



Obstacles to organ donation

– a health technology assessment perspective on the views of the personnel of intensive care units

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Usually obstacles to organ donation are explained by factors such as refusal from the families of potential donors, shortage of economic, personnel or physical resources, resistance from personnel and insufficient knowledge and experiences of the personnel at intensive care units (ICU) separately. From the literature it's known that relatives' answers to the question of possible organ donation might be influenced by the attitudes of the personnel asking. This gives grounds for the present study with focus on the perceptions and attitudes towards organ donation among personnel at the eight ICUs in Region of Southern Denmark. The focus of this study is placed on potential obstacles to organ donation from a health technology assessment perspective and thereby looking at potentially obstacles from a wider perspective and as a whole, not as separate factors. Factors with potentially bearing on organ donations are systematized according to the generally accepted list of aspects to be considered relevant in a HTA.

Objective

The objective of the study is to elucidate factors personnel in ICUs pinpoints as major obstacles to organ donation when contemplated from a broad HTA-perspective and to assess the relative weight of these factors.

Results

The questionnaire was distributed to the full population of all employees at all intensive care units, and after reminders we obtained a response rate at 53%. The respondents reflect the population; for each male respondent there are four females and for each medical doctor there are four nurses. The average number of years within intensive care is 10 and at around half of the respondents has professional experience with organ donation and around 10% have private experience. The respondents are generally positive towards organ donation; around three out of four and lesser wants to become organ donors themselves.

Table 1. Characteristics of the respondents.

Overall response rate	53%
Sex:	
Male	18%
Female	82%
Staff group:	
Medical doctors	21%
Nurses	79%
Average number of years within intensive care or treatment	10.4
Professional experience with organ donations	55%
Personal/private experience with organ donations	11%
Average number of donations per person	6.8
Positive attitude towards organ donation	74%
Positive attitude towards presumed consent	68%
Wants to become a organ donor themselves	61%

Table 2 shows the relative weight the respondents place on three of the four main factors to examine. The technology of organ donation is previous proved to be effective in several clinical studies; one brain dead patient can save six other lives and therefore not part of this project.

The overall results shows a general accentuating on organizational factors as the most prominent obstacles towards organ donation when viewed from the perspective of personnel at intensive care units. Among these skills, capabilities and inattention of the personnel are seen as the most prominent factors. More than half of the respondent states lack of skills and experiences as significant explanations. The secondly most prominent factors towards organ donations are patient-related factors such as preferences of the relatives for not donating organs and the personnel's considerations of the strain on the relatives and their own insecurity in talking to the relatives. Between one fourth and one third of the respondents express this view. The least prominent obstacles toward organ donation are the economic factors. Only between 11% and 16% of the respondents states these as potentially obstacles.

Table 2. Personnel's views of obstacles to organ donation at eight ICUs in Southern Denmark. (%)

Factors which might obstruct organ donations	Over all
Technology-related factors	
<i>Is previously proven efficient in several clinical studies - Not part of this study</i>	NA
Organizational factors	
Personnel unaccustomed with organ donation due to lack of experience	63
Lack of skills of the personnel at the ICUs	57
Inattention of potentially donors at the ICU	44
Insufficient amount of personnel at ICU:	
- during day-time	18
- during night-time	34
- during weekends	33
Inadequate physical space and arrangement at ICU:	
- during day-time	28
- during night-time	28
- during weekends	28
Time/amount of tasks at the ICUs	17
Negative attitude of the personnel at ICUs	14
Number of beds	7
Economic factors	
Lack of resources in general	13
Economic compensation will certainly increase amount of organ donations	13
More personnel will certainly increase the number of organ donations	16
More beds will certainly increase the number of organ donations	11
Patient-related factors	
Relatives preferring not to donate organs	36
Considerations for the relatives of the organ donor	26
Insecurity in talking with the relatives	22

Methods

The study is based on a survey among all personnel at the eight ICUs in the region of Southern Denmark servicing about 1.2 mill people. We developed a questionnaire consisting of 55 questions with focus on personal attitudes towards organ donation, personal and professional experiences, knowledge and self-rated competencies, organizational issues and economic constraints. We grouped the factors into four groups as common according to the Danish tradition each representing a separately category of aspects to examine. The four groups are 1) technology-related factors, organizational factors, economic factors and patient-related factors.

It can be argued for differences in attitudes and perceptions of obstacles to organ donation based on professional background and experiences. Table 3 shows the results of a sub-group analysis. In general there are only few differences between medical doctors and nurses perception of obstacles. Nurses sees incompetency of the personnel and inattention of potentially donors significantly more prominent than medical doctors, whom on the other hand points at insecurity in talking to the relatives significantly more than nurses. Differences in perceptions of potentially obstacles to organ donation are more conspicuous between personnel with and without professional experience. Incompetency are significantly more expressed by those without experience, and the experienced personnel points more at refusal from the relatives of the donors.

Table 3. Sub-group analysis of factors obstructing organ donations based on staff group and professional experience (%)

Factors which might obstruct organ donations	Staff group		Professional experience	
	Med.doctors	Nurses	Experience	No experience
Technology-related factors				
<i>Is previously proven efficient in several clinical studies - Not part of this study</i>	NA	NA	NA	NA
Organizational factors				
Personnel unaccustomed with organ donation due to lack of experience	59	64	61	66
Lack of skills of the personnel at the ICUs	42	61**	51	64**
Inattention of potentially donors at the ICU	35	45*	40	48
Insufficient amount of personnel at ICU:				
- during day-time	15	19	22	12***
- during night-time	30	35	42	23***
- during weekends	30	34	40	24***
Inadequate physical space and arrangement at ICU:				
- during day-time	26	28	32	24***
- during night-time	27	28	32	24***
- during weekends	26	29	32	24***
Time/amount of tasks at the ICUs	17	17	15	20
Negative attitude of the personnel at ICUs	18	13	15	13
Number of beds	8	7	8	7
Economic factors				
Lack of resources in general	13	14	12	15
Economic compensation will certainly increase amount of organ donations	15	29	11	16
More personnel will certainly increase the number of organ donations	15	16	14	20
More beds will certainly increase the number of organ donations	12	10	14	17**
Patient-related factors				
Relatives preferring not to donate organs	43	34	45	25***
Considerations for the relatives of the organ donor	24	27	26	27
Insecurity in talking with the relatives	30	20**	23	21

*p<0.1 **p<0.05 ***p<0.001

Personnel, who have experiences with organ donations significantly stress the amount of personnel and modification of the physical space and arrangements at ICUs as requirements for increasing the number of organ donation more than personnel without experience, despite the latter group states that more beds will certainly increase the number of organ donation.

Conclusions

The study shows a more varied picture of attitudes and perceptions of obstacles to organ donation among personnel at ICU when looked upon with a broad HTA perspective. Organizational factors like competencies and experiences of the personnel are the most dominant factors obstructing organ donations followed by patient-related factors, and economic factors are considered the least pivotal factor of these. Is has significant influence on attitudes and perceptions having experiences in organ donations but only minor influence depending on professional background.