The impact of regional culture on intensive care end of life decision making: an Israeli perspective from the ETHICUS study

F D Ganz, J Benbenishty, M Hersch, A Fischer, G Gurman, C L Sprung

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Background: Decisions of patients, families, and health care providers about medical care at the end of life depend on many factors, including the societal culture. A pan-European study was conducted to determine the frequency and types of end of life practices in European intensive care units (ICUs), including those in Israel. Several results of the Israeli subsample were different to those of the overall sample.

Objective: The objective of this article was to explore these differences and provide a possible explanation based on the impact of culture on end of life decision making.

Method: All adult patients admitted consecutively to three Israeli ICUs ($n = 2778$) who died or underwent any limitation of life saving interventions between 1 January 1999 and 30 June 2000 were studied prospectively ($n = 363$). These patients were compared with a similar sample taken from the larger study (ethics in European intensive care units: ETHICUS) carried out in 37 European ICUs. Patients were followed until discharge, death, or 2 months from the decision to limit therapy. End of life decisions were prospectively organised into one of five mutually exclusive categories: cardiopulmonary resuscitation (CPR), brain death, withholding treatment, withdrawing treatment, and active shortening of the dying process (SDP). The data also included patient characteristics (gender, age, ICU admission diagnosis, chronic disorders, date of hospital admission, date and time of decision to limit therapy, date of hospital discharge, date and time of death in hospital), specific therapies limited, and the method of SDP.

Results: The majority of patients ($n = 252$, 69%) had treatment withheld, none underwent SDP, 62 received CPR (17%), 31 had brain death (9%), and 18 underwent withdrawal of treatment (5%). The primary reason given for limiting treatment was that the patient was unresponsive to therapy ($n = 187$). End of life discussions were held with 132 families (36%), the vast majority of which revolved around withholding treatment (91% of the discussions) and the remainder concerned withdrawing treatment ($n = 11$, 9%).

There was a statistically significant association ($\chi^2 = 830.93$, $df = 12$, $p < 0.0001$) between the type of end of life decision and region—that is, the northern region of Europe, the central region, the southern region, and Israel.

Conclusions: Regional culture plays an important part in end of life decision making. Differences relating to end of life decision making exist between regions and these differences can often be attributed to cultural factors. Such cultures not only affect patients and their families but also the health care workers who make and carry out such decisions.

See end of article for authors' affiliations

Correspondence to:
F D Ganz, Hadassah-
Hebrew University School
of Nursing, Kiryat
Hadassah, PO Box 12000,
Jerusalem, Israel; freda@
md.huji.ac.il

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Culture can influence many aspects of life, including family dynamics, coping styles, and perceptions of death and dying, as well as the expectations that people have from the health care system.¹ Decisions of patients, families, and health care providers about medical care at the end of life also depend on many factors. These include relevant medical data, the physician–patient relationship, institutional rules and regulations, and the general sociocultural, ethical, legal, and religious principles of the society.² Several studies have shown that some of the differences in end of life decision making are associated with local cultural factors.^{3–7}

During 1999 and 2000, a European study was conducted to determine the frequency and types of end of life practices in European intensive care units (ICUs).⁸ Israeli ICUs were also included in this research. The present study explores differences between Israel and other countries, with a possible explanation for these differences based on the impact of regional culture on end of life decision making.

METHODS

Study population

All consecutive adult patients admitted to three Israeli ICUs who died or had any limitation of life saving interventions

between 1 January 1999 and 30 June 2000 were studied prospectively. The present study was part of the ethics in European intensive care units (ETHICUS) study sponsored by the Ethics Section of the European Society of Intensive Care Medicine. Patients were followed until discharge, death or 2 months from the decision to limit therapy. End of life decisions relating to each patient were divided prospectively into one of five mutually exclusive categories: cardiopulmonary resuscitation (CPR), brain death, withholding treatment, withdrawing treatment, and active shortening of the dying process (SDP) as previously described.⁸ The following were the definitions for each category:

- CPR: ventilation and cardiac massage
- Brain death: documented cessation of cerebral function
- Withholding treatment: a decision was made not to start or increase a life sustaining intervention

Abbreviations: CPR, cardiopulmonary resuscitation; DNR, do not resuscitate; ETHICUS, ethics in European intensive care units; ICU, intensive care unit; SDP, shortening of the dying process

- Withdrawing treatment: a decision was made actively to stop a life sustaining intervention presently being given
- SDP: a circumstance in which someone performed an act with the specific intent of shortening the dying process; did not include withdrawing or withholding treatment.

Patients were categorised into the more active mode of limitation if more than one mode was used. They were placed into the withholding category only if that was the sole limitation made, while those in the withdrawing category included patients from whom treatment was both withheld and withdrawn. Patients who were placed in the SDP group included those who underwent withdrawing and withholding of treatment in addition to SDP. Those who died without treatment limitation had either undergone unsuccessful CPR or were diagnosed as brain dead. If a patient had undergone successful CPR before the withholding or withdrawing of treatment or suffered brain death after the withholding or withdrawing of treatment, this was categorised as withholding or withdrawing.

This Israeli sample, a subgroup within the ETHICUS study, was also compared with patients from the larger study population. The ETHICUS study included all consecutive adult patients who died or had any limitation of life saving interventions in an ICU between 1 January 1999 and 30 June 2000 in 37 European ICUs in 17 different countries. For comparison purposes, the countries were categorised into three regions: northern, central, and southern Europe. Each country was designated as follows: the northern region (Denmark, Finland, Republic of Ireland, the Netherlands, Sweden, and the UK); the central region (Austria, Belgium, Czech Republic, Germany, and Switzerland); and the southern region (Greece, Italy, Portugal, Spain, Turkey). These regions were then compared with the Israeli sample.

No interventions or treatments were given to patients as part of this study. Ethics committee approval was obtained from each participating institution.

Data collection

Senior ICU physicians in each institution collected the data prospectively. These data included not only the categories listed above but also patient characteristics (gender, age, date and time of hospital mortality, date of hospital discharge, date of hospital admission, and date and time of decision to limit therapy), and method of SDP.

Statistical analyses

Univariate relationships between end of life categories and nominal level data were analysed using the χ^2 test.

RESULTS

During the data collection period, 2778 patients were admitted to the three Israeli ICUs participating in the study. The mean age of the patients was 61.8 ± 21 years and 57% were male. Of all the patients admitted to the ICU, 363 (13%) died or had some limitation of therapy. Of those who had limitation of therapy, almost all died (99%). The median time from ICU admission to the first decision to limit treatment was 4 days (mean 9 days) and it was 11 hours from the first decision until death.

The majority of patients ($n = 252$, 69%) had treatment withheld while none underwent active SDP. Of the remaining patients, 62 had CPR (17%, range between the three ICUs 11–29%), 31 had brain death (9%, range 0–10%), and 18 underwent withdrawal of treatment (5%, range 2–26%). There were 12 patients who had withdrawal of vasopressors while there were no withdrawals from a ventilator. The primary reason given for limiting treatment was that the patient was unresponsive to therapy ($n = 187$) (table 1).

Table 1 Reasons for limiting treatment.

Reason	n	%
Unresponsive to therapy	187	69
Multisystem organ failure	27	10
Neurological cause	19	7
Chronic disease	16	6
Sepsis/septic shock	9	3
Patient/family request	5	2
Poor quality of life	1	0.4
Age	1	0.4
Other reasons	5	2
Total	270	100

Less than half of the end of life decisions were discussed with the patients or their families. These decisions were discussed with three patients; however, only five (1.4%) patients were mentally competent at the time that a decision was made. End of life discussions were held with 132 families, the vast majority of which revolved around withholding treatment (91% of the discussions); the remainder concerned withdrawing treatment ($n = 11$, 9%). The wishes of 63 patients (17%) were known to their families. The primary reason given by physicians about why a decision was not discussed with a patient was because the patient was unconscious ($n = 256$) or would not be able to understand ($n = 9$).

In another 75 cases, the families were told of a decision and were not a part of the discussion. The reasons given for why physicians did not have discussions with these families were that the patient was unresponsive to therapy, the physician thought the family member would not understand, or a family member was unavailable (19%).

Do not resuscitate (DNR) orders were documented in about one third ($n = 91$) of the medical records of the 270 patients who underwent withholding ($n = 252$) or withdrawing ($n = 18$) of treatment.

There was a statistically significant association ($\chi^2 = 830.93$, $df = 12$, $p < 0.0001$) between the type of end of life decision and European region and Israel (table 2). Compared with the other regions, the Israeli sample showed a much higher frequency of withholding as opposed to withdrawing treatment.

DISCUSSION

The results of this study point to differences in end of life decision making in various regional cultures. Perhaps the most striking difference between the Israeli sample and that of Europe is in the use of end of life treatment options. SDP was not reported at all in the Israeli patients and the frequency of withdrawing treatment was much lower compared with those of all the other regions. However, the Israeli physicians in this study withheld treatment almost twice as often as those in other regions of Europe. Differences overall relate to: withholding versus withdrawing therapy; the use of DNR orders and SDP; contrasting religions and cultures; communication with families in making these decisions; and implications of these decisions on society as a whole.

Reasons for withholding versus withdrawing therapy

There are several possible explanations for the relevant Israeli practices. First, Israeli culture and law are based, in part, on the Halacha, or the body of Jewish ethics and law that governs Jewish life.⁹ The sanctity of life is of extreme importance according to Halacha.¹⁰ Therefore the prolonging of life, even if the prognosis for that life is poor, is an essential part of medical care. According to Jewish religious law, active

Table 2 Numbers and percentages of end of life categories by European region.

	Failed CPR: n (%)	Brain death: n (%)	Withhold: n (%)	Withdraw: n (%)	SDP: n (%)
Northern	154 (10)	48 (3)	575 (38)	714 (48)	14 (1)
Central	217 (18)	92 (8)	412 (34)	409 (34)	79 (6)
Southern*	399 (34)	159 (14)	355(30)	257 (22)	1 (0)
Israel	62 (17)	31 (9)	252 (69)	18 (5)	0 (0)
Total	832 (20)	330 (8)	1594 (38)	1398 (33)	94 (2)

*Southern region did not include Israel

euthanasia is forbidden, as well as directly hastening death by the withdrawal of a treatment.² However, an act of omission or refraining from active treatment in a terminally ill patient, such as by withholding treatment, is permissible. This is because Halacha views withholding treatment as passive non-interference in the natural process of dying, while withdrawing treatment involves an active, direct contact with the body or with the environment of the dying person.¹¹ As a result of these distinctions, active euthanasia is illegal in Israel and there is some legal uncertainty with regard to the withdrawal of therapy such as ventilation.² These legal uncertainties also influence many physicians in Israel, especially those who do not rely on Halacha.

As can be seen in table 2, 5% of the Israeli patients studied had their therapy withdrawn. This would seem to contradict the basic cultural norm described above. However, it should be noted that, in all of these cases, only therapies that were given intermittently were withdrawn. Only one involved the withdrawing of a ventilator. This observation is also consistent with local cultural practice. According to Halacha, if an intermittent therapy is not continued this is considered as withholding further therapy, not withdrawal of therapy. The Israeli sample was a small part of the larger ETHICUS study, which involved all of Europe. A consensus opinion regarding the definitions of withholding and withdrawing therapy was necessary in order to provide consistent results in this study. It was therefore decided to consider stopping intermittent therapy as withdrawing and not withholding therapy, as would be defined in Halacha. Thus, according to the ETHICUS definition, 5% of the Israeli patients had their therapy withdrawn. However, this same action would have been considered to be withholding of therapy by the Israeli definition.

The use of do not resuscitate orders

Although the withholding of therapy was a relatively common practice, DNR orders were infrequently written for the patients in this study. There are several possible reasons for this result. Many other studies have shown a low percentage of DNR orders.^{12–15} Explanations for this include: physician paternalism related to a medical opinion of futile treatment; an implication that writing a DNR order implies a failure of therapy; a fear by physicians that, if a DNR order is written, staff will treat the patient differently;¹⁶ hospital physicians' opinion that the primary physician should give the order; and a lack of opportunity to discuss such issues with the patient or the family. Another possible reason is that Israeli physicians are reluctant to write such orders because there have been no published guidelines, position papers, legislation, or official statements concerning end of life care, making them fearful of legal problems and criminal prosecution.¹⁷

The use of shortening of the dying process

Even rarer in these patients was the use of SDP. Although no patients in this study were found to have undergone SDP, researchers have shown that physicians in other European countries have used such practices.⁷ The frequency of SDP

was found to be higher in Dutch hospitals compared with Austria and Flanders.¹⁶ Similar practices were also noted in a study of French neonatal ICUs.¹⁸ Some physicians in the USA (3.3–4.7%) also take a more active role in the dying process.¹⁹ The absence of SDP in Israel seems to be the result of local culture and law compared with different frameworks in the various European countries.

Differences between religions and cultures

Some of the differences in practices could be due to diversity of religions and cultures between regions. All three of the Abrahamic religions consider life to be sacred.^{20–22} However, some religions hold that there is no ethical difference between withholding a treatment and withdrawing it once it has started.²¹ This view may be more common in other western cultures within Europe. For example, Catholicism holds that bodily life is not a good that should be maintained at all costs, so continuation of treatment is not obligated when it will only prolong the dying process.²² According to Islam, maintaining a terminally ill patient on an artificial life support system for a prolonged period in a vegetative state is not encouraged.²³

Other cultures have similar ethical principles to those in Israel. For example, Spanish law obligates doctors to use CPR regardless of the patient's condition and to consider foremost their duty to care,²⁴ but physicians have the right to place limits on therapy when such treatments are futile and resources are scarce and could benefit others more,²⁴ when perhaps the alternative is not death or CPR. The higher levels of CPR and lower levels of withdrawal of treatment seen in the southern European region that includes Spain demonstrate this regional cultural effect. Others researchers have found similar results by using a questionnaire rather than carrying out an observational study.⁷ Other European countries tend to rely less on some forms of end of life decisions compared with others.⁷ These include Sweden^{25–26} and the Netherlands.^{13–27} One study that investigated European physicians' attitudes towards end of life decisions related to infants with a poor neurological prognosis.²⁸ The authors concluded that, after adjusting for other confounding factors, country remained the strongest predictor of attitudes.

Communication with families in making these decisions

Over one third (36%) of the families in this sample were consulted regarding end of life decisions. Fewer families were consulted in a Dutch study (32%), although this was published in the early 1990s.¹³ However, even in that sample, when discussions were not held with families, the primary reason given was the unresponsiveness of the patient to the treatment. The term "unresponsiveness" was used in the ETHICUS study instead of "futility", which was thought to be a concept to be avoided based on a consensus of the investigators. These physicians believed that, when treatment was non-beneficial and there was no medical therapy that the physician could administer to help the patient, no decision making was necessary on the part of the family. Twenty-eight per cent of the families were not consulted

owing to physicians' assessment that the family would not understand. These actions are similar to views presented by Tomlinson and Brody.²⁹ They concluded that, when therapy is considered to be futile, involving families in end of life decisions undermines rather than enhances autonomous choice because it sends a mixed message and tends to confuse patients and families. The result obtained in the current study points to a minority but continuing sense of paternalism among Israeli physicians, and is consistent with those of another study regarding Israeli intensive care physicians' attitudes towards distribution of resources.³⁰ In this it was shown that Israeli physicians had a more paternalistic attitude compared with US physicians, but their level of paternalism was similar to some European physicians.

Implications of these decisions on society as a whole

Differences between the Israeli sample and that of other regions have implications for society as a whole. For example, by not withdrawing therapy it would be expected that there would be an increase in health care costs. Although there was an increase in the median length of time from the first decision to limit treatment until death, this difference was less than 1 day in the overall ETHICUS study (14.3 hours for withholding and 4.0 hours for withdrawing treatment).⁸

SUMMARY

The results of this study lend further support to the argument that regional cultural factors play an important role in end of life decision making. Differences exist between regions that can often be attributed to cultural diversity. Such cultural factors not only affect patients and their families but also the health care workers who make and carry out such decisions.

Authors' affiliations

F D Ganz, Hadassah-Hebrew University School of Nursing, Jerusalem, Israel

J Benbenishty, Hadassah Medical Organization, Jerusalem, Israel

M Hersch, Intensive Care Unit, Sharee Zedek Medical Center, Jerusalem and Faculty of Health Sciences, Ben Gurion University of the Negev, Beersheva, Israel

A Fischer, Ben Gurion University Hospital, Beersheva, Israel

G Gurman, Faculty of Health Sciences, Ben Gurion University of the Negev, Beersheva, Israel

C I Sprung, Department of Anesthesiology and Critical Care Medicine, Hadassah-Hebrew University Medical Center, Jerusalem, Israel

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