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Understanding the Chinese's intentions to discuss organ donation with their family: Media use, cultural values, and psychological correlates

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ABSTRACT

Purpose: Family consent is required for posthumous organ donation to proceed in China. Prior discussion about organ donation with one's family can help ensure family consent and encourage family members to register as donors. This research aims to understand the factors related to one's intentions to discuss organ donation with family members.
Method: An online survey was conducted in China. A total of 352 participants who were not registered organ donors completed survey questions related to their attitudes toward family discussion about organ donation, subjective norms, self-efficacy, intentions, collectivist values, and media use.
Results: The Chinese's value-expressive attitudes ($\beta = 0.28$, $p < 0.001$), self-efficacy ($\beta = 0.52$, $p < 0.001$), and anticipated guilt ($\beta = 0.28$, $p < 0.001$) predicted their intentions to discuss organ donation with their families. The total effects of collectivist values and media use on discussion intentions were 0.50 ($p < 0.001$) and 0.31 ($p < 0.001$), respectively, and were mediated by value-expressive attitudes, efficacy, and anticipated guilt.
Innovation: This research is the first to examine the psychological factors and media use associated with mainland Chinese's intentions to discuss organ donation with their families. Such a detailed understanding can inform the design of more persuasive public campaigns.

1. Introduction

China is in the process of establishing a voluntary organ donation procedure [1]. Organ donation laws in China explicitly require family consent before organ procurement can proceed [2,3]. Such laws are rooted in Chinese cultural values that emphasize family obligations and decisions: Immediate family members share the decision-making on important life matters, including health care choices [4,5]. Indeed, it has been observed that the deceased's close relatives' (un)willingness to donate organs is a major factor that prevents organ procurement [6].

The importance of family discussion in facilitating donor registration and organ procurement in China cannot be underestimated. Research on organ donation discussion has found that families are more likely to consent to organ donation if the deceased has made their intentions known to their families [7]. Such discussion may be critical in China where mistrust toward medical professionals and hospitals is high, and physicians and hospitals are often criticized for misdiagnosis and being profit-driven [8]. Previous family discussion about the deceased's affirmative decision can partly dispel such mistrust; that is, it is the deceased's express wish to donate organs instead of the doctors trying to force an organ procurement. Furthermore, interpersonal discussion (i.e., deliberation) constitutes a source of information from the media to other participants [9] and can persuade other family members to register as donors [10].

This investigation uses the theory of planned behavior (TPB) [11] as the overarching theoretical framework, whereby a detailed attitude classification and anticipated guilt are included. Admittedly, reasons for organ donation discussion can be multi-faceted and complex. Furthermore, this research includes collectivist cultural values and media use as antecedent variables because (a) organ donation has been linked to collectivist values and willingness to help others [4,12] and (b) family discussion can be influenced by media reports [13]. In addition to providing practical insights for campaigns encouraging organ donation-related discussion, the present analysis will extend the TPB by including antecedent variables, detailed attitudes, and an emotional variable.

1.1. The TPB and attitudes

The TPB [Fig. 1] states that individuals' behavioral intentions are predicted by attitudes (i.e., favorable or unfavorable evaluation of a behavior), subjective norms (i.e., perceived expectations from significant others), and self-efficacy (i.e., individuals' confidence that they can perform a behavior) [11]. In the most recent iteration, Fishbein and Ajzen include distal

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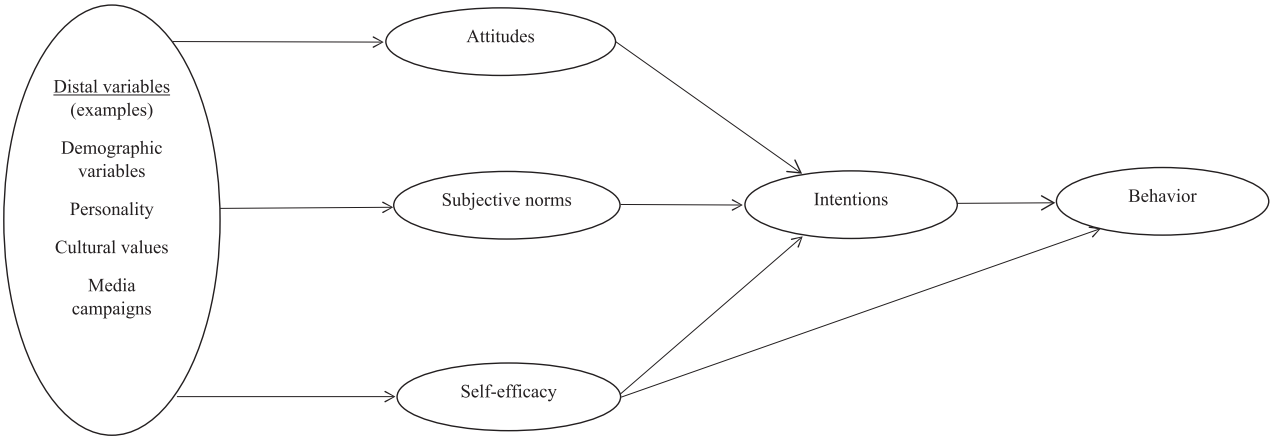

Fig. 1. The latest version of the theory of planned behavior [11]. The present manuscript classifies attitudes as value-expressive and ego-defensive attitudes and added anticipated guilt to the theory. It also specifies additional paths from value-expressive attitudes to anticipated guilt to intentions.

variables (e.g., personality, values, and media campaigns) and state that distal variables can predict attitudes, norms, and efficacy, which in turn predict behavioral intention and behavior [11].

The TPB has been continuously expanded on in recent decades. Several scholars state that although attitudes are a strong predictor of intentions [14], the general conceptualization of attitudes does not speak to individual motivations for performing or not performing a behavior. Instead, detailed attitudes such as value-expressive and ego-defensive attitudes should be examined and used to inform health campaign design [15,16].

Value-expressive attitudes refer to discussing organ donation as one way for individuals to express their values of being good and responsible. Chinese media reports and the organ donation literature often mention such value-based attitudes [4,16,17]. Family-based organ donation discussions can help express one's values of care and benevolence consistent with the traditional Chinese cultural values [4]. Ego-defensive attitudes are related to one's motivation to defend one's ego by attributing the root of a problem to external reasons. Organ donation discussions can be complex and challenging [16,18]. Because the Chinese consider that the body is given by parents and should be preserved as a whole [4], family discussion of organ donation with parents or other family members can cause conflicts between the older and the younger generations. Such conflicts may be taken personally, leading to lower self-esteem and higher depressive symptoms [19].

In addition, previous meta-analyses of the TPB have found that self-efficacy was a strong predictor and subjective norms were a weak predictor of behavioral intentions [4,11]. Specifically, self-efficacy and subjective norms predicted intentions to discuss organ donation and other health behaviors such as partners' discussion about safer sex [20,21]. As such, these two variables are included when examining the role of the two specific attitudes in forming intentions. A research question is asked because of the limited empirical research on the relationship between the two specific attitudes and organ donation discussion intentions in China.

RQ1: Are participants' (a) value-expressive attitudes and (b) ego-defensive attitudes related to their intentions to discuss organ donation with family members after controlling for subjective norms and self-efficacy?

1.2. Anticipated guilt

Despite the cumulative support for the TPB [4,11], it has been criticized for focusing on cognitive variables and ignoring emotional variables [20,22]. The theorizing on emotions states that emotions can be strong motivators of individual behaviors [22]. One stream of research found that anticipated emotions explained an additional amount of variance in behavioral intentions, over and above the TPB variables [22]. Recent research incorporates specific emotions in the TPB because different emotions have their unique appraisal patterns and consequences [23].

A common emotion across cultures and peoples, anticipated guilt is conceptualized as the negative emotions that individuals experience when they anticipate that their behaviors violate accepted moral values or when they do not perform a good behavior [24]. First, by definition, value-expressive attitudes are a prerequisite to guilt feelings. Individuals who have stronger value-expressive attitudes would experience stronger guilt. Second, organ donation is considered an act of kindness to others. Without family discussion about organ donation, family members may refuse to donate the organs of the deceased, a missed opportunity to help. That is, not discussing organ donation with one's family members may result in guilt feelings.

Because negative emotions are often uncomfortable and tense, individuals who feel such emotions often have the urge to alleviate such emotions. Guilt often guides people to apologize and make reparation [23,24]. Anticipated guilt can explain additional variance in participants' intentions to register as organ donors and discuss organ donation with their families in the United States [20]. Taken together, anticipated guilt may help explain the Chinese's intentions to discuss organ donation with their family members. As such, a hypothesis is proposed:

H1: (a) Value-expressive attitudes are positively associated with anticipated guilt, and (b) anticipated guilt in turn is positively associated with intentions to discuss organ donation with family members.

1.3. Distal variables: collectivism and media use

Cultural values and communication are distal variables that indirectly influence beliefs toward attitudes, norms, and efficacy. However, Fishbein and Ajzen did not specify which distal variables are related to attitudes, norms, and efficacy [11]. Because this research adopts a more refined classification of attitudes, instead of general attitudes, it will further clarify the relationships between values and value-related attitudes.

Collectivism (or collectivist values) emphasizes the group over the individual. Individuals who have a high level of collectivist values are more likely to believe in their group and want to contribute to their group [25]. Second, collectivism is rooted in the Confucian philosophy of interpersonal harmony and benevolence to others and is a characteristic of Asian countries [4]. Therefore, more collectivist people will be more likely to hold stronger value-expressive attitudes to help others.

On the one hand, collectivism also means the need and ability to collaborate with others [25]; that is, collectivists (vs. individualists) are more willing and have stronger skills to work with others to achieve goals. As such, they (vs. individualists) are more likely to have higher self-efficacy in discussing organ donation with families. On the other hand, collectivism values family obligation [4] and is rooted in the traditional Chinese culture.

The traditional Chinese culture emphasizes that parents give the body and that there is a need for a whole-body burial [4]. Collectivists (vs. individuals) may be more concerned that organ donation can cause problems for family members to cope with an untimely death. As such, they may be more hesitant and less confident in discussing organ donation with their family members. Given the conflicting ideas, a research question is asked regarding the relationship between collectivism and self-efficacy:

H2: High collectivist values (vs. lower) are positively associated with (a) value-expressive attitudes and (b) subjective norms about discussing organ donation with family members, and (c) negatively associated with ego-defensive attitudes.

RQ2: How are collectivist values associated with self-efficacy?

Lastly, news and information in the media can trigger family discussions. Indeed, campaigns often encourage individuals to engage in interpersonal discussion because conversations about the media and news can help augment (or dampen) media campaigns' effectiveness. However, the role of media use in facilitating family discussions is indirect and via attitudes, norms, and efficacy [11]. Social cognitive theory states that individuals will develop favorable attitudes and subjective norms from the outcomes and expectations presented in the media [26]. The media can also change individuals' self-efficacy by presenting examples and scripts for them to learn from. Relatedly, a recent content analysis of Chinese organ donation messages in newspapers from 2000 to 2018 found that several major themes appeared in the newspapers, including altruistic acts/compassion toward others, organ donation laws and policies, and support from families [27]. Furthermore, although some media reports were controversial (e.g., a black market for organ transplantation), others included information related to the importance and the procedure of organ donation [27]. These areas covered value-expressive attitudes, how to register (e.g., policies), and norms. Thus, those who have read media reports (vs. not) may know more about the benevolent nature of organ donation and understand the procedure better.

H3: (a) Participants' media use is positively related to their value-expressive attitudes, self-efficacy, and subjective norms, and negatively associated with ego-defensive attitudes.

2. Methods

The data were collected through sojump.com in April 2017. Sojump.com constructed its panels using several nonprobability-based, opt-in methods, for example, online intercepts, online bulletin boards, or co-registration sites. Sojump.com coordinated data collection and sent the survey link to a sample of 1,636 randomly selected panel members. The total number of participants was 430 representing a response rate of 26.3%. The data analysis only included nonregistered participants ($N = 352$) after removing 78 self-reported registered organ donors. The characteristics of the sample are as follows: The average age of the participants was 32.6 ($SD = 7.0$), 54.4% of the participants were female, nearly all participants were of Han ethnicity (98.1%), and the average annual income was 95,600 Chinese Yuan (RMB; US$13,460, SD = RMB54,390). The occupations of the participants varied (e.g., human resources, sales, teachers, accountants, and information technology). One was unemployed, and eight were students. Overall, the participants skewed toward the younger generations, the more educated, and those with more income.

This research was approved by Rochester Institute of Technology's Human Subjects Office in March 2017 and was determined as Exempt 46.101 (b) (2). Participants were presented with an informed consent form before they completed the questionnaire.

2.1. Questions

This analysis was based on part of the data from a larger study. The questions below were placed in the second half of the questionnaire. All responses to the questions ranged from 1 (*strongly disagree*) to 7 (*strongly agree*).

Collectivism ($\alpha = 0.85$) was based on four items adapted from Triandis and Gelfand [25]: "If other people get a prize, I will feel happy for them," "the well-being of my friends is important to me," "I feel good when I cooperate with others," and "to me, the pleasure is spending time with others."

Media exposure to organ donation or transplantation-related content ($\alpha = 0.97$) was based on the average number of times that respondents estimated: "In the two past months, how many times did you read or watch the news or other information about organ donation on TV/in print newspapers/on the Internet/in films and documentaries/on blogs."

Several items were adapted from Wang to measure participants' attitudes toward family discussion about organ donation [16]. However, factor analysis, based on the maximum likelihood method and Oblimin rotation, revealed only two factors: ego-defensive ($\alpha = 0.85$) and value-expressive dimensions ($\alpha = 0.87$): "Discussing organ donation with my family would be inconvenient/would make me look awkward before my family/would give me a hard time to explain myself" and "…would show I am an altruistic person/would show I care about others/is consistent with Chinese cultural worldviews/serves a good social purpose/can encourage more people to register as organ donors."

Self-efficacy ($\alpha = 0.93$) was measured by three items: "I know how to discuss organ donation with my family," "I'm confident I can discuss organ donation with my family," and "I can persuade my family if needed." They were adapted from Fishbein and Ajzen [11].

Subjective norms ($r = 0.87$) were adapted from Fishbein and Ajzen [11]: "Most people whose opinion I value," and "most people who are important to me believe I should discuss organ donation with my family."

Anticipated guilt ($\alpha = 0.93$) was adapted from Wang [20]. Items included "Thinking about the near future, if I do not discuss organ donation with my family, I would feel guilty/feel tense/would want to apologize/would feel I'm in the wrong."

Intentions to discuss organ donation with family ($\alpha = 0.95$) were measured by the following: "Thinking about the near future, I plan to/expect to/will discuss organ donation with my family."

Several control variables were also measured, including the previous discussion about organ donation with friends/family/colleagues, demographic information, and donor status.

3. Results

Means, standard deviations, and Pearson correlations among the variables are presented in Table 1. Preliminary analysis showed that the demographic variables did not predict value-related attitudes or intention to discuss organ donation with family members and thus were not retained for the main analysis. The main analysis adopted structural equation modeling analysis using EQS. In the first step, confirmatory factor analysis was conducted. The analysis showed a satisfactory fit. Satorra-Bentler (S-B) scaled χ^2 $(322, N = 352) = 492.0, p < 0.001$, root mean square error of approximation (RMSEA) = 0.039, 90% CI of RMSEA [0.032 ~ 0.045], and comparative fit index (CFI) = 0.97. In the second step, a full structural equation modeling analysis, including both the confirmatory factor analysis and path analysis, was conducted. The structural equation model showed a good fit: S-B scaled χ^2 $(334, N = 352) = 775.5, p < 0.001$, RMSEA = 0.061, 90% CI of RMSEA [0.056 ~ 0.067], and CFI = 0.94.

RQ1 asked which variables predicted intentions to discuss organ donation with family members. Fig. 2 shows that value-expressive attitudes ($\beta = 0.28, p < 0.001$) and self-efficacy ($\beta = 0.52, p < 0.001$) were positively associated with intentions to discuss organ donation with family members, whereas ego-defensive attitudes were negatively associated with discussion intentions ($\beta = -0.08, p = 0.068$). Subjective norms were not predictive of intentions ($\beta = 0.04, p = 0.313$)

H1 predicted the relationships related to guilt. The results showed that value-related attitudes predicted anticipated guilt ($\beta = 0.29, p < 0.001$), which in turn predicted discussion intentions ($\beta = 0.28, p < 0.001$).

Table 1
Means, standard deviations, and pearson correlations of the variables used in the analysis.

	1	2	3	4	5	6	7	8	9	10	11	12
1 Sex (1 = male, 2 = female)	–											
2 Age	0.11*	–										
3 Year of education (1 = 1 year)	−0.03	−0.08	–									
4 Annual income (1 = RMB10,000)	0.12*	0.15**	0.21**	–								
5 Collectivism	0.11*	0.08	0.11*	0.08	–							
6 Organ donation-related media use	0.01	−0.06	−0.19**	0.05	0.02	–						
7 Ego-defensive attitudes	0.08	−0.02	−0.15**	−0.01	−0.09	0.13*	–					
8 Value-expressive attitudes	0.02	−0.00	0.03	0.12*	0.48**	0.15**	−0.16**	–				
9 Self-efficacy	−0.00	−0.00	−0.02	0.07	0.30**	0.31**	−0.35**	0.57**	–			
10 Subjective norms	0.00	−0.12*	−0.07	0.01	0.28**	0.29**	−0.23**	0.51**	0.67**	–		
11 Anticipated guilt	−0.09	−0.12*	−0.03	0.03	0.14**	0.27**	−0.09	0.30**	0.44**	0.51**	–	
12 Intentions to discuss organ donation	−0.04	−0.09	0.02	0.02	0.35**	0.23**	−0.30**	0.58**	0.74**	0.61**	0.54**	–
Mean		32.57	15.37	9.56	5.62	3.27	4.21	5.18	4.50	4.49	4.13	4.67
SD		6.97	2.38	5.44	0.84	2.21	1.38	1.03	1.44	1.48	1.50	1.44

$N = 352$
$*p < 0.05$, $** p < 0.01$

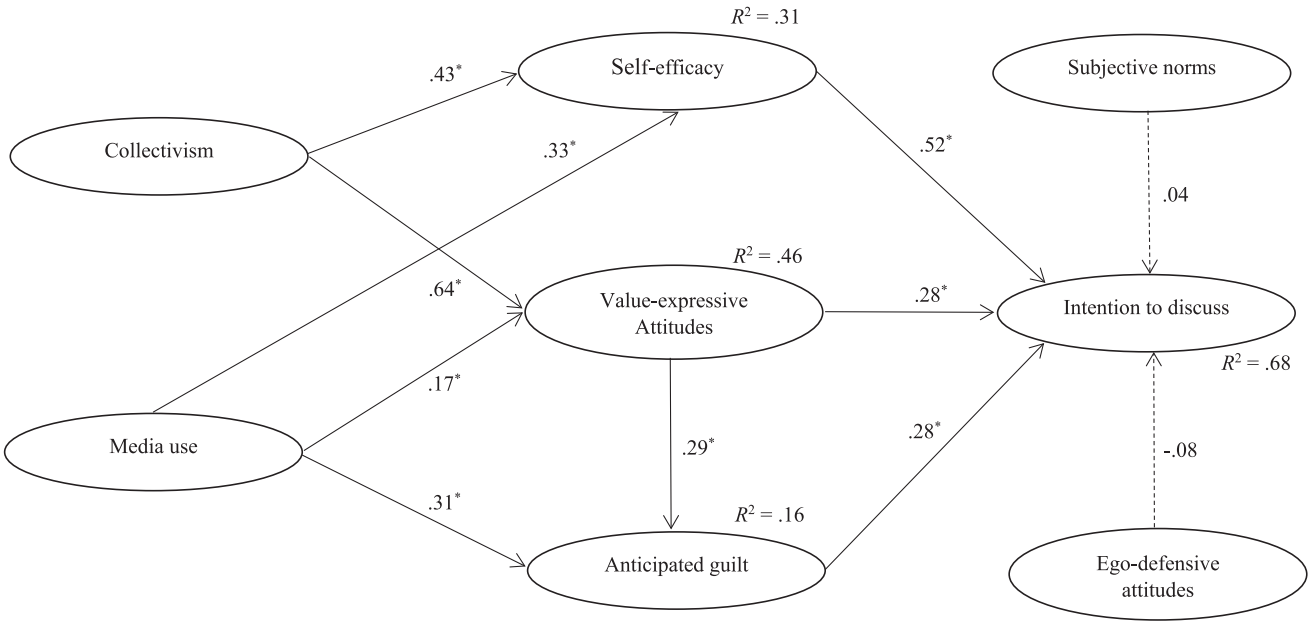

Fig. 2. Structural equation modeling analysis of factors that predicted the Chinese's intent to discuss organ donation with family members (N = 352). Satorra-Bentler scaled χ^2 (334, N = 352) = 775.5, p < 0.001, root mean square error of approximation (RMSEA) = 0.061, 90% CI of RMSEA [0.056 ~ 0.067], and comparative fit index = 0.94. Standardized factor loadings of the variable indicators ranged from 0.65 to 0.96 and are not shown in the above. Asterisks indicate significant relationships (p < 0.05, two-tailed). Not shown above: The direct paths from collectivism and media use to ego-defensive attitudes were −0.22 and 0.13, respectively. The direct paths from collectivism and media use to subjective norms were 0.41 and 0.32, respectively.

H2 predicted the relationships associated with collectivism. Fig. 2 showed that collectivism was positively related to value-expressive attitudes ($\beta = 0.64$, $p < 0.001$) and subjective norms ($\beta = 0.41$, $p < 0.001$) and was negatively related to ego-defensive attitudes ($\beta = -0.22$, $p < 0.001$). Collectivism was not associated with anticipated guilt, and the path was not included in the final model.

RQ2 asked whether collectivism and self-efficacy were associated. The results showed that the relationship between the two was positive and significant ($\beta = 0.43$, $p < 0.001$).

H3 predicted that participants' media use was associated with their attitudes, efficacy, norms, and guilt. Figure 2 showed that media use was positively related to value-expressive attitudes ($\beta = 0.17$, $p = 0.001$), self-efficacy ($\beta = 0.33$, $p < 0.001$), subjective norms ($\beta = 0.32$, $p < 0.001$), and anticipated guilt ($\beta = 0.31$, $p < .001$). Contrary to H3, media use was positively associated with ego-defensive attitudes ($\beta = 0.13$, $p = 0.022$).

Collectively, the total effects of collectivist values and media use on intentions to discuss organ donation with family members were $\beta = 0.50$ ($p < 0.001$, unstandardized $B = 0.76$, 95% CI: 0.59 – 0.93) and $\beta = 0.30$ ($p < 0.001$, unstandardized $B = 0.16$, 95% CI: 0.11 – 0.21). Indirect and total relationships are presented in Table 2. The amounts of variance explained in the mediators and the dependent variable are presented in Fig. 2.

4. Discussion

4.1. Discussion

The present analysis examined the factors that predicted Chinese participants' intentions to discuss organ donation with their family members. At the theoretical level, the present investigation used specific value-expressive and ego-defensive attitudes instead of using a general measure of attitudes. The use of specific attitudes can better reflect different aspects of an attitudinal object (i.e., organ donation discussion) thus providing a better theoretical explanation of attitudinal predictors of behavioral intentions. Furthermore, the use of specific attitudes can help meaningfully delineate the relationships between attitudes and other variables, for

Table 2
Structural equation modeling analysis of the factors that predicted the chinese's intentions to discuss organ donation with their families.

	Intentions to discuss organ donation (direct relations)					Intentions to discuss organ donation (indirect relations)					Intentions to discuss organ donation (total relations)				
	β	*B*	*SE*	95% lower	95% upper	β	*B*	*SE*	95% lower	95% upper	β	*B*	*SE*	95% lower	95% upper
Collectivism						0.50***	0.76	0.09	0.59	0.93	0.50***	0.76	0.09	0.59	0.93
Media use						0.30***	0.16	0.03	0.11	0.21	0.30***	0.16	0.03	0.11	0.21
Ego-defensive attitudes	−0.08	−0.09	0.05	−0.19	0.01						−0.08	−0.09	0.05	−0.19	0.01
Value-expressive attitudes	0.28***	0.35	0.07	0.22	0.48	0.08**	0.10	0.03	0.05	0.15	0.37***	0.45	0.06	0.33	0.57
Subjective norms	0.04	0.04	0.04	−0.03	0.10						0.04	0.04	0.04	−0.03	0.10
Self-efficacy	0.52***	0.48	0.04	0.39	0.56						0.52***	0.48	0.04	0.39	0.56
Anticipated guilt	0.28***	0.24	0.05	0.14	0.33						0.28***	0.24	0.05	0.14	0.33

$N = 352$
$*p < 0.05$, $**p < 0.01$, $*** p < 0.001$.

example, the relationship between collectivist values and value-expressive attitudes and the relationship between value-expressive attitudes and anticipated guilt. The use of specific attitudes also provides a further theoretical relationship between value-expressive attitudes and intentions, which is partially mediated by anticipated guilt. That is, when more specific attitudes are used, it is possible to specify more detailed relationships among the variables.

Another contribution of this present research is the addition of collectivist values and media use. According to Fishbein and Ajzen [11], cultural values are distal variables and only indirectly predict behavioral intentions through beliefs associated with attitudes, norms, or efficacy. This research confirmed such a proposition. Because this research used specific attitudinal measures, it provided fine-tuned results between attitudes and collectivist values and how collectivist values are mediated. It is encouraging to find that collectivist values were positively associated with value-expressive attitudes, efficacy, and subjective norms. They also have a negative correlation with ego-defensive attitudes, indicating that those who are more collectivist are less likely to consider organ donation discussion difficult or inconvenient. This research has confirmed that collectivist values have a total effect of .50 on intentions, which is of large effect size. The inclusion of collectivist values can have an important implication in many other health behaviors that may call for collaboration and altruism.

Similar to collectivism [25], communication variables (e.g., media use) should serve as distal variables and should not predict intentions directly. The results confirmed such theorizing. The total effect between media use and behavioral intentions was 0.33, a medium effect size. It appears that the relationships between media use and attitudes were weak, whereas the relationships between media use and norms, efficacy, and anticipated guilt were stronger. On the other hand, collectivist values appear to have stronger relationships with attitudes and weaker relationships with norms and efficacy. Thus, the results indicate that values are a stronger predictor than media use of the more internalized attitudes. On the other hand, for efficacy, norms, and anticipated guilt, media use can be a stronger predictor and serve as a reminder. To further explain this point, subjective norms are perceived pressure from significant others. Anticipated guilt is interpersonal. That is, these variables can be susceptible to external influences.

For practical implications, interestingly, this research did not find evidence for commonsense thinking that the Chinese would be sensitive to subjective norms when forming intentions. Instead, the results showed that participants' efficacy in discussing organ donation with their families was the strongest predictor and that value-expressive attitudes and anticipated guilt had a moderate relationship with intentions. On the other hand, ego-defensive attitudes were a weak predictor of intentions to discuss organ donation with family members. Because the coefficient between ego-defensive attitudes and intentions was small, it might be advisable to focus on other variables with a stronger association with intentions. Table 1 showed that the means of attitudes, self-efficacy, and anticipated guilt were not particularly high, ranging from 4.13 to 5.18 on a 7-point scale, indicating that there is room for change. If additional research confirms such findings, campaigns to encourage family discussion of organ donation should enhance value-expressive attitudes, self-efficacy, and anticipated guilt to facilitate family discussion.

For example, to enhance the target audience's self-efficacy in family discussion, campaign messages or education programs can provide real-life examples and strategies that others use to persuade their family members. In addition, providing possible scripts can enhance the target audience's perceptions that they can do it themselves. Media campaigns or education programs can help improve one's skills and confidence in carrying out a successful interpersonal discussion, which can indirectly lead to the actual discussion. Finally, guilt is often based on individuals' objections to behaviors that violate moral norms or value-related attitudes [24]. Future campaigns to induce guilt among the target audience can provide heartwarming examples or explanations on why organ donation serves a good social purpose among the target audience.

Health practitioners should understand that an individual's collectivist values are a relatively stable value orientation and not open to change within a short time. However, results related to collectivist values can help understand the role of culture in family discussion at the theoretical level and be used for segmentation purposes in practice. More specifically, compared with those with a high collectivist value, those with a low collectivist value would have lower value-expressive attitudes, self-efficacy, and anticipated guilt. Because collectivist values are not open to change, it is necessary to seek other avenues for potential changes among the low collectivists. For example, it is possible to use the media to enhance self-efficacy and anticipated guilt because self-efficacy and anticipated guilt were more strongly related to media use and amenable to change. As discussed previously, articles in the Chinese media appeared to have focused on these aspects and seemed to be useful.

Regarding the limitations, this sample was an opt-in online sample; the results cannot be generalized to the general Chinese population. Further research should be conducted to confirm or generalize the results. Second, this analysis showed the frequency of media use on future intentions. Additional research should examine the content and topics in the articles or content that individuals are exposed to. An analysis of the relationship between media content and family discussion can help us understand the cause of the participants' intentions to discuss with their families. Lastly, we need to further understand how to facilitate the formation of self-efficacy and anticipated guilt among the participants; for example, what methods are the most important and effective for a Chinese audience?

4.2. Innovations

This research is the first to apply an extended version of the TPB to identify the factors associated with mainland Chinese's intentions to discuss organ donation with their families. It contributes to the extension of the TPB by addressing the role of collectivism and media in theory and specifying the indirect paths of these variables to intentions to discuss organ donation with family members. At the practical level, such a detailed understanding of the psychological factors and media use reveals the factors that may be important for organ donation campaigns in China. It contributes to the design of future organ donation campaigns in China by

pinpointing the potential need to enhance value-expressive attitudes, efficacy, and anticipated guilt. At the same time, it reveals the role of collectivism and the usefulness of using the media to encourage family discussion in China.

4.3. Conclusion

Chinese law requires family consent for organ donation to proceed. Family discussion can help confirm or disconfirm one's intention to donate organs after an untimely death and may further encourage donor registration. As the first to examine the predictors of family discussion in mainland China, this research analyzed various factors to provide a preliminary understanding of an important area for further investigation.

Declaration of Competing Interest

The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

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