

Paramedics' attitudes toward elderly patients' self-determination in emergency assignments: a US context

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Abstract

Purpose – With aging, the risk of requiring emergency care increases. Elderly patients who need Emergency Medical Services (EMS) are often vulnerable and dependent, especially when their decision-making ability is reduced, which may intensify the risk of important ethical values being violated. Studies about paramedics' views on elderly people's self-determination within EMS settings are scarce. The aim of this study was to explore the attitudes and perceptions of paramedics in a US context regarding self-determination in elderly patients who need emergency care provided by EMS.

Design/methodology/approach – The study had an exploratory design, and data were collected using a Delphi technique. A panel of experts consisting of US paramedics was recruited to answer a questionnaire sent out in three rounds. The questionnaire comprised 108 items, derived from a Swedish study on the same topic, rated with a five-point Likert scale ranging from agree to disagree with a predetermined consensus level of 70%.

Findings – In total 21 experts agreed to participate, 15 completed all three rounds, leaving a total response rate of 71%. Finally, 87 out of 108 items reached consensus, of which 60 were "agree" and 27 were "disagree."

Originality/value – The paramedic–patient relationship is a core in assessing and handling ethical challenges within an advanced practice influenced by the paramedics' educational level and/or the patient's physical/

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mental status. Within a “find it fix it” modus operandi, there is a need to increase paramedics’ competence in understanding and handling advanced ethical challenges in relation to ethical values such as autonomy and self-determination in elderly patients.

Keywords Elderly, Ethics, Emergency Medical Services, Paramedic, Self-determination, Delphi technique

Paper type Research paper

Background

In the USA, people aged 65 and older numbered 54.1m in 2019, representing 16% of the population ([The Administration for Community Living, 2022](#)). The number of older Americans has increased by 14.4m (36%) since 2009, than an increase of 3% for the under-65 population. More than half of the elderly population in 2016 were aged 65–74 years old ([Roberts et al., 2018](#)). The population between 75 and 84 was around 29%, more than double the number and proportion for those 85 years of age and older. Increased use of Emergency Medical Services (EMS) in the USA is associated with the growth in the aging population ([Lowthian et al., 2011](#)). Furthermore, the number of elderly people (>60 years of age) is expected to increase worldwide with 12–22% between 2015 and 2050 ([WHO, 2022](#)), placing a further burden on EMS globally. In Sweden, a recent study indicated a considerable increase in EMS assignments involving patients between 70 and 89 years of age, with 60% of the cases attended by EMS involving patients >70 years of age ([Hjalmarsson et al., 2020](#)).

Emergency care for elderly people may involve paramedics assessing and treating non-specific conditions as well as more typical case types such as pneumonia, malaise, fatigue, heart failure, atrial fibrillation and non-specific abdominal pain ([Ukkonen et al., 2019](#)). More than 30% of patients 80 years of age or older are at risk of requiring emergency care. Elderly patients in ambulance care experience that their own abilities, including knowledge, physical capacity, capabilities and limitations, are scrutinized to assess the extent of professional help needed ([Hjalmarsson et al., 2023](#)).

Paramedicine, like other health disciplines, aims to respect people’s self-determination. This may be complicated in EMS situations either due to not knowing the patient or having little to no access to their medical history beforehand. Like other medically dominated areas of care, ethical problems in paramedicine are often analyzed based on the principles of biomedical ethics proposed by Beauchamp and Childress, that is, respect for autonomy, beneficence, justice and non-maleficence. The principles constitute general values that form the basis of a common morality. At the same time, the principles can come into conflict with each other in real clinical situations and thus be described as value conflicts. Nor is it usually possible to start from an *a priori* ranking of values to address all real-world complexity ([Beauchamp and Childress, 2019](#)). It has been argued in favor of specification over intuitive balancing or deductive subsumption to resolve conflicts between principles or norms. Central to the role of specification is that it indicates the relationship between two norms: an initial one and a modified and more specific one that will be used in practice. Specification can therefore sometimes resolve conflicts by filling in, and thus changing, the set of norms ([Richardson, 2000](#)). In the National EMS Education Standard, ethical issues are mentioned as part of paramedic training to improve the health of patients ([Nation Highway Traffic Safety Administration, 2021](#)). From an overall point of view, ethical issues are, in the education standards, related to ethical principles/moral obligations and ethical tests and decision-making. More explicitly ethical aspects are highlighted in areas such as providing pain management and resuscitation in cardiac arrest.

In relation to quality of life, self-determination in elderly people is found to have a positive effect ([Bölenius et al., 2019](#)). Likewise, the elderly person’s ability to independently manage their life without support is beneficial ([Johannesen et al., 2004](#)). However, requiring the attendance of EMS may lead to feelings of dependency where responsibility for the situation is handed over to the paramedics ([Holmberg et al., 2014](#)). Thus, independence may be counteracted, violating one’s self-determination. Despite the impact on independence and self-determination, paramedics taking responsibility for care may have both positive effects. From

the EMS professionals' perspective, this means balancing a professional and personal role, providing unique, customized care to each individual patient (Holmberg *et al.*, 2016; Holmberg and Fagerberg, 2010). However, certain conditions must be met to exercise self-determination. Elderly patients need to be consulted, feel safe in relationships and be able to influence decisions and feel involved (Ekelund *et al.*, 2014a, b).

Studies on self-determination in elderly patients within the EMS setting are scarce. However, through self-determination, when patients refuse the care offered by paramedics, an ethical conflict in EMS may occur (Sandman and Nordmark, 2006). Bremer and Holmberg (2020) found that several ethical conflicts in EMS originated from problems related to the patient's self-determination. Such ethical conflicts refer to the paramedics' inadequate access to the patient's narrative, uncertainty regarding the patient's decision-making ability and conflicting assessments of the patient's best interest.

In acute situations, elderly patients' decision-making capacity may be reduced and sometimes completely lacking, with consequences for their autonomy, integrity and dignity. Here, the paramedics are denoted to some form of deputy decision-making, often with the support of information from significant others. Occasionally decisions are entirely based on the EMS team's independent assessment of what is believed to benefit the patient, based on the observed medical symptoms and available information (Bremer *et al.*, 2012; Bremer and Holmberg, 2020; Hagiwara *et al.*, 2013; Holmberg *et al.*, 2016).

Patients who need EMS are often vulnerable and dependent, especially when their decision-making ability is reduced, which may intensify the risk of important ethical values being violated. In urgent situations, elderly patients may have an impaired decision-making ability or reduced capacity to participate in decisions concerning their own care. This makes it challenging for the paramedics to understand and respect the patient's autonomy, especially when the patient's authentic wishes and values are uncertain. Therefore, the risk of ethical value conflicts is substantial (Bremer and Holmberg, 2020). Older, acutely ill patients with impaired decision-making ability also risk negative discrimination because of conscious or unconscious bias among paramedics. The patient's needs may be assessed based on the paramedic's own values (Bremer *et al.*, 2015). This is especially the case when elderly patients are unable to identify, articulate and fight for their needs, missing social networks acting as surrogate decision-makers. In a worst-case scenario, elderly patients can be given a lower priority even though their medical needs are just as, or even more significant, than younger patients with similar needs (Hjalmarsson *et al.*, 2020).

Elderly patients' vulnerability in urgent situations exposes the asymmetrical and unequal power relationship in the care relationship between the paramedic and the patient. That is, paramedics and not the patient have the power through knowledge, skills, resources, social legitimacy and legal authority (Zaner, 2000). The paramedics' power to help occurs increasingly when the patient becomes more dependent on them. The movement of power to the paramedic and away from the patient may leave the elderly vulnerable to an abuse of power (Wiggins and Schwartz, 2005). Consequently, the patient needs to trust not only the professional knowledge of the paramedics but also their moral character as well. Therefore, this study is timely to explore how US paramedics perceive their power in care relationships with elderly patients and its effect on the patient's self-determination.

Aim

The aim was to explore the attitudes and perceptions of paramedics in a US context regarding self-determination in elderly patients who need emergency care provided by EMS.

Method

Design

This study adopted an explorative and descriptive design, using a modified Delphi technique (Keeney *et al.*, 2011). With the Delphi technique, consensus is sought on the opinions of a

group of experts, using an iterative multistage process to combine individual opinions into group consensus (Hasson *et al.*, 2000).

Study settings

The skills and scope of practice for paramedics in the US vary significantly across the country. Furthermore, it can even vary within the same city and county. Despite there being a National EMS Standard in the USA, some states, counties and even departments have different levels of care, clinical scope and medications that can be administered (O'Meara *et al.*, 2017).

Most paramedics in the USA go through a certification course offered through technical colleges, training centers and some universities (Ruple *et al.*, 2006). Approximately 16% of nationally registered emergency medical technicians (EMTs) have an associate degree (Leggio *et al.*, 2021), and less than 5% nationally registered paramedics currently practicing in the field hold a graduate degree (Cash *et al.*, 2022).

Geriatrics is a component of education, but only a small percentage compared to the overall medical diagnosis and treatments included in the educational curriculum (Ball *et al.*, 2022). Continuing education typically does not focus on geriatrics, and little to no training specifically addresses elderly decision-making.

Expert panel

Purposive sampling was used to form an expert panel of US paramedics in Washington State. The selection of experts followed an ongoing critical review among all authors (Wakefield and Watson, 2014). A total of 50 formal invitations were sent to presumptive experts, of which 21 agreed to participate in the expert panel. The invitations contained details about the study method, confidentiality, expected length of the study and instructions, along with the questionnaire. The expert panel ($N = 21$) was homogeneous in relation to the study's topic and heterogeneous with a variation of age, gender as well as personnel from ambulance, fire department non-transport or fire-based transport services (Table 1).

Basis of the study

This study utilized a modified Delphi technique in which the first round consisted of pre-determined items ($N = 109$) derived from a study on Swedish ambulance clinicians' (nurses

Table 1. Demographic information about the participants

	Round 1	Round 2	Round 3
<i>Participants (N/n)</i>	21	16	14
<i>Age (years) (n)</i>			
21–28	10	7	6
29–35	4	2	2
36–42	4	4	3
43–50	1	1	1
>51	2	2	2
<i>Gender (n)</i>			
Male	20	16	14
Female	1	0	0
<i>Place of work (n)</i>			
Ambulance department	9	8	7
Fire department non-transport	6	2	2
Fire department transport	6	6	5

Source(s): Authors' own creation

and EMTs working in government-run ambulance services) attitudes to elderly people's self-determination (Svensson *et al.*, 2022). A web-based questionnaire was developed using items referring to ambulance clinicians' attitudes toward elderly people's self-determination using the Qualtrics® platform (Qualtrics, Provo, UT). The items were originally formulated in Swedish and subsequently translated by a professional translator into English. The English translation was then subject to review by the native-speaking co-authors (DP and SD), and wording amendments were made to fit the US EMS context. The questionnaire consisted of 108 unique items in total, referring to four categories: Category (1) Attitudes regarding the patient ($n = 35$); Category (2) Attitudes regarding the patient relationship ($n = 8$); Category (3) Attitudes regarding oneself and one's colleagues ($n = 46$) and Category (4) Attitudes regarding other involved factors ($n = 19$).

Data collection

Data were collected between the 1st of February and the 27th of April 2021, using an e-mail-distributed questionnaire in three rounds. In all three rounds, the experts were asked to rate to what extent they agreed upon each item using a five-point Likert-scale: (1) disagree, (2) somewhat disagree, (3) neutral, (4) somewhat agree and (5) agree. Additionally, the expert panel was able to add in free text items they believed were missing in the questionnaire. The group's mean value of each item – from the previous round – was provided as feedback to stimulate the participants to reflect upon these values while reconsidering their answers in the following rounds. Three reminders were sent out. The experts who did not respond to the second reminder were contacted by phone ($n = 5$). Each questionnaire was available for 23 (Round 1), 10 (Round 2) and 20 (Round 3) days, respectively. For rounds 2 and 3, a revised questionnaire consisting of items that had not reached consensus was sent to the expert panel for evaluation and rating. No new items emerged in the free text answers.

Data analysis

Descriptive statistics (mean value and standard deviation) using Microsoft Excel were adopted in the analysis. The five-point Likert scale was trichotomized to a three-point scale for analytical purposes before determining whether consensus had been reached (Jirwe *et al.*, 2009; Rådestad *et al.*, 2013). Thus, 1–2 on the Likert scale represented “not agree,” 3 represented “neutral” and 4–5 represented “agree.” A consensus level of $\geq 70\%$ was set prior to the study. All items that reached consensus on the trichotomized scale were removed from the following rounds.

Ethical considerations

The study was carried out in line with the Declaration of Helsinki (2013). Permission was granted by the Central Washington University Ethics Committee (No. 2020–140).

Results

Of the 21 experts that agreed to participate, 14 completed all three rounds, leaving a total response rate of 67% (Table 2). In total, 87 out of 108 items reached consensus, of which 60 were “agree” and 27 were “not agree.” No item reached “neutral” consensus. In category 1 (Attitudes regarding the patient), 28 of 35 items (80%) reached consensus, with 17 responses “agree” and 9 “not agree” (Table 2). In category 2 (Attitudes regarding the patient relationship), 7 of 8 items (88%) reached consensus, with a unanimous “agree” (Table 2). In category 3 (Attitudes regarding oneself and one's colleagues), 40 of 46 items (87%) reached consensus, of which 25 were “agree” and 15 were “not agree” (Table 2). In category 4 (Attitudes regarding other involved factors), 14 of 19 items (74%) reached consensus with 11 “agree” and 3 “not agree” (Table 2).

Table 2. Items for which consensus was reached in categories (1) Attitudes regarding the patient; (2) Attitudes regarding the patient relationship; (3) Attitudes regarding oneself and one's colleagues and (4) Attitudes regarding other involved factors

		Mean value	Standard deviation	Consensus reached in round
Category 1	Agree			
	Self-determination can entail refusing life-saving treatment.	4,9	0,3	1
	An elderly patients wishes may vary over time.	4,8	0,4	1
	If a patient is unable to speak for himself/herself, paramedics have less knowledge of the patients wishes compared with others present around the patient (e.g. relatives or healthcare professionals).	4,6	0,6	1
	An elderly patient who wants to go to the accident & emergency department must not be denied this.	4,6	0,9	1
	There is a difference between being able and willing to exercise self-determination	4,5	0,7	1
	It is difficult to assess a patients capacity for self-determination if the patient is not fully capable of making a decision.	4,5	0,9	1
	An elderly patient is capable of making a decision if he/she knows his/her personal ID number, his/her previous illnesses and what day it is.	4,4	0,7	1
	It is common for elderly patients to want to make their own decisions.	4,3	0,7	1
	Even if a patient has critical medical symptoms, his/her self-determination must be respected.	4,3	1	1
	Elderly patients have a personal responsibility for their decisions and their consequences.	4,2	0,7	1
	It is common for patients to relinquish their self-determination to paramedics.	4	0,9	1
	If a patient has previously participated in a documented ELC (End of Life Care) discussion, it is easy to respect the patients self-determination and not administer life-saving treatment in the event of cardiac arrest.	4	1,1	1
	There are elderly patients who do not want self-determination	3,8	1,1	1
	Elderly patients suffering from dementia have the right to self-determination	3,8	1,2	3
	If an elderly patient's self-determination is in conflict with the ambulance service's guidelines, the written consent of the patient needs to be obtained	3,8	1,5	2
	Elderly patients who represent a danger to themselves or their surroundings have no right to self-determination.	3,6	1,1	1
	Elderly patients have faith in the competence of paramedics and do not therefore request self-determination.	3,4	1,4	2
	Not agree			
	Patients who use the ambulance service regularly (frequent flyers) do not have the right to self-determination.	1,3	0,5	1
	A patient's capacity for self-determination is limited if it requires a lot of time to respect it	1,6	1	2
	Elderly women are not used to having self-determination.	1,7	1	1
	Only the patient knows what is best for him/her	1,8	1,1	2
An elderly patient is rarely involved in the decision to call an ambulance	1,9	1,2	2	
Elderly patients may not make their own decisions about where they are to be transported	2	1,3	1	
Elderly patients who are unconscious have no right to self-determination.	2,1	1,5	2	
Elderly patients suffering from psychological ill health have no right to self-determination.	2,2	1,2	1	
Patients known to be drug abusers have no right to co-determination in connection with pain relief	2,2	1,2	1	
Category 2	Agree			
	During a conversation with a patient, I assess his/her capacity for self-determination.	4,9	0,3	1
	Respecting an older patients self-determination is about making a decision together with the patient.	4,6	0,8	1
	Protecting a patients self-determination is the joint responsibility of me and the patient.	4,6	0,8	1
	Decisions based on a patients self-determination are always made in consultation with the patient.	4,2	0,9	1
	Self-determination involves negotiation between the patient and me.	3,9	1,2	3
	Self-determination requires paramedics and the patient to come to an agreement	3,8	1,3	1
If I am unable to judge during a conversation whether a patient has the capacity for self-determination, the assessment is based instead on a generalisation with reference to previous care meetings	3,8	1,3	2	

(continued)

Table 2. Continued

		Mean value	Standard deviation	Consensus reached in round
Category 3	Agree			
	It is important that I make the patient realise the seriousness of his/her situation.	5	0.2	1
	It is my task to create the conditions for a patients self-determination by helping him/her to understand that there are different care options.	4.9	0.3	1
	I have an obligation to respect the patients decision.	4.9	0.3	1
	Protecting a patients self-determination requires patience.	4.8	0.4	1
	There are situations in which I feel that the best thing for a patient does not corresponds with the patients own opinion.	4.8	0.4	1
	To protect a patients self-determination (ability to make own decisions) is to protect his/her dignity.	4.7	0.5	1
	It is my job to make a patient understand that the patient has the right to self-determination.	4.7	0.6	1
	Protecting an elderly patients self-determination means protecting his/her participation	4.6	0.6	1
	I disregard the patients self-determination if he/she threatens to commit suicide.	4.6	0.6	1
	A responsive approach is needed to be able to respect the patients self-determination.	4.6	0.7	1
	It takes courage to respect a patients self-determination	4.6	1.1	1
	I use my colleague as support when deciding whether a patient has the capacity for self-determination	4.5	0.9	1
	There are situations in which the patients self-determination comes into conflict with what I considered dignified.	4.4	0.9	1
	If a colleague makes a decision that does not respect a patients self-determination, I raise an objection.	4.3	1	1
	A responsive approach is needed to be able to respect the patients self-determination.	4.2	1	1
	Responsibility for protecting a patient's self-determination is passed on to the accident & emergency department if the patient demands to be taken there, even this is in conflict with the ambulance service's guidelines.	4.2	1.2	2
	There is a difference between motivating, recommending and persuading a patient.	4.2	1.4	1
	It takes experience and confidence in the profession to protect a patients self-determination.	4.1	1.2	1
	Forcing a patient is to abuse his/her self-determination.	4.1	1.2	1
	It takes creativity to accommodate the patient's self-determination.	4.1	1.2	2
	If I make decisions that do not respect a patient's self-determination, I have a bad conscience.	4.1	1.4	3
	It is important to make sure that you cover your back if the patients self-determination is in conflict with the ambulance services guidelines.	4	1.2	1
	The experience, personality and interest of paramedics influence the extent to which the patients self-determination can be respected.	3.9	1.1	1
	Protecting a patients capacity for self-determination is time-consuming.	3.6	1.3	1
	In CPR situations, I often lack information about the patient's wishes.	3.5	1.4	1
	Not agree			
	Respecting the patients self-determination is primarily the responsibility of others, not mine.	1.2	0.9	1
	I disregard the patients self-determination if he/she is in a palliative stage.	1.5	1	1
	Sometimes my colleague and I lie to patients in order to persuade them.	1.5	1.1	1
	I distrust certain patients and therefore show no respect for their self-determination.	1.6	1.2	1
	Guiding a patient is a violation of his/her self-determination	1.7	0.9	1
I cannot question a doctors decision if the decision is in conflict with the patients wishes.	1.8	1	1	
Respect for a patients self-determination is affected by how much time I have available for the ambulance assignment.	1.9	1	1	
My responsibility to save lives takes precedence over the patient's self-determination	2	1.2	2	
I disregard a patient's self-determination to a greater extent than I am aware of.	2	1.2	2	
It is usual for me to distrust a patient and therefore disregard his/her self-determination.	2	1.3	1	
Sometimes my colleague and I manipulate a patient in order to get him/her to do what we want.	2	1.3	1	
If a colleague makes a decision that does not respect a patient's self-determination, it is difficult to raise an objection.	2	1.4	2	
Because of their uniform and position of authority, paramedics have the upper hand over the patient.	2.2	1.4	3	
I disregard a patients desire to stay at home if there are uncertainties regarding his/her medical condition.	2.3	1.2	1	
If I question a patient's self-determination, I do so even though I know it may harm the patient.	2.3	1.3	2	
Category 4	Agree			
	There may be a conflict between a patients self-determination and the wishes of loved ones.	4.8	0.6	1
	A responsive approach is needed to be able to respect the patient's self-determination.	4.6	0.7	1
	It is easier to protect a patients self-determination if others (e.g. relatives, home help staff, home care staff, etc.) are available to provide support.	4.4	0.7	1
	It is common for relatives to make decisions about the patient.	4.4	0.8	1
	It is frustrating when others present want me to make a decision that is in conflict with the patients self-determination.	4.3	1.2	1
	There are others (e.g. relatives, healthcare professionals) who delegate responsibility for the patients self-determination to me.	4.1	1.2	1
	Relatives are helpful in respecting the patients self-determination if he/she is unable to convey his/her wishes.	4	0.9	1
	There are colleagues who, even when making their way out to a patient, decide that the patient should remain at home, regardless of the patients wishes.	4	1.3	1
	It is important to accommodate the wishes of relatives in situations in which the patient requires care and relatives are unable to provide care at home	3.9	1.2	1
	The surroundings (e.g. home environment) are important for whether I consider that a patient has the capacity for self-determination	3.8	1	1
	In situations where a patients self-determination is in conflict with ambulance services guidelines, it is a relief to me if more senior medical competence (e.g. a doctor) makes decisions.	3.8	1.3	1
	Not agree			
	The time of day determines whether a patients self-determination can be respected.	1.4	0.9	1
	Following the ambulance services guidelines takes priority over respecting the patients self-determination.	1.5	0.7	1
It is appropriate to use the police or the Ambulance Act as a threat if a patient's wishes are in conflict with the ambulance service's guidelines.	1.8	1	3	

Source(s): Authors' own creation

Round 1

The questionnaire was sent out to the expert panel ($N = 21$). All paramedics responded, giving a response rate of 100%. Out of 108 items provided to the experts in round 1, 69 (64%) reached the predetermined consensus level of $\geq 70\%$. Items reaching “agree” had a mean value ranging from 5 to 3,5 (SD 0,2–1,4), and items reaching “not agree” had a mean value ranging from 1,2 to 2,3 (SD 0,5–1,3).

Round 2

The questionnaire was sent out to the expert panel ($N = 21$). In round 2 16 experts responded, giving a response rate of 76% compared to the previous round. Out of 39 items that were provided to the experts in round 2, 13 (33%) reached the predetermined consensus level of $\geq 70\%$. Items reaching “agree” had a mean value ranging from 4,2 to 3,4 (SD 1,2–1,5) and items reaching “not agree” had a mean value ranging from 1,6 to 2,3 (SD 1–1,5).

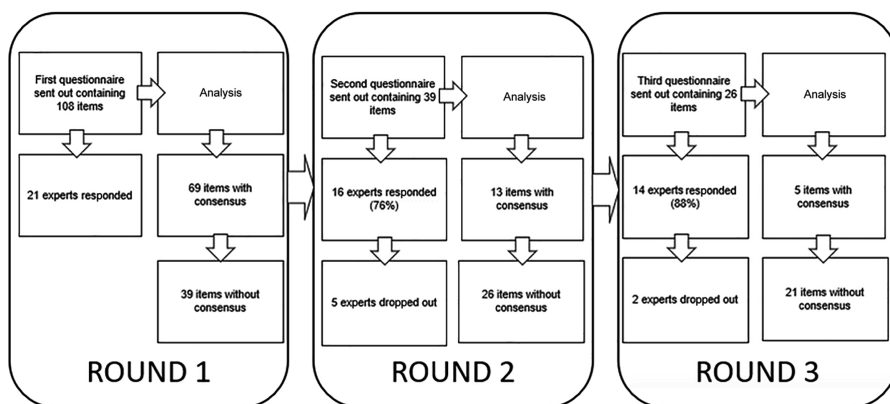
Round 3

The questionnaire was sent out to the remaining experts ($n = 16$) from round 2, and responses from 14 experts were provided. Round 3 ended up with a response rate of 88% compared to the previous round. Out of 26 items that were provided to the experts in round 3, 5 (19%) reached the predetermined consensus level of $\geq 70\%$. Items reaching “agree” had a mean value ranging from 4,1 to 3,8 (SD 1,2–1,4), and items reaching “not agree” had a mean value ranging from 1,8 to 2,2 (SD 1–1,4) (see [Figure 1](#)).

Discussion

Result discussion

The paramedics in this study considered it very important to make the patient realize how serious their situation was. Based on the ranking of items, the paramedics also seemed to emphasize the supportive aspect in the paramedic-patient relationship to help the patient understand what care options were available. At the same time, they assessed the patient’s capacity for self-determination. The result is in line with the Swedish study by [Svensson et al. \(2022\)](#), but differs regarding this discussion, where we will focus on the educational aspects of ethical issues in the US EMS care context of elderly patients.



Source(s): Authors’ own creation

Figure 1. Delphi flowchart of the three rounds

The US paramedics' strategy of simultaneously being supportive and assessing decision-making ability can firstly be explained by the principle of beneficence. Secondly, and on a more general level, the strategy can be explained with the principle of justice, i.e. that the elderly should also have the same right to support as younger patients. The degree to which paramedics in the present study use specification, intuitive balancing, or deductive subsumption to resolve conflicts between the four principles of [Beauchamp and Childress \(2019\)](#) cannot be determined from the results. However, the most important in the present study is perhaps that US paramedics seem to advocate "relational autonomy" in their ambition to, as far as possible, protect the patient's will. [Dove et al. \(2017\)](#) argue that relational autonomy can be seen as a response to an individualistic understanding of autonomy where people are independent, self-interested and rational gain-maximizing decision-makers. Instead, a person's identity, needs, interests, and autonomy are always shaped by their relationships to others, especially in clinical practice when the person has ended up in a patient role. Through such interdependent relationships, the patient develops a capacity for exercising his/her self-determination ([Dove et al., 2017](#)). Additionally, there are many factors that may affect the elderly in their decision-making. Cost is a big issue, and although the elderly in the USA are on Medicare, i.e. a US health insurance program for people age 65 and older, covering certain devices, supplies, drugs and biologicals that have been determined to fall within a specific benefit category ([Centers for Medicare and Medicaid Services, 2023](#)), they may not have supplemental insurance and be unaware of other options afforded to them, so they may not wish to go to the hospital ([Syed et al., 2013](#)). An earlier study on elderly patients found that the arrival of professionals means access to their power, competence and abilities. The elderly entrusted their lives to the professionals as a forced activity involving handing over control and decision-making and thus complying with directives and bodily manipulation without questioning procedures ([Hjalmarsson et al., 2023](#)).

In the context of prehospital emergency care, it is no surprise when paramedics consider it important to inform the patient about their situation and, with the patient's best interests at heart, make them understand what options are best ([Bremer and Holmberg, 2020](#); [Bennesved et al., 2024](#); [Holmberg et al., 2024](#)). Based on [Sandman and Munthe \(2009\)](#), we argue this approach could in fact be considered a form of shared decision-making using the Professionally Driven Best Interest Compromise model. This model is useful when the patient and healthcare professional fail to reach consensus and the paramedic/nurse is required to best harmonize between the patient's values and the seriousness of the situation. That is focusing on the patient's best interest, their autonomy, patient adherence and the continued care relationship. For the paramedics in the present study, the starting point for safeguarding the patient's best interests was an emphasis on the patient's serious situation. Based on this, the patient's adherence to the assessment was sought by describing available care options.

Dealing with such complex ethical issues should be viewed in the context of the US EMS model, which heavily relies on medical directors who develop protocols and provide paramedics with a license of authority to practice ([National Association of State EMS Officials, 2021](#)). As such, EMS in the USA reflects a protocol modus operandi "find it fix it" medical diagnosis model which is centered on the identification and treatment of illness or traumatic injuries. While Swedish ambulance nurses undertake a medical diagnosis and subsequent management plan, their nursing background may incorporate a nursing diagnosis focusing more on the ethical issues in the human interaction with disease and traumatic injury and not just a find it, fix it approach ([Gunnarsson and Stomberg, 2009](#); [Wallin et al., 2022](#); [Wihlborg et al., 2014](#)). However, the nexus between nursing and EMS is not a "common sense" approach. Instead, it requires both theoretical and practical education. Nurses in Sweden undergo 180 credit points of university studies (three years of full-time studies), of which 90 credit points fall within the major subject nursing/caring science. Nursing/caring science largely focuses on interpersonal aspects of the nurse-patient relationship ([Arman et al., 2015](#)), involving ethics educational modules. This results in nurses with a bachelor's degree in nursing/caring science, together with the professional degree. There is a push to have

paramedics complete a baccalaureate degree in response to the strategic direction relating to university qualifications for US paramedics (Caffrey *et al.*, 2019; Leggio *et al.*, 2021). However, the number of paramedic baccalaureate degree programs in the USA is unclear in the peer-reviewed literature, despite the Commission on Accreditation of Allied Health Education indicating there are 13 accredited baccalaureate degree programs and another three seeking initial accreditation (Commission on Accreditation of Allied Health Education Programs, 2023). Compared to Australasia, which has 20 paramedicine bachelor's degree university programs for a population of just under 26m Australians and a little over five million New Zealanders. Hence, 16 baccalaureate paramedic degree programs in the entire USA, which has more than 10 times the population of Australasia, are insufficient to meet the strategic push for the uptake of paramedicine degrees in America (Australasian Council of Paramedicine Deans, 2023). As such, the EMS paramedic education and training system in the USA is a stark contrast to the Swedish ambulance nurse tertiary education model. By highlighting these differences, a greater understanding of the current results can be interpreted in that US paramedics are more likely to reflect upon their own role in providing care that respects the patient's self-determination rather than what effect this might have on patient outcomes. This differs from the Swedish study (Svensson *et al.*, 2022), where a solid educational focus on the patient's views (nursing/caring science) may provide the EMS personnel with a greater understanding of the ethical challenges of their work, which are not primarily derived from the paramedics' tasks and obligations. Further to the university bachelor's degree in nursing model discussed above, many counties in the Swedish system require a master's degree in ambulance studies. In contrast, there is no standardization of EMS education programs in the USA. Available degree qualifications options for paramedics in the USA are minimal, with only 2% of training programs offering baccalaureate degrees and most paramedics undertaking high school and community college diplomas (Leggio *et al.*, 2021). Criticism of the diploma approach for paramedic training in the USA focuses on components missing from this training model to adequately prepare paramedics for critical decision-making, which relies on an understanding of ethical issues, research and evidence-based practice. In addition to the Swedish system, degree programs provide greater underpinning knowledge and focus on aspects such as professionalism, social determinates of health and ethically and culturally safe practice and seek to identify and explore unconscious bias (Leggio *et al.*, 2021). Attaining a graduate degree does not simply demonstrate intelligence; it proves the ability to identify and accomplish a long-term, difficult goal. It also demonstrates initiative, dedication to personal success and the ability to overcome obstacles (Barishansky, 2010). In a culture that has traditionally seen trauma and cardiac arrest cases as a badge of honor for paramedics, cases involving mental health crises and elderly fallers may be viewed as less desirable than high-acuity work, and a stigma can be applied to less desirable cases (Devenish *et al.*, 2016; Devenish, 2014). However, a movement appears to be gaining momentum in some US EMS jurisdictions, such as Kansas, Oregon and New York, requiring paramedics to have an associate degree to practice (State Emergency Medical Services Council, 2023; Caffrey *et al.*, 2019; Leggio *et al.*, 2021). Despite the push for university qualifications, paramedics in the USA are not given equal health professional status compared to other health disciplines such as nursing, medicine and allied health (Newton-Riner, 2020). The fragmented education systems and a medical diagnosis protocol *modus operandi* approach in the USA may go some way to explaining the difference in this study's results compared to the previous Swedish-based research investigating the same phenomenon.

In Australia, New Zealand (Aotearoa) and the UK, new entrants to the paramedicine profession are required to have completed an accredited bachelor's degree. In 2018, paramedicine in Australia became the 15th registered health profession with the Paramedicine Board of Australia and the Australian Health Professions Registration Agency (AHPRA) (Paramedicine Board of Australia, 2023). New Zealand paramedics became registered with the Paramedic Council (Kaunihera Manapou) in 2021 (Australasian College of Paramedicine, 2021), whereas paramedics in the UK have been registered with the Health and Care

Professions Council (HCPC) since early 2001 (Newton and Psm, 2012). As a result, paramedics are registered health professionals. Furthermore, the title “paramedic” has been protected by law in these countries. Postgraduate studies are also required for higher care specialization roles such as critical care and community paramedicine, usually set at a master’s level. There is a growing body of knowledge and research culture (Williams *et al.*, 2021), with over 69 paramedics in Australasia and 66 in the UK having enrolled in or completed doctoral research degrees (Paramedic PhD, 2023).

In contrast, the USA has 21 paramedics registered as enrolled or having completed doctoral research degrees as of 2023, despite the larger population of paramedics than Australasia and New Zealand.

Strength and limitations

The study was done with a group of paramedics that work in the WA state area and are in different types of settings based on location. One limitation could be that it is unknown whether the population covered paramedics at the Basic Life Support level or the Advanced Life Support level. Some counties have a private ambulance transport system with fire-based EMS that does not have transport capabilities. Most other counties have fire-based transport agencies. A few of our study members that were hired by fire-based agencies dropped out the second or third round. This could be a limitation as the number of experts decreased. However, the response rate between rounds 1 and 2 and 2 and 3 was 76 and 88%, respectively, which is considered high in Delphi studies.

The translation and development of the US questionnaire resulted in that one item occurred as a doublet and one disappeared in relation to the Swedish questionnaire. This was not apparent until after finishing data collection and might have impacted the result as the later one covered interprofessional collaboration. However, other items in the fourth category that reached consensus covered this.

Conclusion

This novel study provides an initial exploration of attitudes and perceptions of US paramedics regarding self-determination in elderly patients’ who need emergency care provided by EMS. The findings underline the paramedic–patient relationship as a core in assessing and handling ethical aspects of EMS care. However, this is an advanced practice influenced by the paramedics’ educational level and/or the patients physical/mental status. Within a context driven by “find it fix it” as the modus operandi, there is a need to increase paramedics’ competence in understanding and handling advanced ethical issues in relation to ethical values such as autonomy and self-determination in elderly patients. Compared to other countries such as Australia and Sweden, up to date, a minority of USA states require paramedics to have an associate degree to practice. To move from the existing modus operandi to handle complex ethical issues and provide a patient-oriented care, US paramedics might benefit from updated educational requirements, following the example from other western countries. However, more research is needed to fully understand this from (1) the perspective of paramedics in other countries and (2) how to, in an effective way, increase paramedics’ competence in assessing and handling patients’ ethical values.

Meeting the demographic changes of an aging population may require updated educational requirements/opportunities for paramedics. Based on the present study, paramedic education (external and in-house) needs to shift its focus from the “find it fix it” modus operandi, to stimulate reflection, especially on ethical issues and how these can be properly addressed to provide patient-centered care. The next step in research and practice would be to design interventions to support paramedics ethical competence. In this regard, ethical rounds have been found effective in other contexts, providing opportunity to jointly discuss and reflect upon ethical issues. Thus, increasing the competence of paramedics to understand and deal

with advanced ethical issues in relation to ethical values such as autonomy and self-determination in elderly patients. However, such interventions must be adapted to properly respond to EMS care and context.

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