnerability", which can be confused with the notion of weakness and fragility, the idea of vulnerability is used, in accordance with important bioethicists such as Neves[21] and Anjos[22], as an existing dimension in every human being, understood as the susceptibility to be wounded, as a human condition at the same time persistent and occurring in a given situation. Thus, the idea of finding a vulnerable individual or group may provoke the moral agents' feelings of compassion or sympathy[23]. Analyzing the meaning of the statements given by respondents, this appears to have been the main interpretation invoked.

However, these findings coexist with an utilitarian tendency, based on maximizing social responsibility, to invoke the possibility of exercising the maternal role and responsibility for home care and children.

Lemos[5] states that these special responsibilities outweigh the social value, being related to the existence of dependents and that it is an essentially utilitarian criterion. Respondents felt that family responsibility was a valid criterion to discriminate between people who needed care, prioritizing the married woman for their possible benefit to others - husband or children.

Although an unusual choice, the justifications that showed the notion of an ethics of proximity, choosing an alternative in which they recognize themselves ("Because I'm a woman") or someone close to them (Because that is my father's age) must be noted. When guided by an ethics of proximity, one is concerned, sympathetic, trying to take care of those who are close to them, due to family, social or religious reasons or due to belonging to a community. This choice also constitutes utilitarian ethics, which tends to maximize personal satisfaction not necessarily considering that of others[24,25].

The study showed clear trends, made evident by the responses in most of the questions presented, towards justifications and predominantly utilitarian motivations. Some of the answers show an attempt to find technical justifications, as if they were not loaded with ethical values.

Conclusion

The decision to prioritize resources is an ethical one and must take into account, as the Spanish bioethicist Diego Gracia[26] defends, facts, principles, values, emotions, ideas and beliefs, given that uncertainty is intrinsic to the concrete moral duties.

The position of health professionals, faced with conflicts regarding the allocation of resources in the presence of identifiable individuals, is not convenient; on the contrary, it is difficult and even considered undesirable by medical professionals. For their fundamental ethical obligation, since Hippocratic times, in the relationship with their patients, is to act for the well-being of the latter, not to cause damage or loss; nowadays, the obligation to ensure the expression of patient autonomy is also demanded.

The study showed clear trends, made evident by the answers of respondents in most of the questions presented, towards predominantly utilitarian justifications and motivations. This perspective's ethics is based on the notion of good and not of right, thus, it should promote good

consequences, aimed more towards the collective than the individual, seeking to meet the principle of social utility by choosing alternatives that aim to maximize the benefits or minimize the alleged misdeeds - from the viewpoint of social responsibility, family or load of emotions or feelings[27,28].

Finally, in a society characterized by the diversity of moral values, it is necessary that decisions are clear so that individuals can trust health services and professionals. Therefore, it is important that physicians are aware of the representations and values in the society, as expressed by professionals working in the field of public health, so they can contribute to the decision-making in situations where resources are scarce.

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