Singapore Med J 1997; Vol 38(4):145-148

Advance Directive: A Study On The Knowledge And Attitudes Among General Practitioners in Singapore

K H Tee, L T Seet, W C Tan, H W Choo

ABSTRACT

Recent calls for the Advance Directive (AD) to be implemented in Singapore have raised issues regarding the dearth of knowledge and attitude among local healthcare professionals. The present study aims to find out the attitudes and to assess the extent of knowledge regarding the AD among General Practitioners (GPs) in Singapore. This was a cross-sectional, descriptive survey with a sample size of 199 doctors randomly drawn from the Singapore Medical Council list, forming a sampling fraction of 16%. The response rate obtained was 78%. The results showed that while GPs generally supported the concept of the AD, their views were divided on the issue of legislation. They had a basic knowledge of the AD, such as the definition of the AD, that it could be revoked, and the continuity of care and pain relief even after withdrawal of life-sustaining measures. However, only half knew when it should be executed. Many GPs were concerned that the legislation of the AD would lead to the acceptance of euthanasia. They believed that they were in the best position to decide on the treatment of choice for their patients, although they would respect their patients' wishes.

Keywords: legislation, euthanasia, religion, implementation, life sustaining measures

INTRODUCTION

The Advance Directive (AD) is a document that enables a competent individual to specify the form of healthcare that he or she would like to have in the event that the person is unable to make such decisions in the future[1]. It usually specifies that any medical or surgical procedures that are intended to sustain life be withheld or withdrawn. This should happen when the declarant no longer has the capacity to make treatment decisions, usually in the terminal phase of illness with no chance of recovery[2].

Occasionally, the AD has been taken up to specify that life sustaining procedures be prolonged for as long as possible[3,4].

The AD has been a subject of much debate in Singapore since it was first mentioned in Parliament in connection with the White Paper on Affordable Health Care in 1993. With the Government's acceptance of the National Medical Ethics Committee's proposals in July 1995, it appears that the AD will be an important aspect of complete patient management soon. Furthermore, doctors would play a vital role as one of two witnesses required during the signing of the AD, as well as advising their patients on it. Yet, limited work has been conducted locally to gather information on the attitudes of healthcare providers, or to evaluate the practicality of implementing the AD in Singapore.

It is with this view that a group of undergraduates at the National University of Singapore (NUS) decided to undertake a study as part of their community health project under the Department of Community, Occupational and Family Medicine.

The objectives of the study were to evaluate the attitudes of General Practitioners (GPs) regarding their views on the AD and to assess the extent of their knowledge in this issue. GPs were selected because they are supposed to initiate and advise on the AD. Furthermore, common misconceptions could be identified to allow the relevant authorities to concentrate on these areas, facilitating a more rapid and complete understanding of the AD among doctors.

Thus far, the knowledge and opinions on the AD have been drawn largely from studies conducted in America and Europe. These may not be a true reflection of the local situation as Singapore is an ethnically and religiously diverse society. The social and cultural background of Singaporeans are also different from that of the West. This study also attempts to identify possible factors which could contribute to the acceptance or rejection of the AD in Singapore.

METHODS

This was a cross-sectional, descriptive study with the target population being all GPs in Singapore. All doctors practising in private GP clinics, with a basic medical degree (including those with postgraduate qualifications) and listed in Part 1 of the September 1994 Singapore Medical Council (SMC) list, were considered eligible for the study. Doctors practising as specialists in a GP clinic or private hospitals, as well as those without a separate clinic and residence address were excluded from the study. The sampling frame consisted of 1,263 doctors, from which a 16% random sample was taken, giving a sample size of 202 doctors. The sample size of 16% was arrived as a result of targetting 200 doctors. No attempts were made to stratify or further classify different categories of doctors.

Faculty of Medicine
National University of Singapore
Kent Ridge Crescent
Singapore 119074

K H Tee
Medical Student (Class of 1992-1997)

L T Seet
Medical Student (Class of 1992-1997)

W C Tan
Medical Student (Class of 1992-1997)

H W Choo
Medical Student (Class of 1992-1997)

Correspondence to:
Mr K H Tee
c/o Dean's office
Faculty of Medicine
National University of Singapore

The survey instrument used was a questionnaire, which consisted of three main sections - personal biodata, knowledge and attitude. The knowledge section comprised seven questions requiring a True/False response and one multiple-choice question. Attitudes on issues such as patient's rights, proxy system, legalisation, euthanasia, healthcare costs, initiation of discussion of AD and doctor's personal preference were assessed through agreement on ten statements scaled from 1 (strongly disagree) to 4 (strongly agree), as well as twelve multiple-choice questions. Included in the section on personal biodata were information pertaining to the year of completion of basic medical degree, number of years of medical experience as a GP and estimated number of terminally ill patients managed in the past one year.

Survey forms were distributed to the individual doctors by hand. Each doctor was given 2 days to complete the form. For those who were unable to complete the questionnaire in the stipulated time for various reasons, a further extension of 2 days was granted. Collection of the survey forms was done personally by the respective interviewers.

Non-response was divided into non-contactable and refusal to answer the questionnaire. A doctor was deemed non-contactable if: (a) he/she was overseas or on leave for the duration of the survey; (b) he/she had resigned from the clinic, and the clinic staff could not provide the interviewer with the current workplace of the doctor; or (c) the clinic listed had relocated, and the new address/telephone number unknown.

Refusal to answer the questionnaire was defined as: (a) one direct refusal either from a face to face meeting by the interviewer with the doctor in question, or conveyed through the clinic staff or (b) two refusals from the clinic staff on separate occasions to even let the doctor take a look at the questionnaire.

A comparison was made between the 156 respondents and 43 non-respondents using the following information - the number of years of practice after attaining MBBS (from the SMC list), gender and ethnic group (from the interviewers). No significant difference was detected between the two groups regarding ethnic group and number of years of practice.

Data analysis

Data processing was carried out using the statistical software SPSS-Windows (Version 6.0). For the knowledge questions (Section 1 of questionnaire), marks were allocated as follows: 1 mark for a correct answer, 0 mark for an unsure answer and 1 mark deducted for an incorrect answer. Equal weightage was given to each question because all were of equal importance to the understanding of the concept of the AD. The range of possible knowledge score was thus from -9 to 9.

For the assessment of factors affecting attitude, the respondents were divided into two groups based on their answers to four representative statements chosen from the questionnaire: (a) Patients should have the right to decide on medical treatment through an AD; (b) Doctors would have greater confidence in making treatment decisions in accordance with patients' wishes if guided by an AD; (c) Having an AD would reduce family discord over decisions to withdraw/withhold life-sustaining measures; and (d) Widespread acceptance of the AD may not lead to less aggressive treatment of patients who do not have an AD. GPs who answered 'agree' or 'strongly agree' to three or more of the above statements were classified to be in support of the AD. Disagreement with 2 or more of the statements was taken to mean that the GP was against the AD.

RESULTS

Demographic data

Of the 202 doctors in the sample, three were ineligible because they did not fulfil the inclusion criteria (one doctor was a hospice director while the other two doctors were specialists practising in GP clinics). From the final sample of 199 doctors, there were 43 non-respondents, 25 being non-contacts and 18 being refusals, resulting in a non-response rate of 21.6%. Of the 174 contactable doctors, 139 were males and 35 were females. The refusal rates for male and female doctors were 7.9% (11/139) and 20% (7/35) respectively.

The study population consisted of mainly males and Chinese, with a median age of 41 years. Catholics and Christians made up about half of the respondents, with the rest being Buddhists, Taoists, Muslims, Hindus or free-thinkers. Respondents had a median of 12 years experience practising as a GP but about two-thirds managed only 6 or fewer terminally ill patients in the past 1 year (Table I).

Table I - Demographic data of the study population

Parameter	Description	Value	Percentage
Age (years)	• Mean	43.9	-
	• Median	41	-
	• Range	29-71	-
Gender	• Male	128	82.1
	• Female	28	17.9
Ethnic Group	• Chinese	146	93.6
	• Malay	2	1.3
	• Indian	6	3.8
	• Others	2	1.3
No. of years as GP	• Mean	14.5	-
	• Median	12	-
	• Range	1-42	-
No. of terminally-ill patients seen last year	• 6 or fewer	98	62.8
	• 7 to 100	42	26.9
	• Unable to recall	16	10.3

Fig 1 - Percentage of correct responses for the individual knowledge questions

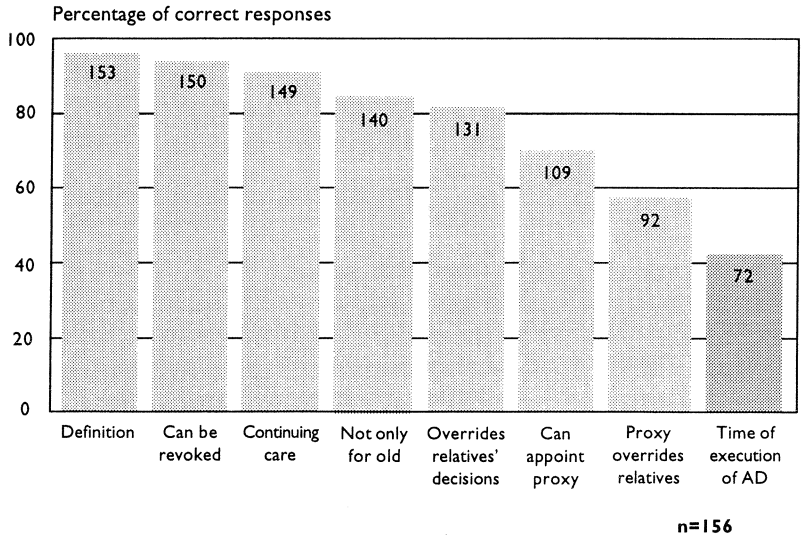


Table II - Correlation between the fear of euthanasia and the need for legislation

		Advance directive will lead to euthanasia		
	Number (Row %)	Yes	No	Total
Need for Legislation	Yes	20 (35.7%)	36 (64.3%)	56 (100%)
	No	33 (73.3%)	12 (26.7%)	45 (100%)
		53 (52.5%)	48 (47.5%)	101 (100%)

$\chi^2 = 14.15$ $p < 0.01$

Knowledge

Knowledge scores of the GPs ranged from -2 to 9 with a median score of 7. On detailed analysis, it was noted that the majority of GPs had some basic knowledge of the AD with regards to its definition, that it could be revoked by the patient, and its coverage to include not only elderly patients. They also knew that care and pain relief should still be provided even when life-sustaining measures are discontinued. However, approximately half of the respondents did not know when the AD should be executed ie at the time of mental incapacity from the terminal illness (Fig 1).

Nevertheless, a larger proportion of GPs were aware that a patient can appoint a proxy to make decisions on his behalf as well as the power of the proxy in overriding relatives' decisions.

Attitudes

It was noted firstly that there was no dominant consensus regarding the need for legislation of the AD as can be seen from Fig 2 . Secondly, there was a real fear that acceptance of the AD would lead to the practice of euthanasia (Table II). The majority of GPs who objected to legislation thought the AD would lead to euthanasia (73.3%).

Furthermore 70.0% of respondents who agreed to have legislation for the AD felt that moral obligation to the patient would be changed to a legal one. Interestingly, about the same proportion of GPs (70.0%) who supported legislation disagreed that conflict among relatives would arise if the AD was not legalised.

More than two-thirds of the GPs (70.0%) felt that they were in a better position to decide on the appropriateness of withholding life-sustaining treatment but would still respect the patient's wishes.

About a third of the respondents (35.3%) believed that the family physician should initiate discussion on the AD with their patients, but of these only 67.3% would do so themselves (25.4% would not initiate while 7.3% were unsure).

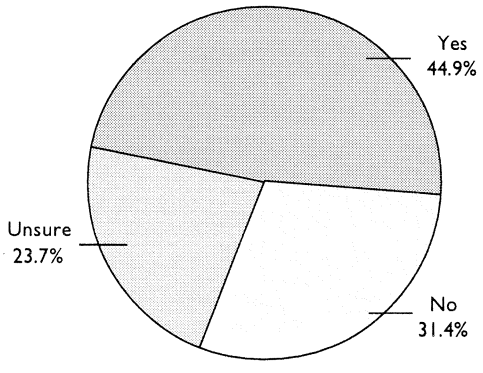
Regarding the timing of first discussion on the AD, 42.3% of doctors thought that it should be started while the patient was still healthy, while 30% felt it should be at the point of diagnosis of terminal illness. The best place for such discussion was deemed to be in the clinic (35.3%), followed closely by the patient's home (30.8%).

Factors affecting attitude

On assessing factors which may influence attitude towards the AD, it was noted that the majority of GPs (82.7%) were in support of the concept of the AD. Among doctors who saw more than 6 terminally ill patients in the past 1 year, 26.2% were against it, while for doctors who saw fewer than 6 such patients, only 15.0% opposed the AD. Amongst the Catholic and Christian doctors, 21.6% were against it compared to doctors from other religions of whom only 13.4% had similar opinions. These results were, however, not statistically significant.

It was noted that the scores were associated with attitudes. An overwhelming majority (95%) of doctors with knowledge scores of more than 5 were supportive of the AD. In addition, those who were supportive of the AD had a higher median score of 5 as compared to those who were not in favour (median score of 3). This result was observed to be statistically significant by Wilcoxon Rank Sum Test.

Fig 2 - Opinions of doctors on the need for legislation of the Advance Directive



DISCUSSION

As GPs are the front-line medical professionals who are directly involved in the discussion of the AD with the patient, they must therefore be clear of its scope and the practical aspects involved in the management of such a patient. Evidently, there is a pressing need for further education of both the doctor and the general public.

With divided opinions towards the necessity for legislation, reasons that could affect their views included fear of abuse of the AD progressing to euthanasia, erosion of the doctor's moral values under the guise of legal constraints and finally whether conflicts with relatives may be avoided if patient's wishes are made legally binding.

Although the majority of supporters of legislation (70%) felt that moral obligation to the patient could be changed to a legal one, avoiding conflict among relatives was however not thought of as the main advantage.

Encouragement of more patient autonomy in health care decisions has to be tempered by the educated and objective advice of the doctor, as patients are more likely to be ruled by emotions, finances or even relatives' influence[5].

It was also noted from the issue of whom to initiate discussion of the AD that certainly, individual beliefs and practical choices, which often are complicated by personal and external factors, may not always be consistent. Even timing and the location for such a discussion cannot be agreed upon as doctors are fully aware that circumstance and environment contribute to a patient's receptiveness towards the AD.

An interesting factor seen affecting attitude is that increased exposure to terminally ill patients may play a role towards objection to the AD. Reasons behind this could be because of the satisfaction in the adequacy of present day consensus gathering with family members or simply due to fear of foreseeable inconvenience and implications of the AD. Other important factors such as religion merely reiterated that comparatively fewer Catholic and Christian doctors are for the AD, echoing the stand taken by the general Catholic and Christian community in Singapore.

Understandably, there was an association noted between increased knowledge of the AD, as reflected by higher scores, and the attitude towards support of it.

It is to be noted that the present study was limited by the relatively small sample size because of logistic reasons. In addition, the scope of the topic was too wide to cover every aspect of the AD in the investigation. The choice of a simple random sampling method would mean that the number of female GPs and those in the minority ethnic groups were too few for a meaningful examination of their knowledge and attitudes towards the AD. Furthermore, there could be some degree of interviewee bias with regards to time allocation for questionnaire completion. Some doctors feared breach in confidentiality despite verbal and written assurance given, and thus may not have truly reflected their own attitudes but rather that which they perceived to be the "correct" mainstream attitude.

The evolution of the AD to one that could suit the local context, if at all needed, is still fraught with many unresolved aspects. Further studies should therefore be conducted on doctors working in hospitals as this may reveal a different viewpoint, for they would be the ones directly involved in the execution of the AD. Ultimately, the general public, for whom the AD is meant to serve, should be surveyed extensively to gather valuable information regarding their knowledge and attitudes towards the matter, so as to better utilise the merits of the AD.

CONCLUSION

From the study, it could be concluded that the GPs surveyed had a basic knowledge of the AD, but over 50% did not know when it was to be executed. While most doctors supported the concept of having an AD, their views were divided on whether legislation was necessary and they were also concerned that this could be a stepping stone towards acceptance of euthanasia. They believed that they were in the best position to decide on treatment of choice for their patients although they would still respect their patients' requests.

ACKNOWLEDGEMENTS

The following were members of Group 2B 1995, class of '92/97, Faculty of Medicine, National University of Singapore (NUS) who took part in the community health project:

Ang Corey Damien, Ang Guan Lee, Ashraff Bin Abdullah Samsudin, Chan Miow-Swan, Chong Keen Wai, Chong Kian Chun, Chua Swee Boon, Lam Poh Huat, Lee Meng Kam Richard, Lim Tian Jin, Lim Wee Ni, Ng Lai Peng, Rajendra Tiruchelvarayan, Siow Woei Yun, Tan Shen-Li, Tan Thuan Tong, Tan Tze Siong, Teng Gim Gee, Upu Jazlan Shah Bin Joosoph, Yap Soon Boon Raymond and Yuen Heng Wai .

We would like to express our gratitude to Prof Lee Hin Peng, Head, Department of Community, Occupational and Family Medicine, NUS, for encouragement and support; Dr Hong Ching Ye and A/Prof Ong Choon Nam for their invaluable guidance and to all general practitioners who took part in the survey for their participation and invaluable time spent.

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