

## Attitudes of Chinese Oncology Physicians Toward Death with Dignity

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### Abstract

**Background:** Death with dignity (DWD) refers to the refusal of life-prolonging measures for terminally ill patients by “living wills” forms in advance. More and more oncology physicians are receiving DWD requests from advance cancer patients in mainland China.

**Objective:** The study objective was to investigate the attitudes of Chinese oncology physicians toward the legalization and implementation of DWD.

**Methods:** A questionnaire investigating the understanding and attitudes toward DWD was administered to 257 oncology physicians from 11 hospitals in mainland China.

**Results:** The effective response rate was 86.8% (223/257). The majority of oncology physicians (69.1%) had received DWD requests from patients. Half of the participants (52.5%) thought that the most important reason was the patients’ unwillingness to maintain survival through machines. One-third of participants (33.0%) attributed the most important reason to suffering from painful symptoms. Most oncology physicians (78.9%) had knowledge about DWD. A fifth of respondents did not know the difference between DWD and euthanasia, and a few even considered DWD as euthanasia. The majority of oncology physicians supported the legalization (88.3%) and implementation (83.9%) of DWD.

**Conclusions:** Many Chinese oncology physicians have received advanced cancer patients’ DWD requests and think that DWD should be legalized and implemented. Chinese health management departments should consider the demands of physicians and patients. It is important to inform physicians about the difference between DWD and euthanasia, as one-fifth of them were confused about it.

### Introduction

HOW TO HAVE A “GOOD DEATH” has become a hot topic.<sup>1–3</sup> Although terminal cancer patients could continue living by artificial respiration and cardiopulmonary resuscitation, many of them suffer a variety of painful symptoms and very poor quality of life.<sup>3</sup> This has led to the concept of “death with dignity” (DWD)—the request to stop the medical measures extending their lives and to let them die with calm and dignity.

This concept of DWD has different definitions in different countries.<sup>4,5</sup> For example, in the United States, DWD is

commonly associated with the Death with Dignity Act (DWDA), which allows physicians to prescribe a lethal dose of secobarbital that the patient could self-administer.<sup>6</sup> Joseph indicated that the essence of the DWDA is indeed physician-assisted suicide.<sup>7,8</sup> Some countries consider the DWDA as euthanasia and not DWD.<sup>4,8</sup>

The Science Council of Japan published a report on DWD in 1994 that defined it as the withdrawal or withholding of life-prolonging measures if the patient was terminally ill and expressed an intention to withdraw or withhold such measures in advance.<sup>4</sup> Taiwan has a similar definition,<sup>9</sup> although the term “do-not-resuscitate” (DNR) is preferred. This may

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be because of some similarities in cultural background between Japan and Taiwan, including mainland China.<sup>10-13</sup>

During the late 1990s, Reverend Chuck Meyer advocated changing DNR into “allow-natural-death” (AND),<sup>14</sup> reflecting an end-of-life philosophy of providing comfort.<sup>15,16</sup> In fact, the Natural Death Act (NDA) had already been made law in California in 1977, after which approximately 40 other states in the United States made similar legislation.<sup>17</sup> The law established the right of a patient to demand his or her physician to withdraw or withhold life-sustaining procedures during terminal illness.<sup>18</sup>

In mainland China, a patient confirms a DWD request by filing in “living will” forms in advance. This procedure gives the patient the right to refuse some life-prolonging measures at the end of life.<sup>19</sup> Thus, DWD in mainland China is similar to AND or NDA in America, DNR in Taiwan, and DWD in Japan.

In recent years, an increasing number of Chinese advanced cancer patients have asked for DWD, but this concept is not clearly supported by the current laws in mainland China.<sup>20,21</sup> Chinese physicians face a dilemma,<sup>22,23</sup> as Chinese culture is deeply influenced by Confucian thoughts,<sup>10,11,24,25</sup> and it is taboo to discuss death. Consequently, it is important to investigate Chinese oncology physicians’ attitudes toward DWD in order to facilitate its legislation and implementation.

## Methods

After discussion with three oncology and palliative care experts, we designed a special questionnaire to investigate Chinese oncology physicians’ attitude toward DWD. We based this questionnaire on a cross-sectional study. Prior to administration, the current questionnaire was pilot tested among 12 oncology doctors to ensure that it was easy to understand.

The questionnaire included 9 items on respondents’ demographic characteristics and 12 items on their understanding and attitudes toward DWD. In order to avoid any misunderstanding, we gave the definition of DWD in the questionnaire as follows: Confirmed by a “living will” form in advance, the patient refuses life-prolonging measures and accepts only those that would create comfort at the end of life.<sup>19</sup> The overall Cronbach’s alpha for the questionnaire was 0.75; when individual items were deleted one at a time, the resulting Cronbach’s alpha was always more than 0.70.

Eleven oncology departments in two university hospitals, four tertiary general hospitals, and five urban general hospitals were involved. These hospitals were distributed across seven different regions of mainland China,<sup>26,27</sup> including one from East China, one from North China, two from Southern China, one from Central China, one from Northeast China, three from Southwest China, and two from Northwest China. The smallest hospital had more than 300 patient beds including 30 oncology beds, and the largest had 4800 patient beds including 500 oncology beds. All participants were oncology specialists. Physicians who signed the informed consent form were included. Those who worked less than one year or did not sign the informed consent form were excluded.

The questionnaires were distributed to all eligible physicians. Participants were asked to complete it anonymously and independently. All records were collected and put into a

computer database. All data were analyzed using descriptive analyses by a researcher who was not involved in the data collection. Furthermore, the Mann-Whitney U test and Kruskal-Wallis test were used to analyze associations between demographic characteristics and understanding and attitudes towards DWD. All statistical analyses were processed by SPSS 18.0 (IBM, Armonk, NY). *P*-values <0.05 were considered significant.

## Results

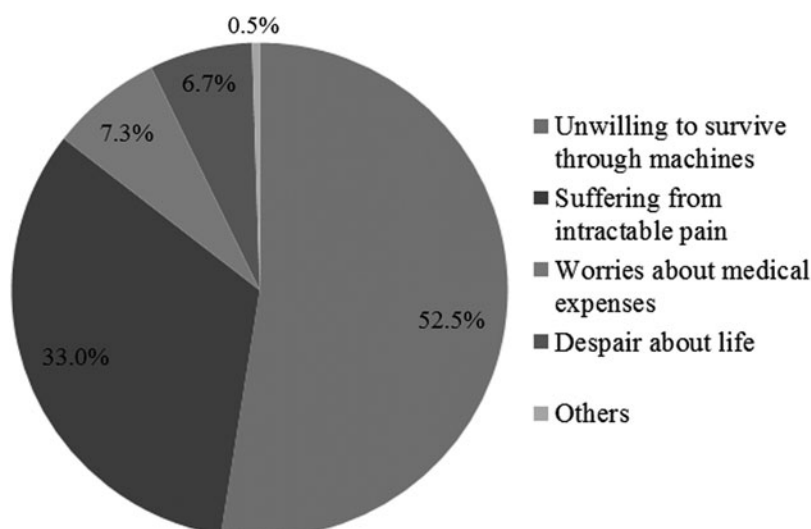
Of 257 oncologists contacted, 223 completed the questionnaire. The effective response rate was 86.8%. The characteristics of the physicians are summarized in Table 1. Participants’ median age was 33 years (range: 23–62 years) and the standard deviation (SD) was 8.7 years.

Most of the participants (154/223, 69.1%) had received patients’ DWD requests. The most important reasons for DWD requests are shown in Figure 1. Physicians with higher professional titles (*p*=0.002), more work experience

TABLE 1. CHARACTERISTICS OF THE ONCOLOGY PHYSICIANS (*n*=223)

| Characteristic                    | Number | %    |
|-----------------------------------|--------|------|
| Age (years)                       |        |      |
| ≤30                               | 79     | 35.4 |
| >30                               | 144    | 64.6 |
| Gender                            |        |      |
| Male                              | 98     | 44.0 |
| Female                            | 125    | 56.0 |
| Ethnicity                         |        |      |
| Han                               | 215    | 96.4 |
| Other                             | 8      | 3.6  |
| Marital status                    |        |      |
| Married                           | 161    | 72.2 |
| Single                            | 62     | 27.8 |
| Religiousness                     |        |      |
| With                              | 25     | 11.2 |
| Without                           | 198    | 88.8 |
| Education                         |        |      |
| Bachelor’s degree                 | 121    | 54.3 |
| Master’s or doctor’s degree       | 102    | 45.7 |
| Professional title                |        |      |
| Junior                            | 78     | 35.0 |
| Middle                            | 75     | 33.6 |
| Senior                            | 70     | 31.4 |
| Been an oncology physician for    |        |      |
| Five years or less                | 102    | 45.7 |
| More than five years              | 121    | 54.3 |
| Monthly income (USD) <sup>a</sup> |        |      |
| ≤967.7                            | 155    | 69.5 |
| >967.7                            | 68     | 30.5 |
| Is him/herself a cancer patient   |        |      |
| Yes                               | 5      | 2.2  |
| No                                | 218    | 97.8 |
| Has relatives with cancer         |        |      |
| Yes                               | 64     | 28.7 |
| No                                | 159    | 71.3 |

<sup>a</sup>USD 967.7=RMB 6000.



**FIG. 1.** Percentage of answers to the question, "Which is the most important reason for patients making a request for death with dignity?"

( $p < 0.001$ ), and who were older ( $p < 0.001$ ) received more DWD requests.

The understanding of participants toward DWD, including whether DWD was equivalent to euthanasia, is shown in Table 2. Those with more work experience ( $p < 0.001$ ) and higher professional titles ( $p < 0.001$ ) had a better understanding of DWD. Married physicians ( $p = 0.004$ ) and those who were religious ( $p = 0.012$ ) understood DWD better. Most physicians (166/223, 74.4%) did not consider DWD as euthanasia (see Table 2).

The attitudes of oncology physicians toward the legalization and implementation of DWD are shown in Table 2.

**TABLE 2. ONCOLOGY PHYSICIANS' ATTITUDE TOWARD DEATH WITH DIGNITY**

| Questions and answers  | Number | %    |
|--|--------|------|
| How much do you know about DWD?  |        |      |
| Not at all   | 47     | 21.1 |
| Know something   | 114    | 51.1 |
| A lot  | 62     | 27.8 |
| Do you think that DWD is equivalent to euthanasia?                       |        |      |
| Yes  | 10     | 4.5  |
| No   | 166    | 74.4 |
| Unsure   | 47     | 21.1 |
| Should DWD be legalized for terminal cancer patients?                    |        |      |
| Yes  | 197    | 88.3 |
| No   | 26     | 11.7 |
| Would you implement DWD for terminal cancer patients now?                |        |      |
| Yes  | 178    | 79.8 |
| No   | 32     | 14.4 |
| Unsure   | 13     | 5.8  |
| Would you implement DWD for terminal cancer patients after legalization? |        |      |
| Yes  | 187    | 83.9 |
| No   | 36     | 16.4 |

DWD, death with dignity.

Physicians' attitudes were not associated with age, gender, nationality, marital status, religion, education, professional title, work experience, or income. In addition, the attitudes were not influenced by themselves or their family having cancer ( $p > 0.05$ ).

The most important reasons for oncology physicians supporting or rejecting DWD are shown in Table 3.

### Discussion

Most oncology physicians (69.1%) in mainland China have received DWD requests from advanced cancer patients (see Fig. 1). A retrospective review of 829 cancer inpatients indicated that the signing rate of DNR orders reached 99.8%

**TABLE 3. REASONS FOR ONCOLOGY PHYSICIANS' "YES" OR "NO" ANSWERS TOWARD DEATH WITH DIGNITY**

| Questions and answers   | Number  | %    |
|---|---------|------|
| The most important reasons for "yes"  |         |      |
| Respect patient's autonomy  | 109/199 | 54.8 |
| Maintain dignity of the patient   | 55/199  | 27.6 |
| Appropriate treatment for terminal cancer patient                               | 17/199  | 8.6  |
| Fair and reasonable use of medical resources                                    | 9/199   | 4.5  |
| Reduce social and family burdens  | 7/199   | 3.5  |
| Other   | 2/199   | 1.0  |
| The most important reasons for "no"   |         |      |
| Do not conform to the principle of "healing the wounded and rescuing the dying" | 6/43    | 14.0 |
| Might meet opposition from patient's family                                     | 4/43    | 9.3  |
| Risk of medical disputes  | 10/43   | 23.3 |
| May shorten the survival of the patient   | 3/43    | 6.9  |
| Could be used to "kill" patients  | 22/43   | 51.0 |
| Other   | 4/43    | 9.3  |

in Taiwan.<sup>9</sup> The percentage difference is probably partly due to improvements in palliative medicine consultations.<sup>28</sup>

Most physicians thought the most important reason for a DWD request was the patients' unwillingness to rely on machines to maintain their survival (see Fig. 1). This is probably because patients did not want to be a burden to others.<sup>29</sup> One-third of the participants thought the most important reason was an unwillingness to suffer from unbearably painful symptoms, which is related to underdeveloped palliative medicine.<sup>30</sup> Indeed, many primary hospitals in mainland China still do not have basic analgesic drugs such as oral morphine, and their doctors know little about the standard three-step analgesic ladder.<sup>31,32</sup>

Although most participants are familiar with DWD, a fifth of respondents did not know the difference between DWD and euthanasia; a few even considered DWD as euthanasia (see Table 2). This lack of knowledge led them to express reservations about the legalization of DWD and to worry about "killing" patients (see Table 3). This misunderstanding is evident even in the United States, where AND has been legalized for many years, and where medical staff had insufficient knowledge regarding the law.<sup>5,33</sup> Therefore, it is necessary to educate medical staff.

The majority of participants supported the legalization and implementation of DWD (see Table 2). Only eight participants in the current study were of 'Other' ethnicity and they all agreed with DWD, which may be related to their religious beliefs.<sup>34-37</sup> Although the Legislative Yuan of Taiwan enacted the Hospice and Palliative Regulation that included the implementation of DWD in 2000,<sup>9</sup> current laws in mainland China still do not clearly empower physicians to comply with patients' DWD requests, as family members' consent is also required.<sup>20,21</sup> Patients' families tend to conceal the truth of diagnosis and prognosis<sup>38</sup> and want to prolong patients' lives as much as possible. Thus, DWD legalization would be necessary and give patients more autonomy on the medical measures to implement at the end of life (see Table 3).

In addition to health care policy, the major differences between mainland China and Taiwan may result from "the productivity of the health workforce, in particular doctors and nurses, which are the cornerstone of the health care system."<sup>39</sup> In 2013, Taiwan had 1.80 doctors and 6.03 nurses per 1000 population, which was higher than mainland China, with 1.65 doctors and 2.01 nurses per 1000 population. Moreover, mainland China's total health care spending per capita was only \$508 USD—adjusted for purchasing power parity (PPP)—far less than Taiwan's \$2,479 USD PPP.<sup>39,40</sup> Three foundations with religious affiliations have also played an important role in the development of palliative care in Taiwan.<sup>41</sup>

As the doctor-patient relationship is rather tense in mainland China,<sup>42-45</sup> it is reasonable that some physicians are afraid of the risk of medical disputes in implementing DWD (see Table 3). However, we believe that DWD implementation could give the patient and family more humane care and help to moderate the relationship between doctors and patients.

This study is limited to oncology physicians. Further investigations are needed for oncology nurses, cancer patients, and their families. Adding validated assessment of filial piety (i.e., virtue of respect for one's father, elders, and ancestors) needs to be considered, as this aspect might be important.

In conclusion, this study found that Chinese oncologists often received DWD requests, and most physicians support

DWD legalization in mainland China. Thus, health management departments need to consider relevant DWD laws and DWD legalization. Because one-fifth of oncology physicians were confused about DWD and euthanasia, it is important to educate them about the crucial difference between DWD and euthanasia. Lastly, it is necessary to accelerate the development of palliative care to alleviate terminal patients' suffering.

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