Do German General Practitioners Support Euthanasia?

Results of a nation-wide questionnaire survey

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Objective: To learn more about the attitudes of German general practitioners (GPs) concerning euthanasia and the frequency of its performance in Germany. Methods: 500 GPs from all parts of Germany were randomly selected from telephone listings, and were sent a postal questionnaire with anonymous return envelopes. Participants were asked to make decisions based on hypothetical scenarios involving terminally ill patients and were questioned about their attitudes towards active euthanasia or physician assisted suicide (PAS). Results: The questionnaire was returned by 48% of all 481 eligible GPs (mean age 51 years, 68% male). Although the option of performing euthanasia was rarely chosen in hypothetical scenarios, its performance was considered acceptable by 34% (active euthanasia) and 80% (PAS). Seventy-seven percent of respondents believed that a comparison between euthanasia today and the atrocities committed during the 3rd Reich was not appropriate. Sixty-two percent of respondents had received requests for active euthanasia and 73% for PAS. Thirteen percent and 38% of respondents seem to have performed euthanasia themselves in the past. Conclusions: The majority of German GPs reject active euthanasia and physician-assisted suicide (PAS). Nonetheless, requests for and performance of euthanasia do not seem to be a rare occurrence. Only a small proportion of respondents are willing to perform

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Submitted 7th June 2004. Accepted (in revised form) 26th October 2005. euthanasia at a patient's request under the current legislation which make these acts illegal in Germany. German history seems to play only a minor role in shaping respondents' attitudes towards active euthanasia or PAS.

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Introduction

The legalisation of euthanasia in the Netherlands, Belgium and Oregon and, recently, the case of Terry Schiavo in the USA has again raised widespread concerns about decision-making and medical management at the end of life.^{1,2,3} A number of surveys from Europe, Australia, the United States, Canada, and other countries have addressed the issue of physicians' attitudes towards active and passive euthanasia.4,5,6,7 These investigations have shown that requests for voluntary active euthanasia (administration of a death-bringing drug by someone other than the patient on his request) or physician-assisted suicide (the patient himself is taking a death-bringing drug, supplied by the physician) are common in general practice, although the number of requests and the actual performance of both vary enormously between different countries and across studies.^{6,7,8} Despite the lack of legal frameworks, or the outright illegality of such acts, active euthanasia and physician-assisted suicide actually take place in almost every country for which data are available.^{9,6,10,7,11}

In contrast to other countries, there is no universally accepted definition of euthanasia¹² in Germany. The term "euthanasia" ("Euthanasie" in German) is mainly used to describe Nazi atrocities committed during the "3rd Reich" (the murdering of mentally impaired and mentally ill people by the national socialist regime). The term "physician-assisted suicide" (German: "Beihilfe zur Selbsttötung") is not commonly used. The most comparable German term to describe efforts to end a patient's life at his or her own request is "Sterbehilfe" (engl. "help in dying").¹³

Legally, helping patients to die ("Sterbehilfe") is regarded as a criminal offence in Germany. Furthermore, the German Chamber of Physicians published several recommendations against "Sterbehilfe", the last in 2004¹⁴. At the same time, there is no legal obligation to undertake actions to prolong life at all costs.¹⁵

Relatively few studies have investigated the attitudes of German physicians towards active euthanasia (AVE) and physician assisted suicide (PAS). These investigations were mainly restricted to selected groups of interest or local area surveys and showed that only a minority of German physicians would be willing to perform euthanasia.^{16,17,18,19,20,21,22,23} Although GPs care for the majority of dying patients²⁴ until now there has been no study addressing the attitudes of German GPs towards euthanasia.

In order to better understand this issue, we conducted a nation-wide questionnaire survey. Our study focused on three topics:

- 1. How often are German GPs confronted with requests and how often are they willing to perform AVE and/or PAS?
- 2. What are the attitudes of German GPs towards AVE or PAS? What are the reasons to refuse or to provide euthanasia?
- 3. Does German history under the 3rd Reich influence GPs' attitudes towards AVE and/or PAS?

Methods

We conducted a nation-wide self-administered postal questionnaire survey. Based on an expected response rate of 60% estimated from previous studies²⁵, we contacted 500 GPs in order to obtain responses from a representative 1% (n=300) sample of the 30,000 GPs practicing in Germany at the time of the survey. After conducting a pilot study with 25 GPs and making slight revisions to the questionnaire, we selected 500 GPs after randomisation across Germany using telephone listings from the German Telekom. We sent the questionnaires together with anonymous self-addressed return envelopes. A reminder was sent out to all GPs two months later.

Since there is no generally accepted definition of euthanasia in Germany, we developed a definition of euthanasia for the purpose of our study, together with the Department of Medical Ethics of the University of Goettingen. We defined "*Aktive Sterbehilfe*" ("active euthanasia") as steps in which a patient's death is hastened by a physician's actions in response to his or her request (consistent with AVE). An example would be the injection of a deadly agent by the physician. We defined "Passive Sterbehilfe" ("passive euthanasia") as measures by which a patient commits suicide-using drugs which he or she received, upon request, by prescription from a physician (consistent with PAS). An example of this would be the prescription of excessive doses of analgesics, with the intention of allowing a patient to commit suicide while taking these drugs all at once. The definitions were given in written form prior to the questionnaire. The participants were asked to answer the questions on behalf of these definitions even if they would prefer other descriptions of euthanasia. The questionnaire included 17 questions addressing three topics. First, we asked the respondents for decisions based on four clinical vignettes describing hypothetical scenarios in which dving patients requested euthanasia (Panel 1). Second, we asked about requests

Panel 1. Vignettes used in questionnaires

Vignette 1: A patient of sound mind suffers from prostate cancer with bone metastases. He has probably only a few months to live. There is no chance of healing or stopping the progress of disease. Despite appropriate use of any kind of palliative care, such as administration of non-steroidal-antiinflammatory drugs, morphine, hormonal and radiation therapy, nerve blocks etc. his metastases cause excruciating pain. You are caring for the patient for two years now. A psychiatrist has judged the patient to be not depressed. Now he asks repeatedly for euthanasia.

Vignette 2: A patient of sound mind suffers from progressive cancer and has probably only a few months to live. There is no chance of healing or stopping the progress of disease. Under therapy the patient has well-controlled pain and can continue self-care but he is increasingly concerned about the burden that deterioration and death will place on his or her family. A psychiatrist has judged the patient to be not depressed, but he asks repeatedly for a life-ending injection.

Vignette 3: A patient of sound mind suffers from progressive cancer and has probably only a few months to live. There is no chance of healing or stopping the progress of disease. Under therapy the patient has well-controlled pain but he is confined to bed and unable to care for himself. A psychiatrist has judged the patient to be not depressed, but he asks repeatedly for a life-ending injection.

Vignette 4: A patient of sound mind suffers from progressive cancer and has probably only a few months to live. There is no chance of healing or stopping the progress of disease. Under therapy the patient has well-controlled pain and can care for himself but finds life meaningless and purposeless. A psychiatrist has judged the patient to be not depressed, but he asks repeatedly for a life-ending injection.

For each vignette multiple of the following **answers** were possible: How would you act?

- (I) I refuse the performance of euthanasia ("Sterbehilfe") and care for the patient palliatively the best I can.
- (II) I prescribe a big dose of morphin and brief the patient how its taking is going to hasten death.
- (III) I refuse caring for the patient in future.
- (IV) I administer a death bringing dose of a drug.
- (V) None of the above options, but ____

Panel 2. Questionnaire

- 1. Did you or a relative ever suffer from a life-threatening disease? yes/no
- Have you ever received requests for euthanasia from patients? ("aktive Sterbehilfe"/" passive Sterbehilfe": yes/no) If "yes", how many times in the last ten years? ("aktive Sterbehilfe"/" passive Sterbehilfe": once/ 2-5 times/>5 times)
- 3. If you were asked by a patient to perform "Sterbehilfe" which of the following actions would be suitable for you? (I refuse / I perform "aktive Sterbehilfe" / I perform "passive Sterbehilfe" / I point out possible alternatives (e.g., palliative care) / I confer with collegues/nursing staff/patient's relatives/clericalists/others ______)
- 4. If you ever performed "Sterbehilfe": Do you think you were right in doing so? ("aktive Sterbehilfe"/" passive Sterbehilfe": yes/no/not sure, because _____)
- 5. Do you think the performance of "active / passive Sterbehilfe" by physicians is an acceptable way of acting? ("aktive Sterbehilfe"/" passive Sterbehilfe": yes under certain circumstances/no under no circumstances)
 Which of the following criteria are responsible for your decision? ("aktive Sterbehilfe"/" passive Sterbehilfe": To relieve the patient from pain/to allow a self determined death/to allow the patient to die with dignity/to relieve relatives from the burden of caring for a dying patient/to relieve the health care system/religious reasons/hippocratic oath/historical reasons (III: Reich)/legal reasons/satisfactory palliative medicine/possible medical misinterpretation/possible abuse/others ______)
- 6. If you do not generally reject the performance of "Sterbehilfe": which conditions could ease such a decision for you? ("aktive Sterbehilfe"/" passive Sterbehilfe": No prosecution/independent assessment by other doctors/repeated patient's wish/patient's wish in writing/approval by relatives/patient's rejection of palliative care/exclusion of psychiatric pathology/soundness of mind/restricted life expectancy (e.g. < 6 months)/uncontrollable pain/good knowledge or long patient care/minimum age, others ______)</p>
- 7. Do you think there is a difference in a moral sense between "aktiver Sterbehilfe" (e.g. the injection of a life-ending drug) and "passiver Sterbehilfe" (e.g. prescription and instruction of the patient how to take a drug to end life)? (yes, because _____)
- 8. Did you ever provide expedients for the performance of suicide? (yes/no/not sure, because
- Do you think a legal framework of "Sterbehilfe" is necessary in Germany? ("aktive Sterbehilfe"/" passive Sterbehilfe": yes/no/not sure, because _____)
- 10. Would you agree to perform "Sterbehilfe" if there would be a legal basis in Germany? ("aktive Sterbehilfe"/" passive Sterbehilfe": yes/no/not sure, because ______)
- 11. Which of the existing models regarding "Sterbehilfe" would you prefer? Netherlands Switzerland Germany (with explanations)
- 12 Do you think you were sufficiently confronted with dying and "Sterbehilfe" in your medical training? (yes/no)
- 13 Do you think the comparison between euthanasia in the 3rd Reich and the performance of "Sterbehilfe" nowadays is justifiable? (yes, because ______)

received and personal involvement in euthanasia using open-ended and multiple-choice questions allowing for single or multiple answers (Panel 2). Third, participants were asked to supply information about their personal situation (e.g. age, gender, religious affiliation, type of practice). GPs' attitudes towards euthanasia were assessed using a question asking GPs whether they thought that AVE or PAS performed by physicians was appropriate under certain circumstances.

Statistical analysis was performed with Statistical Analysis Software (SAS) 8.2 (SAS Institute Cary, NC, USA). Univariate comparisons were made using the chi-squared test or Fisher's exact test for categorical variables.

We set up a logistic regression analysis assuming that attitudes towards euthanasia have been influenced by GPs' personal characteristics and experiences. Factors that seemed reasonably important or were significant in univariate comparisons were included. GPs responses as to whether they thought PAS (or AVE in a second model respectively) would be an acceptable way for a physician to act (question 5), served as dependent variables. Independent variables for both AVE and PAS were GPs' personal involvement (whether they themselves or family members suffered from life-threatening illness and whether they had ever received requests for euthanasia). Additionally, we adjusted for age (categorised in quartiles), gender, marital status, children, religious affiliation, and whether GPs had medical experience in oncology or geriatrics. Backward selection was used with a 0.05 significance level for variable removal (likelihood ratio test). Odds ratios are given with 95% confidence intervals.

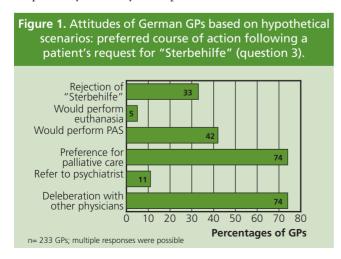
Results

Two hundred and thirty-three out of 481 eligible GPs replied (response rate: 48%). Nineteen questionnaires were returned unanswered because of a change of address, retirement or illness. Due to our study design, which guaranteed complete anonymity to the respondents, we could not perform a non-responder analysis.

The mean age of participants was 51 years (range 29-77 years), 68% were male, 80% were married and 84% had children. Thirty-three percent were Roman Catholic, 38% protestant (47% of both confessions described themselves as "not active" and 20% as "active") and 25% had no religious affiliation. Seventy-three percent of GPs worked in single-physician practices, and two-thirds stated that their relatives or they themselves had suffered from life-threatening illnesses. Characteristics of participants are summarised in Table 1.

Table 1. Characteristics of participating GPs		
Population (response rate)	n=233/481 GPs from Germany (48%)	
Age (mean)	51 yrs	(Range 29-77)
Gender	Male	n=157 (68%)
	Female	n=75 (32%)
Marital status	married or in partnership	n=190 (83%)
	single	n=17 (7%)
	divorced	n=16 (7%)
	widowed	n=5 (2%)
Children	with children	n=195 (84%)
	without children	n=37 (16%)
Religious affiliation	roman-catholic	n=76 (33%)
	protestant	n=89 (38%)
	other	n=8 (3%)
	none	n=59 (25%)
Religious involvement	active	n=38 (20%)
	sometimes active	n=64 (33%)
	not active	n=91 (47%)
Medical training/experiences *	Internal Medicine	n=168 (74%)
	Geriatrics	n=94 (42%)
	Oncology	n=70 (31%)
	Psychiatry	n=39 (17%)
	Other	n=124 (55%)
Years working as a physician	< 18 yrs	n=65 (28%)
	18 - 36 yrs	n=143 (62%)
	< 36 yrs	n=25 (11%)
Time in own practice (mean)	15 yrs	(Range 0,5-40)
Type of practice	Single-handed	n=171 (75%)
	Other	n=58 (25%)
Number of inhabitants in Practice area/ locality	< 10.000	n=85 (37%)
	11-50000	n=89 (38%)
	51-100.000	n=18 (8%)
	>100.000	n=40 (17%)
Size of practice (mean)	1,137 patients quarterly	(Range 100-3,000)
* More than one answer possible; total adds up to more than 100%.		

Responding to clinical vignettes (Figure 1), 33% of GPs' said they would not perform euthanasia (answer I) at a patient's request, whereas 5% were willing to perform AVE and 42% PAS. The performance of AVE and PAS was generally considered acceptable by 34% and 80% respectively. Seventy-nine percent deemed it unfair to

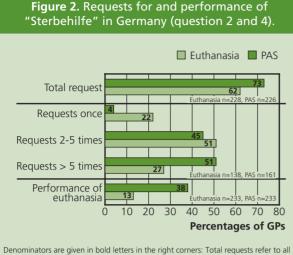


compare euthanasia in Germany today with euthanasia during the "3rd Reich".

Sixty-two percent of respondents had received requests for AVE and 73% for PAS at least once in their medical career. Figure 2 shows the reported frequency of such requests.

A majority of GPs would prefer a legal framework regarding AVE (50% of respondents) and PAS (59%). Eighteen percent of respondents stated that they would be willing to perform AVE and 59% PAS if appropriate legalisation existed.

The participating GPs were questioned about the rightness of their actions in the case that they had performed euthanasia before. This question was answered ("yes"–"no"–"not sure") by 13% regarding AVE and 38% regarding PAS, leading to the hypothesis that these GPs had already been involved in either or both at least once in their lives. Twelve percent and 97% respectively of those who answered were convinced that their actions had been right in a moral sense.

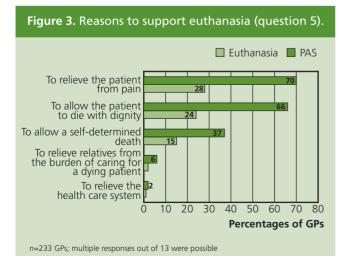


participating GPs who answered this question, those having received requests here to all participating GPs who answered this question, those having received requests were asked to answer the following question and to give frequencies. The performance of euthanasia has been estimated on basis of all participating GPs (see method section).

Main arguments to support euthanasia were to end a patient's pain and respect a patient's desire to die in dignity. The possibility of palliative care, the danger of misuse and the possibility of wrong medical estimations counted as the most important arguments against euthanasia. The main arguments are shown in Figures 3 and 4.

Legalisation of euthanasia would result in a significant change of attitudes: 6% and 5% (p<0.0001 each) of GPs who rejected euthanasia or PAS in the first place would be willing to perform it, if appropriate legalisation was in effect. Eighty-nine percent of all doctors felt they had insufficiently been confronted with the treatment of dying patients during medical training.

A logistic regression model was performed on 170 observations for GPs' attitudes towards AVE and 173 ob-



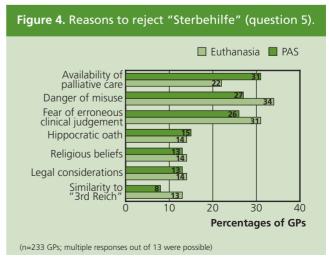
servations for their attitudes towards PAS. Sixty-three observations (60 for PAS respectively) were deleted because of missing values for the response or explanatory variables.

Concerning GPs' attitudes towards PAS, we found no influence of age, gender, marital status, religious affiliation, experience in oncology or geriatrics, or whether respondents themselves or their relatives had experienced life-threatening illness. GPs who had children were more than four times more likely to support PAS than those without (OR=4.59; [1.77–11.95]). GPs who had received requests for PAS than those who had not received such requests (OR=2.87; [1.22–6.73]). The more active doctors reported to be in religious matters ("not active"—"sometimes active"—"active"), the less likely they were to be in favour of PAS (OR=0.581; [0.345-0.979]).

We built a similar model with corresponding variables for AVE, but only one significant association was found: GPs who received requests for AVE in the past were twice as likely to support this action then those who were never asked (OR 2.36; [1.18-4.74]).

Discussion

Our results show that euthanasia and medical decisions at the end of a patient's life are issues of controversy among German family doctors. However, the majority of GPs in Germany favoured the palliative care of dying patients. The chamber of physicians has published clear guidelines against AVE and PAS, and the performance of euthanasia is illegal in Germany. Accordingly, the GPs in our study expressed fear of legal prosecution and the desire for a legal framework to regulate and guide the administration of AVE or PAS. The overall willingness to perform euthanasia rose significantly when it was assumed that appropriate legalisation was in place.



On the other hand our study gives evidence that requests for euthanasia are frequent in the daily practice of German GPs. Moreover, our results show that regardless of laws forbidding it, euthanasia takes place in Germany like in other countries. Thirteen percent and 38% of our participants reported their judgement of performed AVE and PAS leading to the hypothesis that they had already been involved in euthanasia. This is a higher proportion than reported in previous German investigations. Only a few investigations conducted in the UK²⁶ and the Netherlands²⁷ reported higher numbers in support of AVE or PAS.

In Germany, euthanasia has been investigated less extensively than in other countries. In our survey, we found a greater number of requests for AVE and PAS from patients and a greater number of physicians willing to perform or having already performed AVE or PAS compared to other surveys. However, this difference is not necessarily a German particularity, but might rather be an expression of recent secular trends in attitudes towards euthanasia and of reactions to legislative decisions around the world²⁸. A recent investigation including several European countries estimated the overall rate of all documented deaths due to AVE between 0 and 2.6% and due to PAS between 1% and 3.4%.

The main reasons for supporting euthanasia in our study had to do with patients' requests (freedom from pain and the right to have a self-determined death). Contrarily, the most important reasons for rejecting euthanasia were related to physicians' anxieties (danger of misuse and the risk of wrong clinical judgements). Regression modelling revealed religious activity as the most important variable associated with the rejection of PAS. There is no obvious explanation for our findings that GPs with children support PAS more strongly than childless physicians. Having received requests for AVE or PAS influenced doctors' attitudes significantly in favour of the corresponding action. However, this might be the result of a permissive attitude; strong ethical persuasions may be weakened by repeated requests for euthanasia.

Independent of their attitude towards euthanasia, the vast majority of GPs in our survey felt that they were not sufficiently trained to care for dying patients. Other investigations have shown that this lack of education is already evident in training at medical schools.²⁹

There is discussion about whether the special German history influences the attitudes of physicians towards euthanasia. As far as we can conclude from one single question on that topic, our results indicate that the atrocities of the "3rd Reich" play only a minor role in shaping the attitudes towards euthanasia in the self-estimation of German GPs. These findings are consistent with other studies reporting only little influence of the German Nazi history on the current euthanasia debate. $^{\rm 30,20}$

Our survey faces some limitations: Despite the random selection of our study sample, our survey is not necessarily representative for German GPs, since only a relatively small number of GPs participated (representing 0.5% of all German GPs). Other than previous German investigations^{16,18,19,20,23,21} our study included only family physicians, which might explain the higher proportion of respondents supporting euthanasia. GPs were asked to answer the questionnaire with respect to the two given definitions of AVE ("aktive Sterbehilfe") and PAS ("passive Sterbehilfe"). This might have caused a bias from GPs who ignored the given definitions and followed their own understanding of AVE and PAS. A greater awareness of legal barriers and the fact that potential respondents were contacted by mail only might have resulted in lower response rates than in former German studies. Finally, due to the possibility of prosecution and the fact that euthanasia is currently considered a criminal offence in Germany, our study may be subject to biased responses resulting in an underestimation of the support for euthanasia, or leading to an overestimation by an overrepresentation of proponents.

Conclusions

Requests for euthanasia occur frequently in the daily practice of German GPs. Whereas the majority of GP's are not willing to perform AVE or PAS under the current legislation, our data suggest that euthanasia takes place and is accepted by a number of physicians in Germany. The special German history under the "3rd Reich" contributes only little to the attitudes of German GPs towards euthanasia. Decisions at the end of life should be considered more frequently in GPs' medical training. Further multi-national investigations are required to allow a comparison between the attitudes of GPs towards AVE and PAS in different countries and under different legislative settings.

Acknowledgements

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Conflicts of Interest

None.

References

- 1 Doyal L, Doyal L. Why active euthanasia and physician assisted suicide should be legalised. *Br Med J* 2001;**323**:1079-80.
- 2 Emanuel EJ. Euthanasia. Historical, ethical, and empiric perspectives. *Arch Intern Med* 1994;154:1890-1.
- 3 Quill TE, Cassel CK. Professional organizations' position statements on physician-assisted suicide: a case for studied neutrality. *Ann Intern Med* 2003;138:208-11.
- 4 Chao DVK, Chan NY, Chan WY. Euthanasia revisited. *Fam Pract* 2002;19:128-34.

- 5 Emanuel EJ. Euthanasia and physician-assisted suicide. A review of the empirical data from the United States. *Arch Intern Med* 2002;162:142-52.
- 6 Maitra RT, Harfst A, Kochen MM, Becker A. The attitude of general practitioners towards euthanasia. An international survey [in German]. Z Allg Med 2002;78:68-74.
- 7 Van der Heide A, Deliens L, Faisst K, Nilstun T, Norup M, Paci E, Van der Wal G, Van der Maas P, on behalf of the EURELD consortium. End-of-life decision making in six European countries: descriptive study. *Lancet* 2003;362:345-50
- 8 Vollmann J, Herrmann E. Attitudes of Psychiatrists Toward Physician-Assisted-Suicide. A Review of Empirical Studies. *Fortschr Neurol Psychiat* 2002;70:601-8.
- 9 Ganzini L, Nelson, HD, Lee MA, Kraemer DF, Schmidt TA, Delorit MA. Oregon physicians' attitudes about and experiences with endof-life care since passage of the Oregon Death with Dignity Act. J Am Med Ass 2001;285:2363-9.
- 10 Ryan CJ, Kaye M. Euthanasia in Australia the Northern Territory Rights of the Terminally Ill Act. N Engl J Med 1996;334:326-8.
- 11 Verhoef MJ, Van der Wal G. Euthanasia in family practice in the Netherlands. Toward a better understanding. *Can Fam Physician* 1997;43:231-7.
- 12 Nilstun T. Melltorp G, Hermerén G. Surveys on attitudes to active euthanasia and the difficulty of drawing normative conclusions. *Scand J Public Health* 2000;28:111-6.
- 13 Quante M. Passive, indirect and direct active euthanasia descriptive and ethical solid distinctions [in German]? *Ethik Med* 1998;10:206-20.
- 14 German Chamber of Physicians. Principles of the German Chamber of Physicians regarding end-of-life care [in German]. *Dtsch Ärztebl* 2004;101:A-1298-9.
- 15 Gahl K, Kintzi H. Medical indication for inducing death? [in German] *Dtsch Med Wschr* 2002;**127**:866-9.
- 16 Bühler E. Kren R. Assistance in dying-attendance in dying-patients testomony. [in German] *Bt Prax* 2002;6:232-7.
- 17 Csef H, Heindl B. Attitude towards "physician assisted suicide" among German doctors: results of a representative enquiry in the district of Würzburg [in German]. *Dtsch Med Wschr* 1998;123:1501-6.
- 18 Dornberg M. Withdrawal and withholding of treatment and euthanasia from the viewpoint of hospital doctors in internal medicine. Results of an inquiry and ethical judgement [in German]. Medical thesis, Freiburg 1997.

- 19 Kirschner R, Elkeles T. Patterns of performance by German physicians and their opinions regarding euthanasia [German]. *Gesundheitswesen* 1998;60:247-53.
- 20 Mueller-Busch HC, Klaschik E, Onuncu F, Schindler T, Woskanjan S. Euthanasia and Unbearable Suffering? A Survey by the German Association for Palliative Medicine (DGP) in 2002. [in German] Z Palliativmed 2003;4:75-84.
- 21 Van Oorschot B, Lipp V, Tietze A, Nickel N, Simon A. Attitudes on euthanasia and medical advance directives: results of a survey by questionnaire among 727 physicians. [in German] *Dtsch Med Wschr* 2005;130:261-5.
- 22 Van Oorschot B, Dreßel G, Erdmann B, Hausmann Ch, Hildenbrand B. Dying and Death in Thueringen. [in German] *Zschr Palliativmedizin* 2002;3:30-3.
- 23Weber M, Stiehl M, Reiter J, Rittner C. Careful weighing in each situation. Results on an inquiry in Rheinland-Pfalz [in German]. *Dtsch Ärztebl* 2001;**98**:A3184-8.
- 24 Brody H. Assisted suicide: a challenge for family physicians. *J Fam Pract* 1993;37:123-5.
- 25 Mc Glade K, Slaney L, Bunting BP, Gallagher AG. Voluntary euthanasia in Northern Ireland: general practitioners' beliefs, experiences, and actions. Br J Gen Pract 2000;50:794-7.
- 26 Vollmann J, Herrmann E. Attitudes of Psychiatrists Toward Physician-Assisted-Suicide. A Review of Empirical Studies. Fortschr Neurol Psychiat 2002;70:601-8.
- 27 Van der Maas PJ, Van Delden JJM, Pijnenborg L, Looman CWN. Euthanasia and other medical decisions concerning the end of life. *Lancet* 1991;338:669-74.
- 28 Onwuteaka-Philipsen BD, Van der Heide A, Koper D, Keij-Deerenberg I, Rietjens JAC, Rurup ML, Vrakking AM, Georges JJ, Muller MT, Van der Wal G, Van der Maas P. Euthanasia and other end-of-life decisions in the Netherlands in 1990, 1995, and 2001. *Lancet* 2003;362:395-9.
- 29 Weber M, Stiehl M, Reiter J, Rittner C. Careful weighing in each situation. Results on an inquiry in Rheinland-Pfalz [in German]. *Dtsch Ärztebl* 2001;98:A3184-8.
- 30 Leichtentritt RD, Rettig KD, Miles SH. Holocaust survivors' perspectives on the euthanasia debate. *Soc Sci Med* 1999;185-196.