

1 Supplementary file 1: The survey questionnaire

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3 Accompanying Letter

4 Dear Undergraduate Student,

5 This survey is designed to assess attitudes and knowledge about organ donation and transplantation.

6 The responses will help identify areas for improvement and development in education and practices

7 within this field. The survey is intended for students in medicine, health science, and technology at

8 higher education institutions in Oulu. All responses are anonymous, will be analyzed collectively,

9 and individual participants cannot be identified.

10 Organ transplantation is an established practice in healthcare, and the demand for it is growing.

11 However, it is limited by the number of organ donors and the availability of transplants. According

12 to the law, organs and tissues can be retrieved from a deceased person and used to treat another

13 person's illness or injury. After death, organ retrieval can proceed if the individual has not opposed

14 organ donation during their lifetime. The goal is to ensure that all patients who, based on their

15 illness and a medical assessment, would benefit from a transplant receive a well-functioning graft in

16 a timely and equitable manner.

17 This research has the necessary permissions from the University of Oulu and the Oulu University of

18 Applied Sciences. A pre-assessment concerning data protection and a privacy notice for scientific

19 research have been submitted and approved. The research contact person is Ida Sinda

20 (ida.sinda@student.oulu.fi), and the research is led by the Research Group of Intensive Care

21 Medicine, Oulu university and Oulu university hospital.

22 We kindly ask you to complete the survey by November 30, 2023. The estimated time to complete

23 the survey is 5–10 minutes.

24

25 Thank you for your valuable responses.

26 Best regards,

27 Ida Sinda

28 Research Group of Intensive Care Medicine,

29 Oulu university and Oulu university hospital.

30

Questions:

31 1. What field are you studying?

32 a. Medicine

33 b. Dentistry

34 c. Paramedicine (Health science)

35 d. Midwifery (Health science)

36 e. Public health nursing (Health science)

37 2. Technical University: If you answered "Technical University", please elaborate which study
38 field.

39 3. How long have you studied the field in question?

40 a. 1–2 years

41 b. > 2–3 years

42 c. > 3–4 years

43 d. > 4–5 years

44 e. > 5–6 years

45 f. > 6 years

46 4. Do you have previous education in health care or technology?

47 a. No

48 b. Yes, in health care

49 c. Yes, in technology

50 5. Gender:

- 51 a. Male
- 52 b. Female
- 53 c. Other
- 54 6. How old are you?
- 55 7. Possible previous work experience in health care
- 56 a. Yes
- 57 b. No
- 58 8. Would you donate your organs after death?
- 59 a. Yes
- 60 b. No
- 61 9. If you answered no, let us know why (maximum 3 choices):
- 62 a. I don't have enough information about the subject
- 63 b. Doubts about declaring brain death
- 64 c. I don't trust the health care system
- 65 d. I'm afraid that my organs will go to someone who I think doesn't deserve them
- 66 e. I think my organs are not suitable
- 67 f. Religious and philosophical reasons
- 68 g. Personal reasons
- 69 10. If you answered "Personal reasons", clarify these if you wish:
- 70 11. Are there any organs or tissues that you yourself would not want to donate after your death?
- 71 a. No, I wish all of my organs and tissues to be donated
- 72 b. Face
- 73 c. Corneas
- 74 d. Heart
- 75 e. Skin
- 76 f. I don't know
- 77 12. Have you expressed your willingness to donate organs and tissues (one or multiple choices)?
- 78 a. Yes, I have told my loved ones
- 79 b. Yes, I have registered an organ donation card
- 80 c. Yes, I have registered my willingness in OmaKanta
- 81 d. No, I haven't
- 82 13. I am willing to receive an organ from a brain-dead donor if needed.
- 83 a. Yes
- 84 b. No

14. Do you know your close one's willingness to donate organs and tissues?

a. Yes

b. No

15. What is your opinion regarding your close one's refusal to be an organ donor?

a. I accept it

b. I do not accept it

c. I have no opinion

16. Likert scale questions (1= Strongly disagree, 2= Disagree, 3= Undecided, 4=Agree, 5= Strongly agree)

a. I find it natural to discuss the possibility of organ donation with my close ones

b. I have enough information about organ donation and transplantation

c. I think there is enough public discussion about organ donation and transplantation

d. I have received education about organ donation and transplantation during my studies

e. I accept my loved one's organs being donated after death, although I do not know my loved one's position on organ donation after death

17. What word would you use to describe organ donation or what kind of feelings does organ donation evoke in you (maximum 4 choices)?

a. Anxiety

b. Positivity

c. Painful

d. Opportunity

e. Awkward

f. Rightful

g. Unworthy

h. Weird

i. Valuable

j. Untrustworthy

k. Encouraging

l. Suspicious

m. Clear

n. Chaotic

o. Easy

p. Disrespectful

- 119 q. Comforting
- 120 r. Complicated
- 121 s. Neutral
- 122 t. Uncertainty
- 123 u. Fear

124 18. The patient cannot be an organ donor if...

- 125 a. The cause of death is unclear
- 126 b. The patient has cancer
- 127 c. The patient has liver cirrhosis
- 128 d. The patient has diabetes
- 129 e. The patient has a difficult infection
- 130 f. The patient has high blood pressure
- 131 g. The patient is over 85 years old
- 132 h. The patient is underage
- 133 i. I don't know

134 19. Brain death is a valid definition of death.

- 135 a. Yes
- 136 b. No
- 137 c. I don't know

138 20. If you answered the previous question "No" or "I don't know", the reason is...

- 139 a. My doubts related to the definition of brain death
- 140 b. Brain death can be misdiagnosed
- 141 c. I don't know how it is defined in science
- 142 d. Lack of knowledge about brain death
- 143 e. A situational thing
- 144 f. Religious, philosophical, or personal reasons

145 21. According to the law, the deceased person's near relative or other close person must be
146 given an explanation for the removal of organs, tissues, or cells and of its significance.

- 147 a. Correct
- 148 b. Incorrect
- 149 c. I don't know

150 22. If you have or would have children, would you agree to donate your child's organs and
151 tissues after death?

- 152 a. Yes

- 153 b. No
- 154 c. I don't know
- 155 23. The decision on the suitability of a potential organ donor's organs is made by...
- 156 a. Transplant surgeon
- 157 b. The attending doctor from patient's own hospital
- 158 c. Organ donation coordinator
- 159 d. I don't know
- 160 24. During the past year, have you heard, read, or seen information about organ transplantation
- 161 or donation?
- 162 a. Yes
- 163 b. No
- 164 25. If you answered "Yes", where?
- 165 26. This question was addressed only to medical and health science students. Would you like to
- 166 receive more training in the following areas?
- 167 a. Identifying a potential organ donor
- 168 b. General information about organ donation
- 169 c. Discussing the willingness to donate organs with the patient (e.g., at clinic/hospital
- 170 reception)
- 171 d. Tissue donation and transplantation
- 172 e. Organ transplantations
- 173 f. Legislation
- 174 g. Facing and supporting the patient's loved ones
- 175 h. Theoretical information about brain death
- 176 27. Is there enough information available?
- 177 a. Yes
- 178 b. No
- 179 28. Do you think it is right that you can get a new organ or tissue transplant even if you refuse to
- 180 donate your own organs after death?
- 181 a. Yes
- 182 b. No
- 183 c. I don't know
- 184 29. Organ donation after death saves lives.
- 185 a. Yes
- 186 b. No

187 30. Is there something that worries you about organ and tissue donation?

188 31. Open feedback

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