

Beliefs and Intention to Organ Donation in Northern Region of Saudi Arabia: Online Cross-Sectional Survey

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ABSTRACT

There is a considerable gap between the availability and demand for organs in the Middle East, including Saudi Arabia. This study investigated community beliefs and intentions toward organ donation in the northern region, Saudi Arabia. An online questionnaire was distributed to 518 Saudi citizens aged 18 years and older. More than 50% of participants were female, 50% were married, 84% had a university-level education, and 47% were employed in government institutions. Assessment of participants' beliefs towards organ donation showed positive behavioral beliefs, where more than half of the participants agreed that organ donation could save lives (62%) and should be promoted (67%). Normative beliefs displayed the importance of getting the opinions of family members (69%) and their religion (75%). More than 50% expressed uncertainty about their willingness to donate tissue and/or organs after death, including kidneys (62%), eyes (53%), heart (57%), liver (55%), lungs (58%), and bone marrow (60%). Additionally, 60% had not decided to register as donors, and 52% had not advised their families to do so. Correlation analysis revealed a significant independent effect of each belief on the intention to donate organs ($p < 0.001^*$). Behavioural, normative, and control beliefs among the community in the northern region contribute to an increased intention to donate organs. However, many participants remained uncertain about applying to donate organs after death.

Keywords: Donation, Beliefs, Intention, Northern Region, Saudi Arabia

INTRODUCTION

Organ transplantation is a therapeutic approach that improves quality of life or saves lives in cases of end-stage organ disease¹. It is regarded as the final treatment option for end-stage organ failure and certain types of cancer². Recently, global rates of successful transplantation and organ donation have increased, reflecting their effectiveness in reducing morbidity and mortality and enhancing the quality of life for recipients³. However, rates of donating organs in the Middle East countries, including Saudi Arabia, are still diminutive⁴.

Globally, there is a significant gap between the demand for organs and the available donors, despite governmental efforts to increase organ donation rates¹⁻³. To overcome this gap and improve rates of organ transplantation as anticipated by WHO, each country needs to organize, and utilize all resources available to encourage organ donation⁵.

In Saudi Arabia, transplantation started in 1979 with a kidney transplantation. Then, in 1985, great strides occurred with the establishment of the Saudi Center for Organ Transplantation (SCOT) and the start of deceased donor transplantation⁵. Any person who

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wishes to donate organs after death can register their wish through the Tawakkalna app. The Ministry of Health in Saudi Arabia has implemented several policies to encourage organ donation, including the declaration that brain death constitutes whole-body death and that donated organs can be used accordingly⁶. Despite the advanced healthcare system and supportive policies, the rates of donation are still below the required⁷.

The theory of planned behaviour (TPB) is a psychological model that links beliefs to [behavior](#). It helps the prediction and explanation of human behavior. The TPB model proposes that any behavior is primarily affected by a person's intention to perform that behavior^{8,9}. This intention is affected by three constructs (attitude, subjective norms, and perceived control). These constructs are influenced by the behavioral, normative, and control beliefs, respectively⁸. Figure 1 reflects a simple illustration of the factors that may affect human behaviour according to the TPB model.

Previous studies have utilized the TPB to explore the factors that could affect the intent to donate organs and reported a positive relation between attitudes, subjective norms, and the intention to donate organs^{2,3}.

In Saudi Arabia, the shortage of organs' supply is a major challenge to expand transplantation programs¹⁰. Thus, the study aimed to investigate the constructs of TPB that evaluates the behavioural, normative, and control beliefs among the Saudi community in Northern Region.

RESEARCH METHODOLOGY

Ethical approval: The research proposal was approved by the Local Committee of Bioethics (LCBE), Jouf University (No. 9-09-45, dated 12th May 2024). Participants gave their consent by selecting the agreement option in the first section of the questionnaire.

Study design and setting: This study is a questionnaire-based cross-sectional study performed through online distribution to all community sectors in the northern region, Saudi Arabia. Questionnaires were shared via social media, WhatsApp, and Snapchat groups.

Sample size: This study enrolled 518 Saudi citizens from all governorates of the northern region using convenience sampling. The

inclusion criterion was Saudi citizens aged 18 years or older, while non-Saudi residents were excluded.

Data collection tools: To investigate the participants' behavioural, normative, and control beliefs regarding organ donation in respect to the TPB theory. The data collection tool is an open-source and validated questionnaire on organ/tissue donation, adapted from El-Menyar A, et al. (2020), who conducted a study investigating the beliefs and intentions towards organ donation in Qatar². The questionnaire included four sections: Section 1: the research aim and the consent to participate in the study; Section 2 involved sociodemographic data; Section 3 enquired about Behavioral, Normative, and Control Beliefs towards organ donation; and Section 4: Questions about intentions to donate organs.

Normative beliefs indicate the perception of others' beliefs about organ donation. Behavioral beliefs refer to the attitude toward donating organs and the perceived outcomes that may be positive or negative. Control beliefs refer to the internal and external factors that may impact their ability to perform the behaviour. A five-point scale (strongly agree, agree, neutral, disagree, and strongly disagree) was used to rate participants' agreement with statements, and they were coded as (+2, +1, 0, -1, and -2, respectively).

The questionnaire has been translated into the Arabic language, back-translation was performed, and the validation process involves: 1) Content validity, where experts from the community medicine department have reviewed the questionnaire; 2) Cronbach's alpha to ensure the internal consistency of items within the same scale; 3) Face validity, where 50 individuals have reviewed if the questions are clear, understandable, and relevant; and 4) Pilot testing by distributing the questionnaire to 50 university students.

Statistical analysis of the data: The statistical analysis was performed by IBM SPSS software version 20.0 (Armonk, NY: IBM Corp, released 2011). Categorical data were summarized as numbers and percentages. Quantitative data were described using mean and standard deviation. The tests used were the Pearson coefficient, Student t-test, and F-test (ANOVA). Regression analysis to detect the factors affecting intentions to donate organs

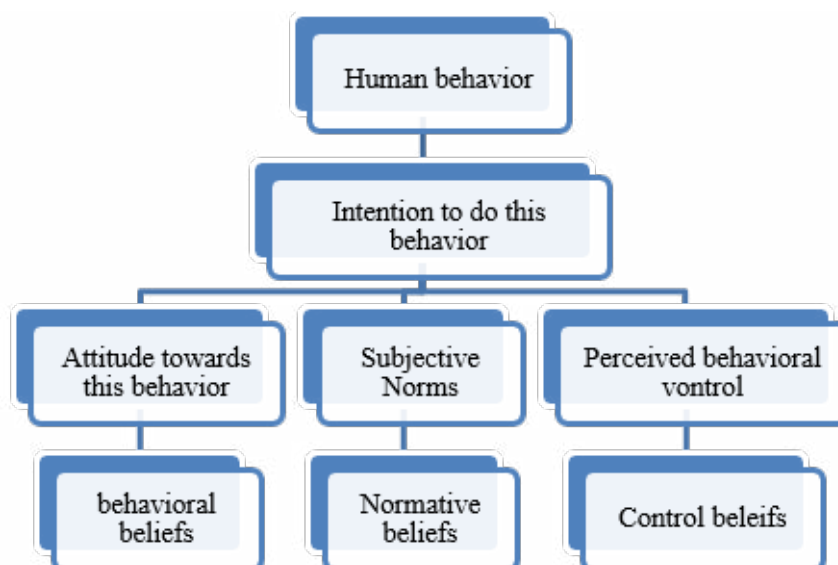


Figure 1. The Theory of Planned Behavior.

RESULTS

Participants' Demographic Data

This study enrolled 518 Saudi citizens from all governorates of the northern region, with female participants representing 73.7% across all age groups. Table 1 presents the demographic data of all participants.

Participants' Beliefs towards Organ Donation

The current study assessed the behavioural, normative, and control beliefs of the participants toward organ donation. A positive impact was noted regarding behavioral beliefs, with 67% of participants agreeing and strongly agreeing that organ donation should be promoted, and 62% strongly agreeing that organ donation could save lives. However, more than half of the participants were neutral or disagreed that the process can cause body deformity, brain death is a real death, and brain-dead patients can donate all their organs (Table 2).

Answers to questions evaluating the normative beliefs revealed that a great percentage of the participants agreed on getting the opinions of family members before registering as an organ donor (69%), their willingness to donate organs if they have more knowledge (62%), and if they know more about the perspective of Islam (75%) (Table 2).

For the control beliefs, 69% of the participants agreed that they would get opportunities for registration as donors, 58% believed that they were healthy enough to donate organs, and 63% supposed that they might get answers to their inquiries while registering. About two-thirds of the participants were concerned with the feelings of their family members (65%), and/or believed that their religion permits organ donation (62%). However, more than half of the participants were neutral or disagreed with the belief that the operation procedures related to organ donation are encouraging (Table 2).

Table 1. Participants' Demographic Data

Demographic Data		Number (Total 518)	Percent
Gender	Female	382	73.7%
	Male	136	26.3%
Age (years)	18–20 years	91	18%
	21–30 years	150	29%
	31–40 years	78	15%
	41–50 years	136	26%
	>50 years	63	12%
Educational level	Primary	6	1%
	Secondary	77	15%
	University	435	84%
Marital status	Divorced	22	4%
	Married	258	50%
	Single	230	44%
	Widow	8	2%
City of residence	Al-Jouf region	202	39%
	Alqassem	154	29.7%
	Arar	52	10%
	Hail	110	21.3%
Occupation	Governmental	241	47%
	Health care worker	13	3%
	Private work	39	8%
	Not employed	225	43%

Table 2. Participants' beliefs towards organ donation

Questions	Answers	Number (Total 518)	Percent
1. Behavioral Beliefs:			
Could organ donation have a positive impact on recipient's life?	Strongly agree	246	47%
	Agree	141	27%
	Neutral	93	18%
	Disagree	24	5%
	Strongly disagree	14	3%
Is organ donation should be promoted?	Strongly agree	176	34%
	Agree	169	33%
	Neutral	135	26%
	Disagree	24	5%
	Strongly disagree	14	3%
Could organ donation save somebody's life?	Strongly agree	320	62%
	Agree	154	30%
	Neutral	36	7%
	Disagree	4	1%
	Strongly disagree	4	1%

Do patients registered for organ donation receive less care in case of an emergency?	Strongly agree	43	8%
	Agree	62	12%
	Neutral	196	38%
	Disagree	147	28%
	Strongly disagree	70	14%
May the organ recovery process cause body disfigurement?	Strongly agree	52	10%
	Agree	85	16%
	Neutral	201	39%
	Disagree	143	28%
	Strongly disagree	37	7%
Are you familiar with the term brain death?	Strongly agree	186	36%
	Agree	237	46%
	Neutral	46	9%
	Disagree	42	8%
	Strongly disagree	7	1%
Do you think brain death is real death?	Strongly agree	84	16%
	Agree	126	24%
	Neutral	124	24%
	Disagree	145	28%
	Strongly disagree	39	8%
Can brain-dead patients donate all their organs?	Strongly agree	86	17%
	Agree	100	19%
	Neutral	166	32%
	Disagree	123	24%
	Strongly disagree	43	8%
2. Normative Beliefs			
Do you wish to get the opinions of family members before registering as an organ donor?	Strongly agree	185	36%
	Agree	169	33%
	Neutral	64	12%
	Disagree	72	14%
	Strongly disagree	28	5%
Will your willingness for organ donation increase if you have more knowledge about organ donation?	Strongly agree	127	25%
	Agree	193	37%
	Neutral	118	23%
	Disagree	55	11%
	Strongly disagree	25	5%
Will your willingness for organ donation increase if you know more about the viewpoint of your religion regarding organ donation?	Strongly agree	184	36%
	Agree	203	39%
	Neutral	89	17%
	Disagree	23	4%
	Strongly disagree	19	4%
3. Control beliefs			
Do you think that you may find opportunities to register as organ donors in Saudi Arabia?	Strongly agree	154	30%
	Agree	202	39%
	Neutral	119	23%
	Disagree	34	7%
	Strongly disagree	9	2%
Do you think that you may get answers to all your questions while registering?	Strongly agree	111	21%
	Agree	220	42%
	Neutral	137	26%
	Disagree	38	7%
	Strongly disagree	12	2%
Are you healthy enough to donate organs?	Strongly agree	102	20%
	Agree	197	38%
	Neutral	137	26%
	Disagree	59	11%
	Strongly disagree	23	4%

Do you think that operation procedures related to organ donation are encouraging?	Strongly agree	81	16%
	Agree	151	29%
	Neutral	217	42%
	Disagree	54	10%
	Strongly disagree	15	3%
Do you think that organ donation might leave you weak and disabled?	Strongly agree	38	7%
	Agree	89	17%
	Neutral	149	29%
	Disagree	181	35%
	Strongly disagree	61	12%
If you decide to perform an organ transplant for yourself or one of your relatives, would you prefer to be?	Inside Saudi Arabia	242	47%
	Outside Saudi Arabia	92	18%
	I don't care	184	36%
Are you concerned with the emotions of your family members related to organ donation?	Strongly agree	148	29%
	Agree	184	36%
	Neutral	125	24%
	Disagree	47	9%
	Strongly disagree	14	3%
Does your religion allow organ donation?	Strongly agree	156	30%
	Agree	168	32%
	Neutral	158	31%
	Disagree	22	4%
	Strongly disagree	14	3%

Table 3. Participants' intentions to donate tissues and/or organs

Questions	Answers	Number (Total 518)	Percent
Do you intend to donate tissue and/or organs after death?	Definitely No	74	14%
	Definitely Yes	91	18%
	Not decided	353	68%
Are you willing to donate blood?	Definitely No	34	7%
	Definitely Yes	354	68%
	Not decided	130	25%
Are you willing to donate your kidney?	Definitely No	89	17%
	Definitely Yes	107	21%
	Not decided	322	62%
Are you willing to donate your eyes after death?	Definitely No	181	35%
	Definitely Yes	60	12%
	Not decided	277	53%
Are you willing to donate your heart after death?	Definitely No	144	28%
	Definitely Yes	81	16%
	Not decided	293	57%
Are you willing to donate your liver?	Definitely No	97	19%
	Definitely Yes	134	26%
	Not decided	287	55%
Are you willing to donate your lung after death?	Definitely No	132	25%
	Definitely Yes	85	16%
	Not decided	301	58%
Are you willing to donate your bone marrow?	Definitely No	106	20%
	Definitely Yes	103	20%
	Not decided	309	60%
Are you willing to register for organ donation?	Definitely No	97	19%
	Definitely Yes	112	22%
	Not decided	309	60%
Will you consider organ donation after a discussion with a religious leader?	Definitely No	81	16%
	Definitely Yes	173	33%
	Not decided	264	51%
Would you advise your family to register as donors after death?	Definitely No	100	19%
	Definitely Yes	147	28%
	Not decided	271	52%

Table 4. Multivariate Linear regression analysis for the beliefs affecting intentions to donate organs (n = 518)

	Intentions to donate organs		
	r	p	B (LL – UL 95% C.I.)
Behavioral Beliefs	0.469*	<0.001*	0.311 (0.198 – 0.424)
Normative Beliefs	0.418*	<0.001*	0.383 (0.171 – 0.596)
Control Beliefs	0.469*	<0.001*	0.313 (0.182 – 0.444)

B: Unstandardized Coefficients, r: Pearson coefficient, C.I: Confidence interval, LL: Lower limit, UL: Upper Limit, *: Statistically significant at $p \leq 0.05$

Table 5. Relation between sociodemographic data and the studied variables (n = 518)

Demographic data	No.	Behavioral Beliefs Mean $\pm$ SD.	Normative Beliefs Mean $\pm$ SD.	Control Beliefs Mean $\pm$ SD.	Intentions to donate organs Mean $\pm$ SD.
Gender					
Male	136	4.47 $\pm$ 5.09	3.11 $\pm$ 2.53	4.36 $\pm$ 4.39	12.33 $\pm$ 5.94
Female	382	5.22 $\pm$ 4.88	2.39 $\pm$ 2.55	5.31 $\pm$ 4.40	12.68 $\pm$ 5.99
t (p)		0.887 (0.375)	1.643 (0.101)	1.247 (0.213)	0.336 (0.737)
Age (years)					
18 – 20 years	91	5.11 $\pm$ 5.49	3.20 $\pm$ 2.45	5.57 $\pm$ 4.79	12.67 $\pm$ 6.08
21 – 30 years	150	5.63 $\pm$ 4.63	2.80 $\pm$ 2.43	6.32 $\pm$ 4.18	14.03 $\pm$ 5.97
31 – 40 years	78	5.22 $\pm$ 4.36	1.92 $\pm$ 2.36	5.05 $\pm$ 3.93	12.56 $\pm$ 6.08
41 – 50 years	136	5.12 $\pm$ 5.12	2.09 $\pm$ 2.68	4.63 $\pm$ 4.73	11.90 $\pm$ 5.50
>50 years	63	4.21 $\pm$ 4.70	1.87 $\pm$ 2.61	3.78 $\pm$ 3.51	11.11 $\pm$ 6.23
F (p)		0.957 (0.431)	5.137* (<0.001*)	4.972* (0.001*)	3.634* (0.006*)
Educational level					
Primary	1	5.0	3.0	7.0	24.0
Intermediate	5	-1.40 $\pm$ 3.36	0.80 $\pm$ 2.17	1.20 $\pm$ 4.32	11.20 $\pm$ 1.79
Secondary	77	5.14 $\pm$ 5.46	3.13 $\pm$ 2.30	5.32 $\pm$ 4.67	13.03 $\pm$ 5.51
University	435	5.25 $\pm$ 4.76	2.33 $\pm$ 2.58	5.27 $\pm$ 4.35	12.58 $\pm$ 6.08
F (p)		3.085* (0.027*)	2.865* (0.036*)	1.478 (0.220)	1.422 (0.236)
Marital status					
Single	230	5.52 $\pm$ 4.93	2.94 $\pm$ 2.51	6.11 $\pm$ 4.38	13.62 $\pm$ 6.14
Married	258	4.93 $\pm$ 4.92	2.05 $\pm$ 2.57	4.57 $\pm$ 4.38	12.01 $\pm$ 5.57
Divorced	22	5.55 $\pm$ 4.03	2.0 $\pm$ 1.90	5.05 $\pm$ 3.58	11.73 $\pm$ 7.0
Widow	8	1.75 $\pm$ 3.81	1.63 $\pm$ 2.45	2.63 $\pm$ 3.11	8.50 $\pm$ 7.33
F (p)		1.961 (0.119)	5.628* (0.001*)	6.168* (<0.001*)	4.547* (0.004*)
Residency					
Al-Jouf region	507	5.18 $\pm$ 4.90	2.46 $\pm$ 2.54	5.25 $\pm$ 4.41	12.72 $\pm$ 5.95
Arar	4	3.0 $\pm$ 2.94	2.0 $\pm$ 3.65	5.50 $\pm$ 7.77	12.25 $\pm$ 9.60
Hail	2	12.50 $\pm$ 0.71	4.50 $\pm$ 2.12	4.50 $\pm$ 3.54	6.50 $\pm$ 7.78
Alqassem	5	2.60 $\pm$ 2.88	0.20 $\pm$ 2.59	4.80 $\pm$ 0.84	9.40 $\pm$ 5.32
F (p)		2.237 (0.083)	1.773 (0.151)	0.040 (0.989)	1.225 (0.300)
Occupation					
Governmental	241	5.40 $\pm$ 4.71	2.13 $\pm$ 2.61	4.93 $\pm$ 4.63	12.49 $\pm$ 6.10
Health care worker	13	8.92 $\pm$ 4.97	3.77 $\pm$ 2.28	7.23 $\pm$ 3.49	15.31 $\pm$ 6.30
Private	39	5.23 $\pm$ 5.79	2.54 $\pm$ 2.53	5.31 $\pm$ 4.24	12.21 $\pm$ 6.12
Not employed	225	4.69 $\pm$ 4.83	2.67 $\pm$ 2.47	5.46 $\pm$ 4.20	12.76 $\pm$ 5.81
F (p)		3.498* (0.015*)	3.010* (0.030*)	1.488 (0.217)	1.005 (0.390)

SD: Standard deviation, t: Student t-test, F: F for One-way ANOVA test, p: p value for comparison between the studied categories, *: Statistically significant at $p \leq 0.05$

Participants' intentions to donate tissues and/or organs

About half of the participants showed an uncertain willingness (not decided) to donate tissue and/or organs after death (68%), kidneys (62%), eyes (53%), heart (57%), liver (55%), lungs (58%), bone marrow (60%). 60% and 52% of the participants have not decided to register or advise their families to register as donors after death, respectively (Table 3).

Correlation analysis

Correlation analysis revealed a significant independent effect of each belief on the intention to donate organs ($p < 0.001^*$) (Table 4).

Regarding the effect of sociodemographic data on the studied variables, a significant positive impact exists for both age and marital status on normative beliefs, control beliefs, and intentions to donate organs.

Additionally, behavioral and normative beliefs are influenced by both education level and occupation (Table 5).

DISCUSSION

Extensive investigations have been conducted to understand the gap between the organs' supply and demand. There are global intentions to perform awareness programs targeting organ donation^{1-5,7,11}. Uhlig et al. (2015) evaluated community attitudes concerning post-mortem organ donation through a multicentre survey in Germany, distributing a questionnaire focused on three factors: willingness to donate, card-holding status, and family discussion. Among participants, 65.2% favoured post-mortem organ donation, were more likely to have donor cards, and encouraged family discussions. The percentage of participants who refused to donate all or a specific organ differed between 38.1% and 50.6%. They include Catholics, Protestants, participants with poor health, old age, and men who were careless about donor cards¹¹.

In Saudi Arabia, the annual rates of organ failure is increasing, and the number of donors does not meet these demands¹². Despite the presence of an advanced healthcare system and the government's supportive policies for organ donation, donor rates are particularly low. Organ donation is a very sensitive issue that is influenced by psychosocial, religious, and cultural factors, particularly in Islamic countries⁷. Thus, the current study aims to evaluate the beliefs that could affect organ donation. The study enrolled 518 Saudi Citizens aged 18 years or older, from all governorates of the northern region. More than 50% of participants were female, 50% were married, 84% had a university-level education, and 47% were employed in government institutions.

Assessment of the participants' beliefs toward organ donation showed positive behavioral beliefs because more than half of the participants agreed that donating organs could save lives (62%) and should be promoted (67%). This comes in agreement with Alwahaibi et al. (2023) who reported that 76.8% of Omani university students agreed that donating organs is important to save a life; however, 70.2% of them had a negative attitude, and the reason for refusing organ donation was unawareness¹³. However, Bukhari (2022)¹² reported that only 36% were willing to donate and/or were registered in the Saudi Center for Organ Transplantation (SCOT), and 54% could consider donating organs under special conditions, such as death, altruistic, list exchange, and/or paired-exchange donation.

However, more than half of the participants in the current study were neutral or disagreed that brain death is a real death, and patients can donate all their organs. This indicates the real need for educational programs focusing on the definition of brain death and the acceptability of donating organs at this stage. This agreed with El-Menyar et al. (2020)², who got nearly the same results among people in Qatar. Also, Aljaseem et al. (2023) have reported that only 42.4% of participants from Eastern Province, Saudi Arabia, knew brain death, and only 40% of participants agreed with organ donation because the majority were uninformed that they could provide their organs after death⁶.

Assessment of the normative beliefs of the participants in the current study exhibited that a great percentage of the participants agreed on getting the opinions of family members before registering as an organ donor (69%), their willingness to donate organs (62%), particularly if this is accepted by their religion (75%). This follows El-Menyar et al. (2020), who stated that normative and behavioral beliefs were the main contributors to their intent to donate organs².

For the control beliefs, 69% of the participants agreed that they would get opportunities for registration as donors. However, more than half

of the participants were neutral or disagreed with the belief that the operation procedures related to organ donation are encouraging. In contrast to our results, El-Menyar et al. (2020) found that the control beliefs were negatively associated with organ donation intention².

Regarding the participants' intent to donate organs, about half of the participants showed an uncertain willingness to donate tissue and/or organs after death (68%), and 52% of the participants have not decided to register or advise their families to register as donors after death, respectively. In partial agreement with these results, Almubark et al. (2022) have assessed the approaches to donating organs in an Arab population. They found that adults showed a willingness, but few of them registered to do so. Results clarified that in terms of knowledge sources that were most likely to influence, there were healthcare providers, family members, and religious scholars¹⁴.

In agreement with our study, some Saudi researchers have focused on the urgent need for awareness campaigns to encourage the community to share in this lifesaving practice^{3,15-17}. AbuAlhommos et al. (2023) reported that 63% of participants were willing to donate organs. Most participants reported that they would donate their organs to save lives. They reported moderate knowledge and a mild positive attitude. They recommended the urgent need for awareness promotions programs¹⁵.

Alghamdi et al. (2023) stated that 58.5% of participants agreed that donation should be endorsed, and 66.1% had a positive attitude. The study revealed that males between the ages of 31-50 were more likely to have a negative attitude towards organ donation¹⁶.

Al Moweshy et al. (2022) have determined the awareness and willingness of students in King Faisal University, Saudi Arabia, towards organ donation. They found nearly all participants (98%) were aware of the importance of organ donation, and 84.09% agreed that Islam allows organ donation. A positive relation was noticed between their awareness of the Islamic acceptance and the successful donation in Saudi Arabia, and their willingness to donate organs¹⁷.

Correlation analysis revealed a significant independent effect of each belief on the intent to donate ($p < 0.001^*$). This is supported by Alobaidi S. (2023), who found a positive correlation between the willingness for donation and the behavioural beliefs. However, a negative correlation was reported between donation and the control beliefs. They suggested a need to promote awareness of organ donation³.

Regarding the effect of sociodemographic data on the studied variables, a significant positive impact exists for both age and marital status on normative beliefs, control beliefs, and intentions to donate organs. Additionally, behavioral and normative beliefs are influenced by both education level and occupation. This supports the results of El Hennawy (2023)¹⁸ and Alshehri (2024)¹⁹, who reported that attitudes of medical students, healthcare personnel, and people with higher education toward organ donation were positive.

Although the findings align with other research in Saudi Arabia, this study adds value by providing region-specific evidence from the Northern region. Understanding local patterns, particularly the roles of family, religious considerations, and uncertainty surrounding brain death, can inform the design of targeted regional awareness campaigns and policy interventions that are culturally responsive and more effective than uniform national approaches.

All these results necessitate more educational interventions stressing the importance of organ donation, irreversibility of brain death, and the compatibility of organ donation with religious values. The main

limitation of the current study is the collection of data from the governorates of the Northern region, the use of convenience sampling via social media, and the overrepresentation of females and university-educated participants. Further studies are recommended to include all regions in Saudi Arabia to widen the scope of the study.

CONCLUSION

The behavioural, normative, and control beliefs of the community in the northern region of Saudi Arabia showed a high intention to donate organs. However, the Actual donor registration or behavior was still below expected, as more than half of the participants were uncertain about registering for organ donation. This indicates that having an intention does not always result in taking action. Thus, there is an urgent need for educational programs focusing on brain death and the acceptability of donating organs in this case.

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Competing Interest: None

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