"LOOKING FOR KIDNEY ANGEL"

THE ROLE OF EMPATHY IN PERSUASION: AN EXAMINATION OF ONLINE

DESCRIPTIONS OF ORGAN DONATION PROFILES

Thesis

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ABSTRACT

THE ROLE OF EMPATHY IN PERSUASION: AN EXAMINATION OF
ONLINE DESCRIPTIONS OF ORGAN DONATION PROFILES

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Due to the significant shortage of organs available for transplantation,

new avenues are developing in order to bypass the seemingly endless

transplant wait-list. A new website, Matchingdonors.com, allows patients to

post a profile or message to be read by both the public as well as registered

potential donors. Building off of new theoretical research on the role of

empathy as a key mediator in persuasive health messages, it is suggested

that messages that evoke empathic arousal will elicit more responses from

potential donors than those that do not.   A multifaceted approach included

first, a content analysis of 64 posted messages from the website. Using the

ERS (empathy response scale), messages were scored for their ability to

evoke an empathic arousal.

Secondly, four messages coded for high empathy and four coded for

low empathy were chosen to accompany a questionnaire incorporating the

ERS and organ donation beliefs. 406 respondents recruited through snowball

sampling completed the questionnaire. The third section included telephone interviews with patients whose messages were included in the initial analysis.

This study found empathy to be a complex state consisting of three subgroups—identification, affective, and cognitive. The affective subgroup found to be most predictive in the likelihood of organ donation. Significant differences in empathy scores were found between messages coded as being high and low in empathic arousal. Messages coded as high in empathic arousal had higher ERS mean scores than messages coded as low empathy messages. Respondents reported a higher likelihood of organ donation when they felt more empathy toward a message than those who did not empathize with a message. Significant gender differences were found with mean ERS scores as well as individual empathy scores. Consistent with previous research, females had higher mean ERS scores and individual empathy scores than did males. It was interesting to find, however, that those messages written by males received higher mean ERS scores than messages written by women. The results of this study are discussed and conclusions are drawn to support the importance of empathy in a persuasive context.

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Finally, to my step-dad, Jon Nussbaum. Thank you for all of your advice and your strong belief in me. I have a great deal of respect for you both professionally, and as a parent. Your introduction to this field and unwavering encouragement has helped me get to where I am today.

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Chapter I

Introduction

In 2002 NBA basketball star, Alonzo Mourning was diagnosed with a life-threatening kidney disease that required him to temporarily resign from his career in basketball. When the news reached the public that Alonzo needed a kidney, there was an outpouring of responses, with over 500 strangers offering to donate their own kidneys. In some way, the fame or familiarity of Alonzo resonated with people and made them empathize with his plight.

The purpose of this thesis is to examine the role of empathy and communication in the organ donation matching process. The remainder of this introduction will be divided into three sections. Section one will explore the need for organs in the United States. Section two will discuss what is currently being done to increase the number of organs being donated, and section three will then focus on the empathy literature and its relevance to the process of organ donation.

Organ Donation

It is no secret that the various organ procurement systems are not meeting the needs of the current organ donation demand. As of 3:00 pm on February 8, 2005, there were 87,429 candidates on the waiting list to receive an organ

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transplant (The Organ Procurement and Transplant Network [OPTN], 2005). This is an overwhelming number of patients waiting with hopes that their lives will be saved. Each day there are approximately 70 people who undergo lifesaving transplants. While this is a wonderful achievement, it is difficult to not also consider the other 16 people each day who die waiting for an organ (OPTN, 2004).

Many efforts have been enacted to help improve these donation numbers. Public awareness campaigns that focus on increasing these donation rates have encouraged discussion of donation wishes with families. Legislative mandates have also required hospitals to enforce procedures to guarantee that families' rights to donate are not ignored (Coalition on Donation, 2003; Health Care and Financing Administration [HCFA], 1998). Along with these efforts, an Organ Donation Breakthrough Collaborative has been enacted in order to increase access to transplantable organs (Organ Donation Breakthrough Collaborative, 2004). This Collaborative was first initiated by the Department of Health and Human Services to increase donation consent rates across the United States. This performance-improvement approach has been further developed by the Institute for Healthcare Improvement and involves a series of learning sessions for organ procurement officers and hospital representatives. The goal of the project is to document, share, adapt, test and rapidly replicate the best practices with both organ procurement officers and large United States hospitals in order to

help them meet or exceed a donation consent rate of 75 percent (Organ Procurement and Transplant Network, 2004).

Despite these efforts, the waiting list continues to lengthen while the number of organ donors very slowly progresses. During 2002, there were more than 24,000 organs transplanted in the United States. Of those organs, approximately 18,000 were from deceased donors, while 6,600 were from living donors. While this seems to be a promising number, there were also over 6,000 patients who were reported to have died while waiting for a transplant during that time frame (Organ Donation and Transplantation Trends in the United States, 2003).

It is reasonable to assume that the American public is well aware of organ donation needs, but is for various reasons reluctant to donate their organs. Numerous myths surround the topic of organ donation and may account for this reluctance to donate. These myths create barriers that can be classified in eight different categories including 1) donor demographics, 2) distrust of the medical community, 3) religious beliefs, 4) fear of mutilation, 5) concern regarding the use of organs, 6) lack of knowledge about the deceased's wishes, 7) misunderstanding of brain death, as well as 8) the bereaved family's emotional state (Rocheleau, 2001).

Living Organ Donation

Because of the lack of available organs, greater reliance is being placed on living organ donors, especially living kidney donors (Yi, 2003). Living organ donation has seen an increase over the past few years. In 2003, there were over 25,000 organ transplants within the United States (Port, Dykstra, Merion, & Wolf, 2005). Of these organ transplants, over 18,000 were from deceased donors and nearly 7,000 came from living donors. The number of deceased donors has increased by 1.9% in the past year, while an even greater increase of 2.9% was seen for living donors (Port et al, 2005).

While the above numbers refer to organ transplants overall, the donation rates are even better for kidney donors. There has been a 3.9% increase in live kidney donation within the past year. During the same time period, however, there has been an increase of 7.2% of patients on the list waiting for a kidney (Port et al, 2005). Of special note is the fact that patient survival rate is higher for patients who receive an organ from a live donor than those receiving a kidney from a cadaveric donor. The one year survival rate from 2002 to 2003 for patients receiving a kidney transplant from a deceased donor was 89%, while those receiving a kidney from a living donor had a one year survival rate of 94.6% (Port et al., 2005). This higher survival rate is partially due to receiving a kidney from a healthy patient as well as undergoing an ideally planned surgery (Neyhart, 2004). Transplantations from living donors can be planned more thoroughly ahead of time than can transplantations of cadaveric organs, which may fall almost into the

category of emergency surgery. The emergency surgery is necessary for the patient, because when a cadaveric organ becomes available; surgery is scheduled as soon as possible to get the organ to the patient in need.

This process of living kidney donation, although beneficial, is very complex, with numerous psychosocial, interpersonal, and financial factors involved. In fact, research indicates that these factors play a larger part in the decision making process than medical considerations (Yi, 2003). Koreans who were found to be very willing to donate one of their kidneys reported that their decisions were not based upon impulse, but rather were made by thoughtful consideration (Yi, 2003). This finding is opposite to that of Stothers, Gourlay, and Liu, (2005) in their study with American donors where 75% of live kidney donors made their decision instantaneously. The Korean respondents reported that their donation decision was not instantaneous due to suspicions about the recipients' true motives (regardless if the recipient was known or not) as well as the difficulty of the preliminary tests involved with the donation (Yi, 2003).

Some of the most common barriers to being a live kidney donor include the length of hospital stay, out-of-pocket expenses, potential scarring, risk of potential kidney failure for the donor in subsequent years, as well as risks of immediate complications from the surgery (Boulware et al., 2002). Respondents to Boulware et al.'s 2002 study reported median acceptable values for both length of scar and length of hospital stay that were lower than average values that are reported for open nephrectomy. One may then assume that making

potential donors more knowledgeable about the surgical procedures may alleviate fears and suspicions regarding live kidney donation. However, research has uncovered apparent differences in knowledge and beliefs regarding living kidney donation between donors and non-donors (Stothers et al., 2005). In the Stothers' et al. study, only 20% of the participants felt that they were well informed about the surgical process required of a living kidney donor. Because a majority of the respondents felt that their decision was instantaneous, 80% felt that an increase in information regarding the surgery made very little difference in their decision to donate.

While risks, barriers, and difficulties often surround perceptions of live organ donation, recent research has uncovered many benefits associated with living donation. In particular, Stothers et al. (2005) found that there are many psychological benefits to being a kidney donor. Donors, in addition to being pleased with their decisions to donate, feel an increase in their self-esteem (Stothers et al., 2005; Switzer, Dew, Butterworth, Simmons, & Schimmel, 1997). The donor may feel that their organ donation is an act of heroism and that they are contributing to the benefit of society, as they are saving a patient's life and providing hope for the patient's future. These feelings are psychologically uplifting and very affirming for the donor (Neyhart, 2004).

The unbalanced equation of the severity of need and the donation list wait have led to new transplant services that help patients bypass the current organ

procurement system. These services aid patients by facilitating contact with potential live donors. Among these services is the website "Matchingdonors.com". This website posts profiles for patients in need of an organ transplant. Potential donors are then able to sign onto the site and search for patients to whom they would both be compatible with and willing to donate an organ to. This is a nonprofit organization that charges patients $295 a month to post their information on the website in the hopes of finding a donor. The proceeds are applied to site maintenance and scholarship funds for patients unable to pay the monthly fee. The website also claims that the service is free of charge for all potential donors whether they register on the website or not. All potential donors are able to view and browse patient profiles without registering with the website. As of March, 2005, there were nearly 1,800 potential donors have registered on the website (matchingdonors.com, 2005). In essence, there are almost 1,800 people that are considering donating a kidney to a patient in need. Despite the cost, 120 patients have created and posted profiles on the website as of March, 2005. The site gives both patients and donors 24 hour access to profiles and materials and instant access to change their posted information.

A cursory examination, to be described below, of the posted messages indicates that they vary greatly in terms of the information provided by the patient. Although a template is provided for the patients to follow when entering information on their profile, messages still vary in terms of the type and depth of

information patients provide. Various messages include in-depth information regarding a patient's personal life, descriptions of the patient's health, and some discussions of severity of the patient's need. Other messages are brief not only in terms of the description of the patient but also in the discussion of the patient's need. An option to include a photograph of the patient is another variable that distinguishes amongst patient profiles. This varying amount of information provided by the patients led to the first research question:

RQ$_1$: What do the patient profiles look like?

Motivations of the Potential Donors

While the focus of the present study is on the message content of the organ request, it is imperative to consider the audience for which the messages are created. The patients should have an understanding of the motivations of the potential donors who are both registered and not registered on the website so that the patients may more effectively adapt their profiles and describe themselves and their situations.

Davis et al. (1999) proposed that people have a predisposition to empathize. This predisposition has an influence in how individuals make rational decisions regarding the kinds of situations they choose to enter. These decisions are partially based on the kind of affect they expect to experience within that situation. An empathic predisposition influences decision-making processes by affecting emotional expectations. Dispositional empathy has been found to be

associated with a willingness to encounter needy targets (Davis et al, 1999).

Individuals with a predisposition to empathize will be more likely to enter

situations enabling them to fulfill their need to feel empathy for others. By

entering situations where an empathic outcome is expected, individuals also

have higher anticipated satisfaction of their experiences in the particular activity.

Ickes, Snyder, and Garcia (1997) argue that, over time, individuals tend to select

situations that allow the expression of their characteristic personality traits and

values, and then systematically create social environments consonant with their

dispositions. Prior research has also found those with a high level of empathic

concern to have higher reported levels of charitable giving to a muscular

dystrophy telethon and a higher likelihood of initially viewing the telethon (Davis,

1983). Contrary to Davis et al.'s (1999) findings, however, Mattis et al. (2003)

found that empathy did not emerge to be a significant independent predictor of

pro-social participation and volunteerism among African American males.

Although the Mattis et al. study only employed four valid empathy items, it still

raised questions about the influence of different cultural backgrounds on

empathic predispositions and responses.

As Davis et al. (1999) stated, dispositional empathy can influence the

strategic choices that individuals make prior to being exposed to a victim, or in

this case a patient. If those with high dispositional empathy are more likely to

volunteer or sign up for situations where they will encounter needy targets, it can

be suggested that the potential donors registered on the site might be expecting

messages that would also evoke empathic responses. It is important for the patients to understand their audience and to develop messages that are likely to evoke an empathic response. By incorporating the five components of empathy described by Campbell and Babrow (2004, to be described below), patients could create messages more likely to arouse empathy in potential donors. It would likely be important, for instance, for patients to describe themselves in a manner that will elicit perceptions of similarity and to describe their situations in a way that can be understood in order to evoke an empathic response resulting in a potential donor taking action in the form of contacting the patient in need.

To further develop this line of reasoning, it is appropriate to more fully discuss the literature on empathy.

Empathy Literature

The process of organ donation, especially live organ donation, is an altruistic act directed toward saving lives. Psychological research has determined that there is a link between empathy and altruism; Batson (1991) considered empathy a chief enabling process of altruism. The term empathy comes from the German term *Einfühlung,* which was used to refer to the tendency of observers to project themselves "into" what they had observed -- usually a physical object of beauty (Davis, 2004). Davis describes how this definition was adapted in 1902 by Lipps for use first in psychological contexts, then to the study of optical illusions, and finally to people. The word was then translated from *Einfühlung* to the

English term *empathy* by Titchener in 1909 (Davis, 1994). The term was first used to describe an inner imitation of the observed person, the same process that today is explained as motor mimicry (Davis, 1994). The notion of inner imitation later came to focus on affect. Eisenberg (2000) has defined empathy as an affective response that stems from the apprehension or comprehension of another's emotional state or condition and is similar to what the other person is feeling or would be expected to feel.

Empathy is also explained as a perspective taking, or an adoption of the perspective of another (Davis, 1994). There can be discrepancies in how we define perspective taking. Batson, Early, and Salvarani (1997) suggest that there are two potentially different ways of perceiving the other's situation, and these are often confused with one another. Previous analytic studies on the responses to another's severe or unexpected distress support the two different perceptions. Factor analysis ratings for *sympathetic, softhearted, warm, compassionate, tender* and *moved* all loaded on the same factor, while ratings of *alarmed, grieved, troubled, distressed, upset, disturbed, worried,* and *perturbed* were all found to load on a second orthogonal factor (Batson, 1987). The first factor is considered to be the definition of empathy, and reflects an other-oriented emotional response that corresponds with the perceived predicament of the person in need, or a feeling of sympathy or compassion for the target. The second factor is more commonly labeled personal distress. This factor reflects more of a "self-oriented" emotional response that incorporates feelings of

discomfort felt by the witness from observing another person in need. These "self-oriented" feelings are not usually connected to altruistic actions (Batson, 1987; Batson, Early, & Salvarani, 1997; Davis, Mitchell, Hall, Lothert, Snapp, & Meyer, 1999). The implication of the distinction between the two definitions rests on the evidence that directly relates feelings of empathy to the evocation of an altruistic motivation to help relieve the distress of the target of the empathic feelings, whereas "self-oriented" feelings of personal distress bring upon egoistic motivation for the purpose of relieving one's own distress (Batson, 1991; Batson, Early, & Salvarani, 1997).

There is also much confusion between empathy and sympathy. Eisenberg, Wentzel, and Harris (1998) describe sympathy as being a consequence of empathy. Sympathy consists of feelings of sorrow and concern for another in need, often evoked by the same affective response that evokes empathy. The difference is that those who sympathize are not necessarily feeling the same emotions as the person in need -- rather, they are only feeling other-oriented concern (Eisenberg et al, 1998).

For the purpose of the present study, empathy is defined as sharing the subjective experience of another person (Campbell & Babrow, 2004). Based upon an extensive review of the empathy literature, Campbell and Babrow (2004) have identified five factors that are most frequently involved in empathic arousal. The five parts of empathy are identification, understanding the context, emotional concordance, concern for other, and verisimilitude or realism.

Identification. Understanding the target as similar to one's self brings about a motivation to act for the benefit of the target. Krebs (1975) found that those who believed they were more similar to target individuals experienced stronger psychophysical reactions than those who believed they were different from the other. Without identification and feelings of similarity, one may not attend to a message. Campbell and Babrow (2004) suggested that identification is an important component of empathy, in that it is imperative for establishing message relevance. In the context of the patient profile messages, the inclusion of personal information and characteristics by a potential donor would be more likely to lead to identification with the patient and their experiences than would the lack of such information.

Understanding the context. When people believe that they are able to identify with another, they ultimately believe that they are sharing values, traits, beliefs and experiences with another. While this identification leads to feelings of similarity, it does not give the individual the ability to understand how the apparently similar person has arrived at the current predicament. Without this contextual understanding, the empathic reaction will likely be limited (Campbell & Babrow, 2004). In terms of the patient profiles on the matching donors website, if a potential donor is able to find similarities with a patient, but does not understand how the patient got to the current position or does not understand the reasoning for their need, the impact of the empathic arousal may not be as intense.

Emotional Concordance. Both cognitive and affective aspects play a significant role in the arousal of empathy (Kerem, Fishman, & Josselson, 2001). In order to empathize, one must not only share another's perceptions or beliefs and values, but must also be able to share in the emotions resulting from those beliefs and values (Campbell & Babrow, 2004). Kerem, Fishman, and Josselson (2001) also found that participants in their study whose empathic experiences were associated with strong emotional components often reflected a fuller and more meaningful relational experience overall. When patients include information about their feelings, frustrations, or worries, the potential donors are better able to share these affective emotions that the patient is also feeling.

Concern for the other. Along with the significance of an emotional and cognitive connection with the targeted person, a feeling of concern is also a basic element of empathy. Concern is consistently described as one of the essential components of an empathic state (Campbell & Babrow, 2004; Davis et al., 1999; Eisenberg et al., 1998). If an individual identifies with a targeted person but does not feel concern on his or her behalf, it is suggested that egoistic considerations emerge instead of empathic feelings. These feelings are not associated with helping the needy, especially when an escape is easily found (Davis et al., 1999). Instead of outwardly reacting or providing support to the situation, the feelings of personal distress are internalized (Campbell & Babrow, 2004). Concern helps facilitate involvement and motivation toward message processing. If a potential donor feels concern for the patient, he or she is more likely to take action to help

the patient. Not only are donors able to put themselves into the perspective of the patients' feelings, but the donors feel a need or a reason to aid in the situation.

Realism or Verisimilitude. This component pertains to the information that one gathers from the target person and whether he or she perceives the information to be realistic or true. If one does not believe that the information given is realistic, then the other elements (identification, concern, and understanding) will all be inhibited (Campbell & Babrow, 2004). If the request message that is posted by the patient does not appear to be believable or seems to be an over-reaction to a situation, the overall potential for empathic arousal will decrease.

A message that incorporates each of these five factors would likely have the highest potential of evoking empathic arousal. An example of such a message would include patient information regarding personal characteristics that would enable a potential donor to identify with the patient and create perceived similarity with him or her. The message would also need to create a context for the patient's need. This could be done through explaining the patient's situation as well as events that have led to the current state of need. In addition to information regarding the patient and context, emotional appeals need to be incorporated. Values and beliefs of the patient should be described in the message to allow potential donors to share in the patient's emotional plight as well as feel concerned on the patient's behalf. Lastly, a sense of reality would

need to be portrayed by the patient by giving enough information to convey a realistic situation without seeming to over-react in the contextual or emotional information. According to the perspective developed by Campbell and Babrow (2004), a message with all of the mentioned components will be most likely to evoke an empathic arousal.

Empathic feelings have been found to be an effective means of motivating individuals to help reduce the empathy-generating need (Batson, 1991). By clearly laying out the need, the patient is then hopeful that they are able to persuade a potential donor to offer the requested organ.

Empathy in Persuasion

The role of empathy in persuasion has been studied previously in the context of Public Service Announcements (PSAs). Bagozzi & Moore (1994) found that watching emotionally intense PSAs regarding anti-child abuse stimulated a strong desire to help and to contribute to support the goals of the sponsoring organization. These findings are consistent with research that suggests that fear and other negative emotions can have positive effects on behavior in certain circumstances. Slater's (1999a) study of randomly sampled drinking and driving PSAs indicated that messages relating to empathy were more prevalent than fear appeal strategies. These empathic messages were more difficult than non-empathic messages to avoid or counter argue because instead of emphasizing the consequences to one's self, the focus was on the

consequences that others faced. These messages appeal to fundamental human norms of decency and concern for others (Slater, 1999a). Empathy has also been incorporated into the Elaboration Likelihood Model of persuasion developed by Petty and Cacioppo in 1986 (Skumanich & Kintsfather, 1996). Skumanich and Kintsfather determined that both issue involvement and empathy arousal were not only important elements to consider in the design of organ donation card promotions but were also imperative in determining the success of a message.

A study relating specifically to donation issues found six different motive types describing those donating bone marrow to unrelated recipients (Switzer et al, 1997). Of these six motive types, approximately one-fifth of the 343 respondents described their donating motivations as empathy-related (Switzer et al, 1997). These donors seemed to be putting themselves in the place of the person who needed bone marrow or in the place of that donor's family members. Empathy appeared to be triggered by many motivations, including similarities between the donor and recipient, similarities between the recipient and someone close to the donor, or by simply seeing another who was ill (Switzer et al, 1997). These motivations provide support for the first component of empathy, identification. Donors who were motivated by empathic concern were less likely to experience psychological difficulty one year after their donation than were donors who were not motivated by empathy. As previously mentioned, those who reported empathy and positive feeling motives also felt like better persons for having donated bone marrow than those who did not report those motives.

Women were almost twice as likely to report empathy as a reason to donate than were men. This gender difference is not surprising, in that our societal norms tend to portray women as more nurturing and caring than men (Switzer et al, 1997). Women were also found to score significantly higher on empathy scores within the medical setting (DiLalla, Hull & Dorsey, 2004).

Slater (1999b) suggests the use of empathy appeals in behavioral influence strategies in messages because of their practical potential in influencing attitudes or behavior. The incorporation of empathy within a persuasive model of organ donation may lead to improvements within the tailoring of health recruitment and education strategies and encouraging donors to view donation processes more comprehensively. It may also help in the creation of practical suggestions for recruitment and education of donors.

RQ$_2$: What patient profile components create the most persuasive messages?

Rationale

The study proposed within this paper attempts to build upon current research examining the role of empathy in persuasive health campaigns, especially within the context of organ donation. With an increase in proactive methods for obtaining an organ transplant, the present study attempts to predict which messages are most productive in obtaining responses and interest from

potential organ donors. The findings then could be used to aid patients in creating messages that may be effective at eliciting offers or interest in donating an organ to a needy individual.

The five constituents of empathy will also be evaluated to determine if all five parts contribute equally to empathic arousal. It is hoped, then, that this study will help researchers understand not only the process of organ donation, but also the broader role of empathy in persuasion and health communication. Several hypotheses will be addressed. These hypotheses will be addressed in a two phase study, to be described in the following chapter. The study will begin with a content analysis of messages from a donor matching site. Scores on the content analysis will be compared to responses to the website messages. The second phase of the study will assess reactions to messages that have been rated especially high and especially low in empathy arousal during the content analysis phase. Respondents will be asked their reactions to the messages, both in terms of empathy arousal and likelihood of organ donation. Both the content analysis and the survey instrument will be based upon the Empathy Response Scale (ERS), developed by Campbell and Babrow (2004).

Consistent with Campbell and Babrow (2004), in order to gain internal consistency and validity, it is important that the coding performed by the investigator for a message's potential to evoke empathic arousal has similar results to the scores obtained by respondents completing the message questionnaire and the Empathy Response Scale (ERS). The following hypothesis

is posited in order to validate both the manipulation of message and the investigator coding:

H1: Respondents' ERS scores will differ in messages coded for high empathic arousal and those coded for low empathic arousal

The main focus of this study is to determine if empathy plays a role in the persuasive impact of organ donation profiles. The review of the literature argues that a message's level of empathic arousal has an impact on its persuasive effect. Therefore, the following predictions are made:

H2: There will be a difference between subject's empathy scores on the ERS and their likelihood of organ donation between the different messages.

H3: Messages that score high in potential to evoke empathic arousal will receive more website responses than those that score lower in arousal potential.

As previously noted women are found to have higher scores on various empathy scales and are also more likely to report empathy as a reason to donate than are men (Dilalla et al, 2004; Switzer et al, 1997). The following two predictions are made with this research in mind:

H4: Messages written by women will receive higher empathy scores on the ERS scale than those written by men.

H5: Potential donors who are women will have higher empathy scores

on the ERS scale than will potential donors who are men.

As mentioned, there are five constituents that are proposed to be imperative in experiencing full empathic arousal. The literature is consistent in arguing that identifying with and feeling similar to the target increases the likelihood of empathy. If one does not feel similar to or identify with the target, the other constituents of empathy would be less likely to have an effect on the emotion. For this reason the following two predictions are offered:

H6: Messages that include a larger number of patient's personal

characteristics will receive a larger number of website responses.

H7: Identification will be the most predictive of the five key constituents

of empathy to evoke an empathic arousal.

Chapter II

Methods

The methodological approach to this study is multifaceted and can be described in three parts. An overview of the process is provided for clarity. Patient profile messages were collected from the website: http://www.Matchingdonors.com. The initial step of the data collection involved coding these messages for their inclusion of the five constituents of empathy, various patient characteristics, the severity of the message, the written components of the message, as well as limitations posted by the patients. The purpose of the coding was to determine the potential for each message to evoke empathic arousal. For the second step, eight coded messages were selected for inclusion within a questionnaire. Of the eight messages, four messages had high potential to arouse an empathic response and four messages had low potential. The questionnaire was administered to respondents in order to obtain organ donation information, as well as measure their empathic response to the included message. Level of empathic response was measured using the Empathy Response Scale developed by Campbell and Babrow (2004).

The third portion of data collection involved directly contacting the patients. In order to measure the effectiveness of the posted messages, patients

were contacted to determine the number of responses that their posted message had received from potential donors also registered on the website. Both the questionnaire information and the actual message response rates aid in determining effective components of the patient profile messages.

Subjects

Due to time constraints and cost limitations, participants were recruited for the study via a snowball sample. Undergraduates enrolled in a communication course in a private Midwest University in Southwestern Ohio had an opportunity to receive extra credit by distributing questionnaires over a spring semester break. The questionnaire required participants to be over the age of 25 and unaffiliated with the University. Because the study was focusing on an adult population, the undergraduates themselves were not appropriate for the sampling frame. It was hoped that a large and varied sample size could be obtained by having these students recruit participants from various hometown locations. After omitting surveys unfit for the study, a total of 406 participants completed questionnaires. The mean age for these participants was between 31-40 years. Surveys that did not appear to have followed the directions of the study were omitted. For instance instead of each respondent only receiving one message and one questionnaire, it was apparent that some respondents completed eight surveys, one for each of the messages. These completed

surveys similar demographic and organ donation information and only differed in message type and message arousal. These surveys were unfit for data analysis.

Procedure

A content analysis was performed on patient profile messages posted on the website http://www.matchingdonors.com. The coding scheme for this content analysis will be described below. These messages were posted by patients registered on the website describing their need for an organ transplant. The messages selected for the study included only those messages under the category of kidney donation. Messages requesting other organs were not studied. Within the category of kidney requests, there were 68 available messages, all of which were obtained for the analysis. These messages were printed on March 13, 2005. Although there were 128 patients requesting a kidney donor, 60 of those messages were private or confidential patients where their messages were not available to be viewed without signing onto the website as a potential donor. The primary researcher then read the available messages and through an initial examination noted several differences among the messages.

After agreeing upon the meaning of the coding scheme, two trained coders used and independently first read and coded 20 of the 68 messages in order to establish inter-coder agreement. The reliability level was found using the coefficient of reliability developed by Holsti (1969). The reliability coefficients for

the messages received a score of .68 or above with a majority score above .90. After the percentage of agreement for inter-coder reliability was established, the remaining messages were then coded for their potential to evoke an empathic response by the primary researcher. Categories for coding include the five proposed constituents of empathy (identification, understanding context, realism, concern, and emotion); all which were previously coded by Campbell and Babrow (2004). Efforts to establish content validity were made by Campbell and Babrow (2004) based on significant paired *t*-tests which suggested that the ERS distinguishes messages along the five dimensions. The paired *t*-tests were conducted on total and subscale ERS scores. Total ERS scores and subscale scores were significantly higher for messages that were anticipated to have a high potential for empathy-arousal than those messages that were anticipated to be low in their arousal potential. Messages were coded as high potential if they each of the five components of empathy—identification, emotion, concern, understanding the context, and verisimilitude. Additional coding categories included patient characteristics, severity of message, written message technique, and donor limitations. A copy of the coding scheme is attached in Appendix A.

After all 68 of the patient profile messages were coded from the Matching Donors website; eight messages were selected to be included within the survey and ERS. Of the selected messages, four were coded by the researcher to have high potential for empathic arousal while the other four messages were coded by the researcher to have low potential to evoke empathic arousal. These eight

messages were then distributed randomly to participants along with the empathy response scale questionnaire to further evaluate the messages' potential to evoke an empathic response. This questionnaire will be described below.

Instrumentation

Independent variables. The empathy response scale (ERS) developed by Campbell and Babrow (2004) was used in measuring individual empathic arousal after exposure to an organ donation request message. The scale was originally developed to measure empathic response due to media exposure. The ERS measures responses in regard to the five proposed components of empathy 1) identification (e.g. "The message shows or describes someone who seems a lot like me or some of my friends, in many ways") 2) realism/verisimilitude (e.g. "The message describes a situation that could really happen") 3) understanding (e.g. "I can understand how someone could have a bad experience like the one talked about in the message") 4) concern ("I wish there was something I could do to help people like those described in the message") 5) emotion ("I was moved by the message"). A Chronbach's alpha score of .92 was reported by Campbell and Babrow (2004) for the reliability of the entire ERS Scale. The five individual subscales were combined into three individual subscales because of factor loadings. The subscales included Congitive (Realism and Understanding combined), Affective (Emotion and Concern combined), and Identification.

Cronbach's alpha for each of the subscales was .88, .89, and .80 respectively (Campbell & Babrow, 2004).

Because the scale was initially developed to measure empathy in regard to viewing HIV public service announcements, questions had to be reworded in order to fit the context of organ donation. Words such as "described" were substituted for "shown", as the messages were written text and not media images. A few ERS items were eliminated because of a lack of applicability. For example, these items included "I believe educated or intelligent people would not have experienced the problem", "I am baffled by people who get in situations like the one described", and "The message describes a situation that is purely a fantasy". The last adjustment to the ERS scale included eliminating questions to create a survey shorter in length. Numerous questions appeared to be asking the same or similar information; these questions were decreased to a fewer number that both gathered and encompassed the same information.

Other independent variables were also coded during the content analysis of the messages. These variables included personal characteristics, message severity, and written message technique. Personal characteristics included the number of attributes that were mentioned in the message regarding the patient (e.g. mention of hobbies, family, ethnicity, education). Message severity was coded as to severity of need as stressed within the message (e.g. degree of plea, previous transplants, severity of need).

Written message technique was assessed by how the message was structurally

put together (e.g. grammar usage, spelling errors, coherence)

Dependent variables. The key dependent variable that was measured during

this study was the number of responses received by individual messages posted

on the website. In order to obtain this information, patients whose messages

were to be included in the study were contacted regarding the research purpose.

Patients with posted messages were only able to be contacted through the

Matching Donors website by registered potential donors. Because of the ethics

involved with the researcher registering onto the website, the patients were

contacted via the telephone. The patients to be contacted include first those

whose profiles were included in the coding. Of the specified group of patients,

those who have provided contact information within their message were then

contacted. When the patients were contacted, a brief introduction of the

researcher and research project will be explained. The patients will then be

given the opportunity to provide information regarding their posted profile to be

included in the study. Once the patients had given their consent, they will be

asked questions regarding the number of responses their posted message has

received, the methods in which they have received those responses (phone, fax,

or email), as well as if they have changed their message since it's posting. This

information will aid in determining the effectiveness of the posted messages.

<u>Data Analysis</u>

After the data collection is competed; statistical tests will be performed in order to analyze the proposed hypotheses of the study. A factor analysis with orthogonal (varimax) rotation was used to analyze the responses to the ERS to ensure that the questions were included under the correct construct. The criteria for interpreting items and factors included items loading with at least .60 without a secondary loading of above .40 (McCroskey & Young, 1979). After the questions properly loaded into the construct factors, the hypotheses were then analyzed. Reliability of the questionnaire items was assessed using Cronbach's alpha.

The first hypothesis proposed that there would be differences between the respondents' ERS scores and message levels of low and high potential of empathic arousal and will be carried out by a series of paired t-tests with a .05 level of significance. The paired t-tests will be conduced with the total ERS score and the five subscale scores for each of the eight messages. The purpose of this hypothesis is to establish construct validity by determining that the researcher's coding structure is comparable to the respondent's scores on the Empathy Response Scale.

The second hypothesis posits that there will be a difference between respondents' empathy scores obtained by the ERS and the possibility of them donating an organ. This hypothesis will be analyzed using a Univariate Analysis

of Variance with the empathy scores as the Independent variable and possibility of donating as the dependent variable.

The third hypothesis will also be analyzed using a Univariate Analysis of Variance looking for a difference in empathic arousal potential with the number of website responses. The dependent variable of website responses is separated into three levels of low, medium, and high responses.

The next two hypotheses will be analyzed using a factorial ANOVA. Variables of gender and message type (low and high empathic arousal) will be entered into the factorial ANOVA to assess their influence on ERS scores.

The sixth hypothesis proposes a relationship between the number of personal characteristics (0-10) and the level of website response. This analysis will be carried out with a correlation of the two variables.

The final hypothesis will be evaluated using a multiple regression analysis. A step-wise multiple regression will be performed with all five of the key constituents of empathy (identification, realism, understanding context, concern, and emotion) in order to find the unique contribution each component has with the likelihood of donation. This analysis will be able to determine which (if any) of the five components account for the highest amount of variance as well as if there is an issue of multicollinearity.

Chapter III

Results

The findings of this study are discussed within the sections originally described in chapter 2. The first section of the data collection included the content analysis of the patient profile messages, the second section included the survey information that accompanied one of the eight patient profile messages, and the final section included telephone interviews with patients whose profile messages were included in the content analysis. The results from each data collection method as well as the seven posited hypotheses are discussed in detail before a discussion of the results.

Content Analysis

RQ_1: What do the patient profiles look like?

A content analysis was performed for each of the sixty-four patient profile messages from the Matching Donors website on March 13, 2005. This content analysis also aided in the answering of the first research question. Of the posted messages, 44% of the patients were male and 54% were female. While almost 40% of the patients did not list their age on their profile message, the messages of those who had chosen to report their age had a mode age of "40-49" years

with a wide age range of "younger than 19" to "over 70". As for the location of the patient's residence, the highest frequency of patients live in Colorado (14.1%) or New York (14.1%) with the second highest frequency reported being from Texas (7.8%). Eighty-nine of the profile messages were written by the patients themselves, nine percent were written by a spouse, parent, or other relative and the remaining one percent having the message written by a patient's friend. The most requested donor blood type was "O", found in 28% of the messages, followed by a more specific "O+" in 20% of the messages. Donor blood types of "A+" and "A or O" were found in 10% of the messages each. These frequencies are reported in Tables 1 through 5.

When coding messages for their potential to evoke empathic arousal, only messages that included each of the five key components of empathy— identification, emotion, concern, realism, and understanding—were coded as being high in their potential of evoking an empathic arousal. Messages that only included four components or fewer were coded as being low in their empathic potential. Of the 63 coded messages, 62% were coded as low empathic messages and 38% were coded as high empathic messages. These numbers are reported in Table 6.

Table 1

Frequency of Gender Reported in Patient Profile Messages

Gender	Frequency	Valid Percent
Male	28	44.4
Female	34	54.0
Unlisted	1	1.6
Total	63	100.0

Table 2

Frequency of Age Reported in Patient Profile Messages

Age	Frequency	Valid Percent
Under 19	1	1.6
20-29	1	1.6
30-39	10	15.6
40-49	12	18.8
50-59	6	9.4
60-69	6	9.4
Above 70	2	3.1
Unlisted	26	39.1
Total	64	100.0

Table 3

The Frequencies of Patient's Location as Reported in Patient Profile Messages

Location	Frequency	Valid Percent
Unlisted	5	7.8
AZ	4	6.3
CA	4	6.3
Canada	2	3.1
CO	9	14.1
FL	4	6.3
GA	1	1.6
IL	5	7.8
IN	1	1.6
MA	3	4.7
MI	3	4.7
NJ	2	3.1
NY	9	14.1
OH	1	1.6
PA	1	1.6
Puerto Rico	1	1.6
TX	5	7.8
VA	1	1.6
WA	2	3.1
WI	1	1.6
Total	64	100.0

Table 4

Frequencies of the Author of Patient Profile Messages

Message Author	Frequency	Valid Percent
Self	56	88.9
Spouse	2	3.2
Parent	2	3.2
Relative	2	3.2
Friend	1	1.6
Total	63	100.0

Table 5

Frequencies of Donor Blood Type Requirement as Reported in Patient Profile Messages

Blood Type	Frequency	Valid Percent
A	2	3.1
A-	1	1.6
A	2	3.1
A, AB, O	1	1.6
A, O	6	9.4
A+	6	9.4
All Types	1	1.6
B	1	1.6
B, O	5	7.8
B,O	1	1.6
B+	4	6.3
B+,O	1	1.6
O-	1	1.6
O	19	29.7
O+	13	20.3
Total	64	100.0

Table 6

Frequency of Message Types of Coded Patient Profile Message

Empathic Arousal Potential	Frequency	Valid Percent
Low	40	62.5
High	24	37.5
Total	64	100.0

Factor Analysis

An orthogonal factor analysis with varimax rotation was conducted on the five separate factors of empathy discussed in the first chapter—identification, emotion, concern, realism, and understanding context. The criteria for the factors consisted of a factor loading of at least .6 without a secondary loading of above .40 (McCroskey & Young, 1979). The results of the factor analysis did not yield a five-factor solution. Instead, the factor analysis revealed a three-factor solution that was also reported by Campbell and Babrow (2005). The first factor, Identification loaded as one factor while the emotion and concern items combined to create a second factor, and understanding and realism combined for the third factor (see Table 7). Although there is not a perfect .60 factor loading for each of the factors, the present factors loadings are consistent with previous research (Campbell & Babrow, 2005) in which the three factors included an identification subscale, an affective subscale (including emotion and concern) and a cognitive subscale (including understanding and realism). These three factors explained 67.17% of the variance. The ERS and subscales were then tested for internal reliability. Chronbach's alpha for the total ERS was .94. The alphas for the resulting subscales of identification, affective, and cognitive were .77, .92, and .83 respectively.

Table 7

Factor Analysis Rotated Component Matrix

ERS Survey Questions	Component		
	1	2	3
ID 1	.298	.672	.231
ID 2	.402	.722	.226
ID 3	.167	.740	.225
Concern 1	.757	.183	.250
Concern 2	.732	.417	.170
Concern 3	.795	.172	.271
Concern 4	.580	.516	.427
Emotion 1	.629	.567	.305
Emotion 2	.654	.406	.258
Emotion 3	.481	.308	.387
Emotion 4	.552	.381	.509
Understand 1	.274	.595	.447
Understand 2	.267	.205	.671
Real 1	.232	.386	.695
Real 2	.390	.084	.667
Real 3	.137	.313	.781

Survey Data

Of the 406 respondents who completed the survey, 51.8% were females with an average age between the years 31-40 as shown in Table 8. Table 9 reports that seventy-eight percent of the respondents self-reported themselves as Caucasian, 14% as African American, and the remaining 8% as Hispanic or Asian-American population. A substantial number of the survey respondents

were college educated; 38% reporting having "some college" education, 35% reported that they had received their bachelor's degrees and 10% reported having completed some graduate work. The remaining seventeen percent reported either a grade school or high school education. These results are presented in Table 10. In regards to beliefs relating to organ donation, 82.7% of the respondents reported that they either 'somewhat disagree'—'disagree'—or 'strongly disagree' with organ donation; 8.4% report that they are 'Unsure' to what their beliefs are toward organ donation, and the remaining 8.9% report that they either 'somewhat agree'—'agree'—or 'strongly agree' with organ donation. These percentages are surprising, especially when half of the respondents (49.8%) had identified themselves as being an organ donor either on their driver's license or by signing an organ donor card as reported in Table 11. Fourteen percent of the respondents reported being aware of a friend or family member who had received an organ donation through a living donor, and 9.8% of the respondents were aware of a friend or family member to receive an organ through a cadaveric donation. Frequencies of the previous findings are reported in Tables 12 and 13, respectively.

Table 8

Frequencies of Gender of Survey Respondents

Gender	Frequency	Valid Percent
Male	191	48.2
Female	205	51.8
Total	396	100.0
Missing	10	
Total	406	

Table 9

Frequencies of Survey Respondents' Age

Age	Frequency	Valid Percent
Under 21	7	1.7
21-30	172	42.6
31-40	76	18.8
41-50	75	18.6
51-60	53	13.1
61-70	16	4.0
71 or higher	5	1.2
Total	404	100.0

Table 10

Frequencies of Education Levels of Survey Respondents

Education	Frequency	Valid Percent
Grade School	4	1.0
High School	67	16.6
Some College	154	38.2
Bachelor's Degree	140	34.7
Graduate Work	38	9.4
Total	403	100.0

Table 11

Frequencies of Survey Respondents' Beliefs in Organ Donation

Belief in Organ Donation	Frequency	Valid Percent
Strongly Agree	137	33.9
Agree	137	33.9
Somewhat Agree	60	14.9
Unsure	34	8.4
Somewhat Disagree	21	5.2
Disagree	14	3.5
Strongly Disagree	1	.2
Total	404	100.0

Table 12

Frequency of Respondents' Report Having a Friend/Family Member Receive an Organ Through <u>Live</u> Donation

Friend/ Family Received Live Organ	Frequency	Valid Percent
Yes	58	14.4
No, not that I am aware of	345	85.6
Total	403	100.0

Table 13

Frequency of Respondents' Report Having a Friend/ Family Member Receive an Organ Through <u>Cadaveric</u> Donation

Friend/ Family Received Cadaveric Organ	Frequency	Valid Percent
Yes	39	9.8
No, not that I am aware of	361	90.3
Total	400	100.0

<u>Hypothesis Tests</u>

<u>Hypothesis 1:</u> Respondents' ERS scores will differ in messages coded for high empathic arousal and those coded for low empathic arousal

For the analysis of the first Hypothesis an independent *t*-test was run to examine differences in ERS scores from the survey data between the messages previously coded to be high in empathic arousal (high empathy) and messages coded to have low potential to evoke an empathic arousal (low empathy). As

shown in Table 14, the mean total ERS score for the high-empathy message was significantly higher than the messages judged to be lower in their potential to evoke an empathic arousal, $t(404) = 11.36$, $p < .001$. Independent t-tests were also performed on each of the five subscales to examine differences between the high and low empathy messages, also displayed in Table 14. The mean subscale score for the high empathy messages was also significantly higher than the low empathy messages in each of the five subscales; identification ($t(404) = 9.62$, $p < .001$), concern ($t(404) = 9.33$, $p < .001$), emotion ($t(404) = 10.407$, $p < .001$), understanding ($t(404) = 10.90$, $p < .001$), and realism ($t(404) = 7.77$, $p < .001$).

Table 14

The Effect of Message Type on Total ERS and ERS subscale scores

ERS and Subscales	High Empathy	Low Empathy
Total ERS	88.22*	71.62
Identification Total	14.90*	11.54
Concern Total	22.82*	18.75
Emotion Total	21.73*	17.00
Understanding Total	11.37*	9.08
Realism Total	17.40*	15.26

*Subjects reading high empathy messages had significantly higher means on ERS and ERS subscales than those reading low empathy messages

Hypothesis 2: Respondents with higher empathy scores toward a message will be more likely to donate their organs than those with low empathy scores.

H_2 proposed that respondents feeling more empathy toward a message would be more likely to donate their organs than those reporting lower empathy levels. Empathy was measured with the total ERS scores, and separately by an additional survey question "To what extent did you feel empathy for the person described above?" The response to the question had four levels: I felt no empathy for the person, I felt a little empathy, I felt a moderate amount of empathy, and I felt a great deal of empathy for the person in the organ request message. The likelihood that one will donate their organ was measured by the survey question: "This message would make me think about possibly donating a kidney to someone" with responses ranging from strongly disagree (1) to strongly agree (7). A one-way analysis of variance comparing levels of empathic response as they impacted the possibility of donating an organ confirmed this hypothesis, $F_{(1,3)} = 105.406$, $p < .001$. Significant differences in empathy levels were found on one's likelihood of donating an organ. A Tukey HSD post hoc analysis further revealed four significantly different subsets ($p < .001$). The possibility of donating an organ was the least under "I felt no empathy for the person", significantly greater under "I felt little empathy", significantly greater again under "I felt a moderate amount of empathy", and significantly largest under "I felt a great deal of empathy for the person".

Table 15

The Effect of Empathy Levels on the Likelihood of Donation

Empathy Level	Mean	Std. Deviation	N
I felt no empathy for the person	2.30	1.334	33
I felt little empathy	3.46	1.311	106
I felt a moderate amount of empathy	4.77	1.291	146
I felt a great deal of empathy for the person	5.85	1.132	117

Hypothesis 3: Messages that score high in potential to evoke empathic arousal will receive more website responses than those that score lower in arousal potential.

The third hypothesis proposed that the patient profile messages that were judged to have higher potential to arouse empathy would receive more responses on the matching donor website than profile messages judged to be low in empathic arousal. Although the mean number of responses for the high empathy messages is greater than the low empathy, as reported in Table 16, the difference is not great enough to be significant. Therefore, the third hypothesis was not supported, as there were no significant differences between high and low levels of empathic ability of a message on the number of website responses received, $t(17) = .175$, $p=.863$ It is quite possible that the small sample size and subsequent low power played a role in this lack of statistical significance.

Table 16

The Effect of Message Type on Mean Response Rates

	High Empathy	Low Empathy
Number of Responses	2.69	2.50

Hypothesis 4: Messages written by women will receive higher empathy scores on the ERS scale than those written by men.

Hypothesis 5: Potential donors who are women will have higher empathy scores on the ERS scale than will potential donors who are men.

Hypotheses four and five offer predictions regarding gender differences associated with empathy. H_4 states that messages written by women will receive higher empathy scores on the ERS than those messages written by men. Two independent t-tests were performed to analyze these gender differences. The first t-test analyzed differences based on the gender of the message author on the total ERS scores received. The analysis yielded significant results, although in the opposing direction of the hypothesis' prediction. Messages written by men had significantly higher ERS scores than messages written by women $t(115) = 5.49$, $p < .001$. In order to further examine this finding, a second t-test analyzed differences based on the message author's gender with the single empathy score on the questionnaire (question 17). This result was consistent with the first analysis, in that messages written by men had significantly higher empathy

scores on question 17 than those messages written by women, $t(115) = 3.023$, p <.05. Findings for both analyses are found in Table 17.

Table 17

The Effects of the Message Author's Gender on Empathy and Total ERS scores

Empathy Measures	Male	Female
Total ERS score	86.15*	71.42
Empathy Question (17)	3.06*	2.57

*Messages written by men had significantly higher ERS and Empathy scores

Continuing with the differences caused by gender on empathy scores, H_5 predicted that female respondents will have higher scores on the ERS than male respondents will have. A two-way factorial analysis of variance was performed for the analysis with Message and Gender as the independent variables to assess any interaction effects. As reported in Table 18, main effects were significant for gender; $F(1,396) = 8.44$, $p = .004$, as well as for message, $F(7,396) = 25.94$, p <.001. These main effects show that there are differences in empathy scores between the eight messages, as well as differences in empathy scores between the two genders. There was no significant interaction effect between messages and gender, $F(7,396) = .305$, $p = .951$. These results do confirm the prediction stating that woman have higher empathy scores on the ERS questionnaires than men.

Table 18

The Effect of Gender on Mean ERS Scores

Message	Male	Female*
1	2.83	3.38
2	2.33	2.79
3	3.11	3.38
4	2.33	2.10
5	3.20	3.48
6	2.77	3.07
7	2.83	3.28
8	1.85	2.65
Total	2.71	2.99

Hypothesis 6: Messages that include a larger number of patient's personal characteristics will receive a larger number of website responses.

H_6 predicted a relationship between the number of patient characteristics included in the profile message and the number of responses that the message received. The hypothesis was not supported by the Pearson Correlation. There was no direct correlation between the number of characteristics provided and the number of responses received, $r = .199$; $n = 19$; $p = .767$.

Hypothesis 7: Of the five proposed constituents of empathy, identification will be the most predictive of the likelihood of donating an organ

The final hypothesis, H_7, argued that identification would be most predictive of the likelihood of organ donation out of the five key components of empathy. A step-wise regression was used to test the unique contributions of the ERS subscales on one's intent to donate an organ. The analysis was first performed using the three factors determined by the factor analysis-- identification, affective subscale, and the cognitive subscale. The analysis confirmed that two of the three subscales were significantly related to intent to donate-- the affective subscale; β = .56, F (2,400) = 232.98, p< .001 and identification; β = .21, F (2,400) = 232.98, p< .001. The cognitive subscale was excluded from the regression, as it was not found to be predictive of intent to donate. The two subscales identification and affective together accounted for 53.8% of the total variance.

A second step-wise regression was conducted using all five subscales in order to find further unique contributions. The variables of identification, emotion, concern, realism, and understanding were entered into the regression with the likelihood of donation remaining as the dependent variable. Variables of concern, identification, and emotion were all found to be predictors of the intent to donate, accounted for 54% of the variance. Concern was found to have the largest contribution β = .37, F (3,399) = 156.36, p< .001, followed by identification β = .22, F (3,399) = 156.36, p< .001, and finally emotion β = .20, F (3,399) = 156.36, p< .001. The subscales of understanding and realism were excluded from the regression as they were not significant in predicting the intent to donate. This

finding was consistent with the analysis of the three factor regression where the cognitive subscale was a good predictor, in that understanding and realism combine to make the cognitive subscale.

The third and final section of the data analysis consisted of patient telephone interviews. These data aided in the reporting of the number of website responses the profile messages had received. The interviews also served the purpose of gathering further insight and comments in regards to the patient profile messages.

Telephone Interviews

Of the sixty-four messages printed from the Matching Donors website included in the content analysis, 47 of those messages had phone numbers included in the profiles. These patients were able to be included for the telephone interview. Forty-seven patients were telephoned with a total of 21 patients were able to be reached for comment in the study. The remaining patients were either not interested in participating in the study or were unavailable for comment. The following information was collected from the 21 contacted patients. The mean time that the patients' had a message posted on the website was 5.8 months, S.D. = 4.9. Twelve of the 21 patients (57.1%) had made changes to their original message on the website to either make revisions or to add additional information to their profile. All of the patients (100%) reported that they were contacted most frequently via the Matching Donor website private

email, however they did occasionally receive telephone calls and emails to their private email addresses. There was a wide range in the numbers of responses received from potential donors regarding the patients' posted messages. Over half (52.4%) of the contacted patients had received at least 1-10 valid responses, 19% of the patients reported receiving 21-30 responses, while the third highest reporting was 9.5% patients receiving over 60 responses from potential donors. These results are reported in tables 19 through 21 in their respective order.

Table 19

Length of Time of Message Posting in Months

Months	Frequency	Valid Percent
2.00	1	4.8
3.00	5	23.8
4.00	5	23.8
5.00	4	19.0
5.50	1	4.8
6.00	2	9.5
12.00	2	9.5
24.00	1	4.8
Total	21	100.0

Table 20

Frequency of Patients Reporting Changes Being Made to Patient Profile

Made Changes	Frequency	Valid Percent
Yes	12	57.1
No	9	42.9
Total	21	100.0

Table 21

Frequency of Responses Received by Potential Donors Reported by Patients

Number of Responses	Frequency	Valid Percent
1-10	11	52.4
11-20	1	4.8
21-30	4	19.0
31-40	1	4.8
41-50	1	4.8
51-60	1	4.8
over 60	2	9.5
Total	21	100.0

Chapter IV

Discussion

One of the most urgent needs currently in the nation, at least for the

62,434 patients patiently waiting on the kidney wait-lists, is to increase organ

donation rates. Efforts to improve these rates along with current innovative

methods of finding a live donor through the internet have been explored through

Chapter 1. This study was designed to determine what information is being

provided by patients who post messages on the Matching Donors website in,

order to distinguish messages receiving positive results from those messages

that are responded to less positively. The study also explored empathy as it

relates to the context of organ donation to determine its role within persuasion.

The findings of this study are discussed within the context of the patient

profile messages, the role of empathy in persuasion, as well as insight gathered

from the telephone interviews with the patients, all which were reviewed in

Chapters 1 and 2.

The results give further insight into the patient profile messages, while

also creating an understanding of the types of patients who are registered on the

Matching Donors website as well as the types of information they have provided.

The patients with profile messages also reported similar characteristics to the

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national data for kidney transplant need, showing a sample that was

representative of this need. The results of the analyses were successful in finding

support for previous research regarding empathy, as well as adding new

information about empathy within the context of organ donation. Support was

found for the initial proposal of empathy providing a function within persuasive

attempts. Specifically, high empathy levels were found to be associated with a

higher likelihood of organ donation. It was also found that three factors –

cognitive, affective, and identification-- are associated with an empathic appeal

instead of the proposed five factors—identification, emotion, concern, realism,

and understanding context. The factor that is most predictive of the likelihood of

donation was the affective subgroup. These findings can help create a better

understanding of effective profile messages and are further discussed in the

following sections.

Patient Profile Messages

The content analysis generated interesting results due to the varying

degrees of information provided in each of the patient profile messages. Within

the patients' profiles listed on the website, there were an equal number of male

and female patients. National data for kidney need report that the need for

kidney transplants is greater for males than females by 10,000 (The Organ

Procurement and Transplantation Network [OPTN]). The patient sample showed

a higher participation rate from women on the website when compared to the

National data. While almost 40% of respondents did not include their age on their profile, for those who did include their age, the majority of patients fell between the ages of 30-49 years. The reports from the OPTN state that, out of 62,434 candidates on the wait-list for kidneys, 19,186 candidates fall between the ages of 35-49 years and 25,574 between the ages of 50-64 years (OPTN, 2005). While the frequency of patients with ages between 50-64 years had a lower participation rate on the website, the frequency participating in the age range of 35-49 years is relatively consistent with the National figures. The lack of website participation of the older 50-64 year cohort could be explained by the fact that their generation might not be as familiar or as comfortable with using the computer and the internet as access tools as are younger cohorts.

Also consistent with the national results were frequencies of blood types requested. Type "O" blood was the most requested blood type within the sample of patient profile messages, followed by a combination of "A" and "O" blood types. The national figures show that, of the 62,434 candidates, type "O" blood is needed by half of these candidates (32,811), followed by type "A" blood (17,495), type "B" (10,389), and type "AB" (1,739) (OPTN, 2005).

Another notable result within the patient profile messages were the reported patient locations. The three states with the highest reported need are California, New York, and Texas, while Colorado, New York, and Texas had the highest frequencies of patient participation on the website. The large population of California, New York, and Texas impact their higher need for organ

transplants. An explanation for Colorado having a high frequency of patient participation was aided by the information received through the patient telephone interviews.   Many patients reported that newspaper and media coverage increased their awareness to the Matching Donor website and mission. A Colorado resident received National attention, as well as a great amount of press in Denver, when finding his donor on the Matching Donor website. This particular patient received attention because he was initially turned away from Denver hospitals for what the hospital described as "ethical concerns". The transplant was conducted, however and concluded with a successful result. It is possible that this type of exposure to the website through press coverage, regardless of any controversial coverage or information regarding successful transplants, would have an affect on participation rates by location. Because the website is a relatively new avenue for patients to be in contact with an organ donor, coverage seems to be increased in locations where hospitals are performing the transplants even if the situation is a controversial one.

Overall, the sample was relatively consistent with the national data for those on waitlists for a kidney transplant. The patients registered on the website were slightly younger in age than the national data report. Information regarding race, socioeconomic status, and education was not recorded in this study. It would be interesting to look at the breakdown of these additional variables with the patients registered on the website.

With the context of an overall understanding of the type of patient listed on the website, it is imperative to also understand how the provided information affects those who are reading the messages as well as the role of empathy within the messages.

Dimensions of Empathy

The initial framework of empathy, consisting of five main elements – identification, emotion, concern, realism, and understanding the context – was not supported by the data. However, in support of the initial hypothesis, empathy did appear to be a multidimensional state of arousal including three subscales instead of the initially projected five. These three subscales include identification, a cognitive subscale, and an affective subscale. These findings are consistent with previous research (Kerem, Fishman, & Josselson, 2001; Campbell & Babrow, 2005) noting the influences of the cognitive and affective aspects associated with the arousal of empathy. In their research, Campbell and Babrow (2005) explained that the identification subscale could be linked primarily to either emotional or cognitive processing depending on the type of message. To further explain this within the context of the current study, depending on the message the respondents read, information regarding identification might be linked to either the emotional processing and heighten emotional appeal, or processed cognitively by enhancing the realism and understanding of the patient's situation. For instance, if a patient provided information regarding his or

her family, more specifically the children, a potential donor could read this information and identify with the patient if they were a parent themselves. Knowing both the impact an illness would have on family and the desire and responsibility to care for children, the information could enhance the emotional processing of the message. Identification would then be linked to the emotional appeal. In another message, it is possible that information regarding identification may be functional in processing the realness and understandability of the context within the message. An example of this type of information could be information regarding a patient's hobbies and experiences. If a patient were to write information regarding previous athletic interests and then described their current ability level in the message, a potential donor might first identify with the interest pertaining to athletics. By understanding the current ability level of the patient, the potential donor might then process this information cognitively by creating a greater understanding of the realness of need as well as by building a context to assess the patient's situation and background. These are merely examples as to how identification would be linked to either the affective or cognitive subscales. The processing of information would be different for each potential donor as they read the messages. Identifying with the information would be subjective, as would the way in which the information was processed for each individual due to their own life experiences. This possible link is an interesting connection and would require further investigation.

Empathy in Persuasion

Overall, the respondents who participated in the questionnaire portion of the study had an overwhelmingly positive attitude toward organ donation (82.7%) This is consistent with past research on organ donation (Gallup Organization, 1993). As previously mentioned, half of the respondents (49.8%) identified themselves as being an organ donor either on their driver's licenses or by signing an organ donor card. These attitudes are also consistent with previous research stating that registered organ donors report significantly more positive attitudes than those who are unregistered. In addition, those who are undecided also tend to have more favorable attitudes toward donation (Rodrique, 2004). Thus, the sample had consistent attitudes with previous organ donation research.

Differences among total ERS scores as well as each of the five subscales were analyzed between the high empathy and low empathy messages. It was determined that in fact those messages that were coded as low empathy messages were significantly lower for each of the tested components (identification, emotion, concern, realism, and understanding context) than the messages that were coded as highly empathic. This analysis confirmed that the coding performed by the investigator was similar to the ERS scores received from the respondents. This relationship created internal consistency for the coding scheme.

While a post hoc analysis of the messages showed significant differences between the messages on the ERS scores, instead of two separate subgroups of low and high Empathy messages, three subgroups emerged. Message six, initially coded as a low empathy message, was not significantly different from three of the high empathy messages. Message six did have a lower ERS mean score than the three high empathy messages, but the difference was not great enough to yield significance. Further analysis of Message six demonstrated that differences in personal information were found in comparison to the other three low empathy messages. These differences included mentions of ethnicity and age. These differences could have contributed to a higher ERS mean by incorporating information that led to identification than the other messages coded as low empathy messages.

Another surprising result was that, even though message seven was the longest in length and contained the most information regarding the patient, the message had the lowest ERS mean out of the four high empathy messages. This is interesting because it proposes that the length of a message and the amount of information provided are not the sole factors in evoking a high empathic response. It seems to indicate that the length and amount of information do not lead to a more empathic message. This information also segues into the analyses to follow; we have determined that there are definite differences between high and low empathy messages, the following analyses delve into the meaning of these differences.

Empathy level was found to have a significant impact on the likelihood of donating an organ. The results show that those respondents who felt more empathic towards a message were more likely to think about donating an organ than those who felt less empathic toward a message. Four different subgroups resulted, with the lowest mean of "thinking of donating an organ" being associated with the lowest reported feelings of empathy and the highest mean of "thinking of donating an organ" being associated with highest feelings of empathy. This suggests that respondents feeling more empathy towards a message and a patient in need are more likely to report a higher likelihood of donation. The connection between empathy and likelihood of donation can be taken into consideration in the development of patient profile messages. Perhaps further investigation of this connection can provide broader generalizability in the application of organ donation as well with the structuring of profile messages to better evoke an empathic arousal. Major differences between messages receiving low empathy scores and high empathy scores are that messages with high empathy include information that encompasses identification, emotional appeals, and cognitive appeals. These findings help in supporting the theoretical framework giving empathy a role in the persuasive effort. Examples of information provided by the patients' profile messages that help in the explanation of these appeals are described below.

As found in the factor analysis, Information enabling a potential donor to identify with a patient was determined to be an important component of empathy.

Examples of identification within the profiles include: "I am married and have two beautiful children", "I want to be there for my children as they grow up", I am currently employed by the US Department of Energy", "My son is away at college, and we may have the 'empty nest' at times"; "I love to ski"; "I was quite athletic and participated in running, biking, and golf"; "I am a very laid back person who enjoys life".

The inclusion of information that will likely create an emotional appeal and concern are also essential to evoking empathy. Examples of emotional arousal found in the profile messages include: "In earlier years, I did not want to have children because I was afraid that something would happen to me"; "I have been on dialysis for two years and my prospects of receiving a cadaver kidney are bleak"; "I am extremely fearful of dialysis"; "My company won't work through the issue of helping me to support my family"; "Family and friends are not compatible to donate, I need help".

The last component of high empathy messages is the cognitive appeal, which consists of allowing the potential donor to be able to understand the context of the message, as well as create a sense of verisimilitude of the message. Examples of a cognitive appeal include: "I have polycystic kidney disease"; "I am an excellent candidate for a transplant as I'm without any other health problems"; "I am on Hemodialysis as a result of my kidneys no longer functioning"; "I require dialysis treatments three times a week for four hours";

"I struggle to work full time"; "Instead of skiing, I now enjoy quieter things such as reading and watching movies"; "I was born with a rare birth defect".

In addition to higher empathy messages having a higher likelihood of organ donation, it was originally predicted that these messages would also receive more internet responses on the website. This prediction was based on the attempt to apply the theory of the persuasive role of empathy within a natural environment, in terms of potential donors being more likely to respond to a message with high empathy than to a message with a low empathic appeal.

These results were not significant. The findings are most likely not statistically significant due to the extremely low power obtained from the small sample size. Of the messages where the response rates where known, there were 13 low empathy messages, and six high empathy messages. One of the problems associated with this hypothesis is that the message response rates were self-reported by the patients. The patients have access to this number through the website, however, some patients would respond with the exact number of responses that they have received while others would give a broader range of received responses. An example of this variation includes "between 20 and 30" as an answer from one patient, while another responded with "23 responses". Response numbers then had to be grouped accordingly (1-10, 11-20, etc), this lack of accuracy could have also decreased the variability within the sample contributing to the lack of statistical significance.

Another analysis of the patient messages suggested that there was no strong relationship between the number of personal characteristics included in the patient profile message and the number of website responses received. There are implications associated with this result. The first is that the small sample size of respondents reporting the number of responses, as previously mentioned, had an effect on this result as well. Perhaps with a greater sample size, a correlation could be found between the two. Another explanation could be that it is not the amount of information provided, but instead the type of information provided. A coding construct with more exhaustive categories of patient characteristics might also be able to pinpoint similarities within the successful messages instead of the limited information that the current construct provided.

This is closely associated with the notion that identification would be the most predictive of the five constituents (identification, emotion, concern, realism, and understanding the context) in terms of the likelihood that one would donate an organ. It was initially thought that, by being able to identify with the message; one would feel more compelled to donate an organ to the targeted person. In this case, the results did not support the initial hypothesis; instead the affective subscale was the most predictive, containing emotion and concern.

Messages that scored high on both the emotion and concern components had similarities within their construction. These messages seemed to create a sense of need and vulnerability within the patient, facilitating feelings of concern.

Common phrases appearing in messages that scored high in emotion and concern include: "I struggle"; "I am fearful"; "I was afraid"; "I have so much I still want to do"; "all I can do is hope"; "it scares me"; and "it is difficult for me. Messages including beliefs and values are found to heighten the emotion appeal of the message. Examples of phrases incorporating beliefs and values within messages include: "I just want to feel better to spend more quality time with my wife and son"; "this has significantly changed my life in terms of parenting, work, and social activities"; "we often don't realize the freedom a kidney can bring"; "I would cherish another kidney to bring a 'normal' lease on life"; and "although my faith is strong". A message that does not contain information comparable to the examples provided, can give off an impression of being indifferent and stoic.

The possible proposed relationship with the way that identification is processed (either emotionally or cognitively) depending on the message is consistent with these results and could help explain why identification was not the best predictor.

It is also possible that identification is a stochastic process, in that it could be related to the initial step when a donor is considering donation. When the donor has discovered a patient to whom they feel similar, it could then be the emotional aspect of the message that actually leads to the desire or action of donation. Future research to support this explanation would also be more effective to be conducted with a sample that have previously donated an organ to

an "unknown" recipient, a similar situation to the potential donors registered on

the Matching Donor website.

Within the realm of mass communication and the internet, it is also a

possibility that identification information may act to enable potential donors in

develop a parasocial relationship with patients written about in the profile

messages. The parasocial concept explains the relational development within

mass communication and mass media (Horton & Wohl, 1965). Many parasocial

relationships are created with popular media performers from famous actors and

sports personalities to local talk show hosts and journalists. Viewers follow the

careers and lives of these performers as if they were actual friends. It is possible

that by reading the profile message, a potential donor identifies with the patients

and begins to develop a sense of involvement and friendship. This parasocial

relationship could also be an explanation for the outcry of organs that were

offered to aid in the plight of basketball great, Alonzo Mourning. This explanation

would also be interesting to follow up with future research.

The results did show that feeling concern and feeling emotions as a result

of a message are the best predictors of the likelihood of organ donation. This

information also helps build on previous analyses. The study has determined

that messages arousing a greater amount of empathy have a greater likelihood

of organ donation. In addition to this information, the previous finding suggests

that, within this context of empathy, it is most important to include information that focuses on creating an emotional appeal as well as concern for the patient in need.

Gender Differences

Previous research on empathy has determined gender differences in empathic responses. In order to build upon this research, it was predicted that females would have higher ERS scores than males. The analysis included looking at mean differences between male and female ERS scores for each of the eight messages used in the surveys. Females had significantly higher means for the messages combined, supporting the initial proposal. There was one message in which the male mean was higher; the message was a low empathy message that read "no kidneys need transplant to get off dialysis". An explanation for the difference in this message could be that males might empathize with a more direct message. It is known that males use more task-related communication and they may have identified with this messages that was to-the-point more than females might have. For all other messages, females had higher ERS score means.

If females were more likely to be empathically aroused, it was then thought that they might also be better able to arouse empathy in others. It was hypothesized that messages written by women would receive higher ERS scores than those messages written by men. While the result of the analysis was

significant, the results were in the opposing direction than had been predicted. Those messages written by men had both higher total ERS scores and individual empathy scores than those messages written by women. A closer look at the data revealed that there were 64 males and 54 females that viewed the messages written by male authors compared to 42 males and 38 females that viewed the messages written by female authors. A chi-square analysis (X^2 (2) = 4.58; p= 1.01) showed that the gender difference in the viewers was not significant enough to claim this as a full explanation. Therefore, because females had higher ERS means, it could not be said that male messages received higher ERS scores due to a higher rate of female viewers.

It is possible that, in fact, this is not a gender issue, but one of communication competence in that the amount of empathy aroused is not dependent on the gender of the author, but rather the type of information included and how the information is presented.

This would support the work by Canary and Hause (1993) stating that, contrary to the gender differences as "different cultures" thesis, gender differences in communication, particularly supportive communication, are relatively small in magnitude. Gender differences that do seem to exist within the context of supportive communication are better interpreted as one's skill rather than a communication style (MacGeorge, Clark & Gillihan, 2002). MacGeorge, Graves, Feng, Gillihan, and Burleson (2004) also state:

If the different cultures myth is covered in textbooks and related
publications, it should be treated as a once-interesting but largely
misleading (and now disproved) model of gender differences in
communication. (p. 173)

In order to support the idea that indeed, this difference is not a gender

issue, but rather one of content, a post-hoc study with the messages included in

the survey of the current study could be performed. The analysis would look for

differences by creating a new message using the exact same content only

changing the gender of the author. This would be able to lead to the conclusion

that it is not a gender-related phenomenon but rather the type of information

included that varies the amount of empathy received.

Telephone Interviews

Overall, a great deal of understanding was gained through the telephone

interviews with patients. In general, there were many mixed feelings regarding

their experiences with the Matching Donor website. Those patients who had not

received a great number of responses to their messages had felt that they had

wasted their money by posting a message. On the other hand, those who had

not only received numerous responses, but also have found a donor describe

their experience as something that was worth every penny spent.

One common concern with the website was in terms of the monitoring of

the potential donors. Many patients reported receiving responses from potential

donors from various countries outside of the United States. Many of these

foreign responses requested financial compensation in return for their kidney, while it is stated under the Federal Law in the United States that it is unlawful to buy or sell organs (42 U.S. Code, sec. 274e(a). When these types of messages are received, it is very disheartening to the patients. One individual discussed that, due to the high cost of posting a message on the site, strict monitoring on the website should be enacted to ensure that valid responses are being received.

Another concern from the patients was finding a hospital and physician that were willing to perform the transplant surgery. Many patients found difficulty in this process when it was known by the hospital that they were registered on the website. Many facilities will not test donors that were met online and consider them invalid for donation purposes. Concerns regarding an online donor include the exploitation of vulnerable people, undermining the public's trust, as well as the buying and selling of organs (Davis, 2004). It is also worried that allowing those with the financial means to circumvent the current system will contribute to the disparity within the healthcare system (Davis, 2004).

Besides the concerns that the patients had for the website and the internet process in general, many individuals had positive experiences and offered insight into the donation process. The experience of receiving responses led some patients to think that potential donors most commonly email and keep themselves anonymous in order to get to know the patient before committing to a decision of donating or not donating.

Quite a few patients who were interviewed had either found a donor for a transplant, or were in the process of final testing procedures with a donor. When asked about the reason they felt the donor chose them, many of the responses could be categorized under the identification subscale. These responses included: "He learned that I was married, and children and grandchildren and was also a veteran"; "I am hard of hearing, and so is the potential donor who responded to me"; "When reading that I was newly engaged, she mentioned that she remembered how much that had meant to her"; "She thought I was someone full of life and could still make a difference".

The patients also offered a better understanding for the reasons of changing or altering a message once it had been posted. Patients who were initially unsatisfied with the results that their message had rendered added additional personal information and photographs to their messages. Other patients mentioned altering their message for the purpose of being placed back at the top of the profile list. Each alteration, even the addition of a space or period, moves the profile to the top of the page where it is made more visible to the potential donors. This enables their profile message to appear on the opening page under the kidney category instead of having to search through numerous pages to be found.

This additional information leads to a greater understanding of the process of posting messages, as well as insight into how potential donors are responding to those messages.

Summary of Interpretation

In summary, it was found that empathy does play a role within the context of organ donation. Higher amounts of empathy were linked to a higher likelihood of donation. The affective aspect of empathy including emotion and concern were also most predictive in the likelihood to donate.

Further research

This study illustrates implications for health communication theory as well as application to message construction. In addition to the suggestions made above, this study helps researchers generate ideas for potential future work.

The ambiguous and complex state of identification within the study leads to further questions. It would be interesting to study the idea that, depending on the message, identification will link to either the affective or cognitive subscale. This could be manipulated experimentally or studied correlatively. It would be important to further explore the role of identification as well as the reactions to different stimuli.

To expand upon the variables of the current study, questions arose regarding whether the length of a message, the coherency of a message, and severity of a message have an impact of the amount of empathy as well as on the likelihood of donating an organ.

In order to further explore the role that empathy has in living organ donation, it would be interesting to focus on the retrospective sense-making of

individuals who have participated in living organ donation. This research would attempt to get at the reasons living donors feel they have donated their organs. It is possible that this type of study would also yield more insight into the proposition that identification is either processed affectively or cognitively depending on the message, or in this case situation. This research could also be focused on either those who have donated an organ to a friend or family member, or could focus on the reasons an individual would donate to a person that is a stranger to them. Both donation cases would contribute important information to the context of organ donation.

To expand upon the current study looking at patient profile messages, another important aspect would be to analyze the potential donors. Focusing research within the context of the internet would also be important to study. As mentioned, potential donors have many motives for donating an organ; learning their habits regarding internet usage would be of importance for the website. By understanding internet searching and surfing habits, one might also be better able to construct a message to engage the potential donor and attract their initial attention to a particular message.

Different approaches should also be taken for future research attempting to further explore the role of empathy in organ donation. The current study only evaluates the role of empathy within patient profile messages; it would be interesting to see what results are found in studies that expand this to other organ donation efforts. Effects of empathy could be studied within the current

attempts to increase the rates of cadaveric organ donation as well as overall living organ donation.

Many of the suggestions for future research are created by the limitations found within the current study.

Limitations

There are several limitations to this study. The first limitations are in regard to the content analysis message sample. Patients with posted messages on the website have the freedom to alter and change the content of their message at any time. Some messages are posted and unchanged, whereas others may be altered at any point. Although an attempt to control for this variance was made by asking the number of times the message had been changed, it still poses a limitation to the study as to the type of information that was changed and how it affected the responses to the message.

The content analysis coding construct was originally developed by Campbell and Babrow (2004). A limitation, although not great concern, was found with the coding operationalization, in that an actual reliability score was not reported within their article; rather, they merely mentioned that validity was obtained through significant t-tests. The content validity is not exact, and the results of the current study cannot be directly compared with the results of the previously conducted study.

Campbell and Babrow's (2004) coding scheme for analyzing the empathic arousal of a message was originally designed for media clips and commercials. The patient profile messages were text only, with the exception of the option to include photographs; this difference in media created a smaller amount of information (fewer informative cues) available on the patient profile messages. This led to some overlap of the coding and categorizing of the information included within the messages.

Another limitation regarding the coding of the messages is that the coding system may not have been exhaustive. It is possible that there are more relevant and important characteristics and information that are included in some of the profiles that were not coded within the present system.

The number of patient profile messages available at the time of data collection also led to a small sample size. While each of the 64 patient profile messages requesting kidneys were printed on March 13, 2005, it is still a relatively small number. In future research it would be beneficial to collect the profiles over a longer time frame rather than collecting all messages on one day to yield a larger sample size. The present study selected messages from one day only in order to minimize confounding factors, but this also lead to the aforementioned limitation.

Limitations also surround the questionnaire and respondents to it. By performing a snowball sample technique to gather respondents, a lower level of external validity was achieved. Without having a completely random sample, not

only are strong generalizations not able to be made, but generalizations are not able to be made across contexts as the population was only viewing website messages. The snow-ball sample also produced a predominately Caucasian population; therefore the ability to generalize to other ethnic backgrounds is decreased.

The questionnaire portion of the study was self-report in nature, having looked at no real behavior. The variable which is most likely to be affected by this approach would probably be "The likelihood of donation". The actual survey question is phrased: "This message would make me think about possibly donating a kidney to someone". The likelihood to donate could be influenced by social desirability, rendering the self report of the behavior to be inaccurate. In future research, a social desirability scale may be included. This self-report does seem to be a useful approach, as other methods including personal interviews could possibly be more influenced by social desirability. Observation would also be useful with a large sample of individuals who were seriously considering donating an organ, especially those who would be unwilling to donate their organs while they were still living.

Natural viewing of the patient profile messages is another topic limiting this study. In a natural environment, only those who are interested in potentially donating an organ would be viewing these patient profile messages. The potential donors would have stronger positive attitudes and beliefs towards the issue of organ donation than did the sample of the current study. Although the

results were generated with a higher level of exposure in mind, the outcome could be different if using a sample of only potential donors.

Limitations are also found in the patient telephone interviews. The sample size for the interviews was much smaller than had been expected. Originally it was thought that an email message could be sent to all patients with messages included within the study explaining the purpose of the study as well as the reason they will be contacted. Because of the personal and serious nature of the messages, it was felt that the more insight patients had into the study, the more willing they might be to participate. Due to website restrictions, emails could not be sent to patients if the sender was not registered as a potential donor. It was judged unethical for the researcher to pose as a potential donor in order to email the patients. Instead, patients who had included either their email addresses or phone numbers were contacted. Due to this, only 21 patients were able to be contacted, creating an extremely small sample size. Variables that were affected by this sample size included: the number of responses to the message, as well as message alterations. In the future, it would be beneficial to create an alliance or receive cooperation with the webmaster or site manager for assistance receiving feedback.

The integration of empathy has important implications for the field of health communication. It provides insight into the creation and understanding of patient profile messages associated with living organ donation. The findings should begin to provide guidance to those constructing profile messages, as well

as facilitate further research for those designing various organ donation messages in general. The soundness of this approach, however, should be further discussed theoretically and tested empirically.

Further studies should continue to explore the relationship between empathy and persuasion. With continued validation of this theoretical approach, there is great possibility to provide valuable contributions to our understanding of persuasion and persuasive communication.

Appendix A

Message Elements Likely to Evoke Identification	Rating Scale (1 not at all – 5 a great deal)

Message Elements Likely to
Evoke Identification

Rating Scale
(1 not at all – 5 a great deal)

1. Describes individuals who appear to look or behave like peers.

1   2   3   4   5

2. Describes individuals expressing humor, values, or experiences that reflect what the target members feel are their own

1   2   3   4   5

3. Describes individuals expressing humor, values or experiences that reflect what they desire or admire in others.

1   2   3   4   5

4. Events described are intrinsic to, previously experienced by, or important to target audience.

1   2   3   4   5

5. Makes fun of or denounces events, people, values, attitudes, or experiences that the target audience finds undesirable to the audience (in other words, message criticizes or makes fun of things that the target audience would be inclined to do, as well.)

1   2   3   4   5

6. The production of the message is appealing to target audience.

1   2   3   4   5

Elements Likely to Shape Evaluations Related to Verisimilitude (Reality)	Rating Scale (1 Strongly Disagree – 5 Strongly Agree)

(The first three indicate realism)

1. The situation described does not appear to be overly exaggerated.

    1   2   3   4   5

2. People described in the message do not appear to be over-reacting or uncharacteristically unresponsive to a situation described.

    1   2   3   4   5

3. Scenes or words reflect a mundane reality--closer to day-to-day experiences or interests.

    1   2   3   4   5

(The following indicates a lack of realism)

4. Extremity of views expressed and/or behavior shown by someone differ significantly from the message receiver's view

    1   2   3   4   5

Elements of a Message Likely to Invoke Concern	Rating Scale (1 not at all – 5 a great deal)
1. Individuals described or shown appear to be in danger.	1 2 3 4 5
2. Individuals described or shown appear distressed about something the message receiver would also feel distressed about	1 2 3 4 5
3. Individuals shown or described appear helpless or in need of help.	1 2 3 4 5
4. The message attempts to make members of the target audience feel concern for themselves or for others like them.	1 2 3 4 5
5. Individuals presented or described appear to be undeserving of the pain or suffering that is implied or shown.	1 2 3 4 5
6. Individuals in a message appear to be distraught--the source of the emotion does not have to be known.	1 2 3 4 5
7. Message describes others who depend on the patient in need.	1 2 3 4 5

Elements Likely to Shape Evaluations of Understanding in the Context of the Message	Rating Scale (1 not at all – 5 a great deal)

<u>Elements Likely to Shape Evaluations of Understanding in the Context of the Message</u>

1. People shown or described in a message demonstrate an event or series of events in a logical manner.   1   2   3   4   5

2. Patient describes events that lead to current condition   1   2   3   4   5

<u>Elements Likely to Create Negatively Toned Emotional Arousal (sadness, shame, fear, guilt, and anxiety)</u>

1. People shown or described appear to be suffering emotional or physical pain.   1   2   3   4   5

2. Photos or other visuals elicit sympathy   1   2   3   4   5

3. Message conveys high threat.   1   2   3   4   5

4. Message expresses credible information about disease/condition and susceptibility that differs from what the target audience member may have personally believed.   1   2   3   4   5

5. Message describes or shows a scary situation or shows any other clearly expressed negative emotion   1   2   3   4   5

Written Message Technique	Rating Scale
	1-excellent 2-good 3-fair 4-poor
1. Grammar Usage	1 2 3 4
2. Spelling Usage	1 2 3 4
3. Coherence of message (how well is message worded and able to be understood)	1 2 3 4
4. Message Title	Regarding Need Other
5. Author of Message	self spouse parent relative friend

Patient Demographics	
1. Age of Patient	>19 20-29 30-39 40-49 50-59 <60
2. Location of Patient	(Specify State)
3. Mention of Religion/ God	Yes No
4. Mention of Ethnicity	Yes No
5. Mention of Education	Yes No
6. Gender of Patient	Male Female
7. Mention of Family	No - Spouse- Child- Sibling- Parent Other
8. Mentioning of Hobbies	Yes No
9. Patient Contact Information	Phone Fax Email Address
10. Mention of Pets	Yes No
11. Mention of Occupation	Yes No

Severity of Message	Rating Scale 1-4 (weak to strong)				
1. Degree of Plea		1	2	3	4
2. Degree of depth of problem description		1	2	3	4
3. Length of time Ill	No	>1yr	1-5yr	5-10 yr	<10yr
4. Severity of Need		1	2	3	4
5. Length of time to live	No	>1yr	1-5yr	5-10 yr	<10yr
6. Previous Transplant mentioned		Yes		No	
7. Type of Patient		In		Out	

Response Limitations Stated within the Message

1. Number of Health Requirements of Donor	(#)
2. Age Requirement of Donor	(#)
3. Blood Requirement of Donor	Blood type
4. Patient ability to travel	Yes No
5. Number of Limitations posed by Patient	(#)
6. Number of Nice to Have"	(#)

Appendix B

Within the series of emails, you will find enclosed attachments of eight different versions of a message regarding living kidney donation. Living donation occurs when the donor gives up one of his or her organs to another person. People only need one kidney, and this kind of living organ donation is becoming more common. The present study focuses upon appeals from patients needing kidneys to potential donors. There are now web sites that match donors and patients, much like a dating web site. Very little research has yet been conducted on donor appeals – the study for which you may earn extra credit in CMM 202 is the third study in a series of early attempts to examine this phenomena.

If you would like to participate in this extra credit opportunity, print out all eight copies of the messages attached in both emails as well as the attached survey. Each of your respondents will receive one message type along with copy of the survey questions. Alternate the order of the messages– give the first one to the first person you sample, the second to the second, the third to the third, the fourth to the fourth, and so on until the eighth person/message- and then start over. Please also alternate gender of the people whom you sample. If the first person is a male, the second should be a female, the third should be a male, etc. (and vice versa). If your last name begins with A-L please begin with a male; if your last name begins M-Z please begin with a female.

You may only sample people over the age of 21 who are NOT University of Dayton students. Please remind them that their responses are completely anonymous. Do not clarify unclear items for them – just ask them to use their best judgment in interpreting the questions. You may sample up to 50 people for 1 point each of extra credit. Make as many copies as you need to of the questionnaires.

Please call graduate student Molly Federowicz on her cell phone
if you have any questions:
814.360.1127

Thanks for your help! Teri

Message # 1

<u>Organ Donation Survey</u>

In light of the drastic shortage of cadaveric organ donations, many people attempt to obtain kidney donations from live donors. Giving a kidney is now a much simpler process than it used to be. Although we are born with two kidneys, we only need one. Most people in need of a kidney donation first try family and friends, but matches are not always available. Recently, web sites have been developed to help facilitate the matching of potential donors and patients in need of kidneys. This study examines how people respond to such donation appeals. It is being conducted by Molly Federowicz, a graduate student at the University of Dayton (Federoma@udayton.edu). All responses are completely anonymous. Thank you for your help with this important research topic.

Please read the following description of an appeal taken from a donor matching site.

Kidney Donation B Type Blood

I am a 52-year-old male living in Westminster, Colorado. I have End State Renal Disease (ESRD) specifically IgA Nephropathy. As a result my kidneys no longer function and I am on Hemodialysis. I require dialysis treatments three times a week for a minimum of 4 hours a treatment. I am in need of a kidney transplant. I am "B+" blood type, one of the rare blood types. I have exhausted all possibilities of a donor from family or close friends due to blood type. A prospective donor would have to be blood type "B". I am also 6'2" tall and weigh 215 pounds. As a result I will need a donor of comparable size and weight to match. If you are willing to donate to me you can either contact me directly through this web site, or at my email (dreithgary@aol.com), or call my transplant clinic at 303-778-5797 (888-872-8891, toll free).

I am married and am struggling to continue to work full time. I am currently employed by the US Department of Energy as an Occupational Safety and Health Manager. I am a Certified Safety Professional (CSP) and belong to both the American Industrial Hygiene Association (AIHA) and the American Society of Safety Engineers (ASSE).

Prior to my kidneys failing I was quite athletic participating in running, swimming, biking, and golf. I have run a number of marathons including the New York City Marathon, taken numerous long distance bicycle rides, and even competed in a few triathlons. Due to the time that dialysis requires and my current energy levels

due to my kidney disease all that I am currently able to continue with is golf. I am still able to work in a round or two on weekends.

I have been on dialysis since October 2003. The effects of dialysis are starting to catch up with me as I am beginning to see the start of other health isses. As a result I am very interested in getting a kidney transplant as soon as possible. I hope that there is someone out there, with "B" type blood, that would be willing to help me out by donating me a kidney.

Message # 2

Organ Donation Survey

In light of the drastic shortage of cadaveric organ donations, many people attempt to obtain kidney donations from live donors. Giving a kidney is now a much simpler process than it used to be. Although we are born with two kidneys, we only need one. Most people in need of a kidney donation first try family and friends, but matches are not always available. Recently, web sites have been developed to help facilitate the matching of potential donors and patients in need of kidneys. This study examines how people respond to such donation appeals. It is being conducted by Molly Federowicz, a graduate student at the University of Dayton (Federoma@udayton.edu). All responses are completely anonymous. Thank you for your help with this important research topic.

Please read the following description of an appeal taken from a donor matching site.

Need Kidney

needs kidney 12% of working one other one working 0%.

Message # 3

<u>Organ Donation Survey</u>

In light of the drastic shortage of cadaveric organ donations, many people attempt to obtain kidney donations from live donors. Giving a kidney is now a much simpler process than it used to be. Although we are born with two kidneys, we only need one. Most people in need of a kidney donation first try family and friends, but matches are not always available. Recently, web sites have been developed to help facilitate the matching of potential donors and patients in need of kidneys. This study examines how people respond to such donation appeals. It is being conducted by Molly Federowicz, a graduate student at the University of Dayton (<u>Federoma@udayton.edu</u>). All responses are completely anonymous. Thank you for your help with this important research topic.

Please read the following description of an appeal taken from a donor matching site.

Kidney Transplant

My name is Bill Lundborg I am 46 years old 6'6 and 270 lbs . I am married and have two beautiful children, My son Connoris two years old and my daughter is three months old. I found out I had PKD about two years ago and had gotten it from my fathers side of the family (he died at age 43 in 1973). We now believe it was from complications of PKD that ended his life early but back then he was not tested for this. The doctors have given me about three to four months before I will need Diaysis, I am extremely fearful of dialysis because I work for a small company and I dont think they will work through this issue with me giving me the opportunity to support my family. My wife and my half-sister (my only living relative) were going to donate one of their kidneys but they are A blood type and is not a match for me . In my earlier years I did not want to have children because I was afraid that something would happen to me and I did not want them to grow up in the same situation that I did. When I met my wife these fears went away and we decided to start a family. My children and my wife are my life, and now , all I want is to be there for my children as they grow up and not put them in the same situation I was in or not be able to have the quality of life they deserve. For all the people that come to this program looking to help someone like me, and giving the gift of a quality life to those in need, God Bless You!

<u>Message # 4</u>

<u>Organ Donation Survey</u>

In light of the drastic shortage of cadaveric organ donations, many people attempt to obtain kidney donations from live donors. Giving a kidney is now a much simpler process than it used to be. Although we are born with two kidneys, we only need one. Most people in need of a kidney donation first try family and friends, but matches are not always available. Recently, web sites have been developed to help facilitate the matching of potential donors and patients in need of kidneys. This study examines how people respond to such donation appeals. It is being conducted by Molly Federowicz, a graduate student at the University of Dayton (<u>Federoma@udayton.edu</u>). All responses are completely anonymous. Thank you for your help with this important research topic.

Please read the following description of an appeal taken from a donor matching site.

kidney needed

no kidneys need transplant to get off dialysis.

Message # 5

Organ Donation Survey

In light of the drastic shortage of cadaveric organ donations, many people attempt to obtain kidney donations from live donors. Giving a kidney is now a much simpler process than it used to be. Although we are born with two kidneys, we only need one. Most people in need of a kidney donation first try family and friends, but matches are not always available. Recently, web sites have been developed to help facilitate the matching of potential donors and patients in need of kidneys. This study examines how people respond to such donation appeals. It is being conducted by Molly Federowicz, a graduate student at the University of Dayton (Federoma@udayton.edu). All responses are completely anonymous. Thank you for your help with this important research topic.

Please read the following description of an appeal taken from a donor matching site.

Need a kidney- will you help?

Hi, my name is Lori and I am a 49 year old wife and mother of a 22 year old son. I have polycystic kidney disease. I have been on dialysis for two years and my prospects of receiving a cadaver kidney are bleak .

In January of 2003, my kidneys failed and my loving husband donated his kidney to me. Unfortunately, the transplant failed due to a rare complication. My husband was fine then and to this day. Due to the many transfusions I received at that time I became sensitized. Sensitization happens when you develop many antibodies to other peoples blood. This makes getting a match on the cadaver list almost impossible. I have been told that the average wait for a sensitized person is 12 years.

Fortunately, my doctors at Johns Hopkins in Maryland have developed a protocol to help people like me. The donor, however, needs to be a living donor. I am an excellent candidate for a transplant as I'm without any other health problems. My blood type is AB which is compatible to all four blood types.

My sister has been tested for me. It was determined that she was not good enough of a tissue match for me, but she continued with the testing to possibly enter us into the paired exchange program at Hopkins. This allows people to swap with other couples if their donor is not compatible. Unfortunately, she

discovered that her kidney function was not adequate emough for her to donate to anyone. Other family members cannot be donors as they too have PKD.

I have a very close-knit family which is very supportive. I love spending time with them. We loved to ski together which was a favorite pastime I hope to be able to enjoy again! These days I spend time doing quieter things such as reading, watching movies, and playing with my 2 year old chocolate lab, Luke.

My son is away at college, but we keep close contact by calling nearly everyday. My husband and I are very proud of the man he has become. We may have the "empty nest", but we fill our time with family and a wonderful circle of friends. I try to enjoy each and every day of my life and feel very blessed. But I have so much that I still want to do!

If you are reading this, it may mean that you are considering donation. I would love to embrace and have in my life the person that would consider doing this - especially for someone they do not know! It takes a special person to give this life-saving gift and I am amazed at their strength and courage. I would be forever grateful and promise to carefully protect your gift. We can even meet in person so that we can know more about each other. Please research the risks, and talk to your doctor and family so that you can make an informed decision.

My health insurance will pay for donor expenses. Early testing can be done near to you. For legal and ethical reasons, I am seeking a US resident as a donor.

I have heard that when God wants to do something wonderful, He starts with something difficult. And when He wants to do something exquisite, He starts with something impossible. I have faith that someday I will be healthy. God bless you for listening.

Message # 6

<u>Organ Donation Survey</u>

In light of the drastic shortage of cadaveric organ donations, many people attempt to obtain kidney donations from live donors. Giving a kidney is now a much simpler process than it used to be. Although we are born with two kidneys, we only need one. Most people in need of a kidney donation first try family and friends, but matches are not always available. Recently, web sites have been developed to help facilitate the matching of potential donors and patients in need of kidneys. This study examines how people respond to such donation appeals. It is being conducted by Molly Federowicz, a graduate student at the University of Dayton <u>(Federoma@udayton.edu)</u>. All responses are completely anonymous. Thank you for your help with this important research topic.

Please read the following description of an appeal taken from a donor matching site.

Kidney Needed from B+ Donor

Diagnosed with kidney disease. On dialysis for 18 months. Need kidney. I'm an african american in my 50's. I need a B+ donor. I can't be matched with any other blood type. I hope to here from B+ donors soon. This will be my first transplant. I've been on the transplant list for over two years with no results.

Message # 7

<u>Organ Donation Survey</u>

In light of the drastic shortage of cadaveric organ donations, many people attempt to obtain kidney donations from live donors. Giving a kidney is now a much simpler process than it used to be. Although we are born with two kidneys, we only need one. Most people in need of a kidney donation first try family and friends, but matches are not always available. Recently, web sites have been developed to help facilitate the matching of potential donors and patients in need of kidneys. This study examines how people respond to such donation appeals. It is being conducted by Molly Federowicz, a graduate student at the University of Dayton (<u>Federoma@udayton.edu</u>). All responses are completely anonymous. Thank you for your help with this important research topic.

Please read the following description of an appeal taken from a donor matching site.

Hi. Young mom needs type O + or - donor! Thanks

Hi, my name is Karen and I am a 37 year old mom and wife. I have had chronic kidney disease my entire life and am now eligible for a kidney transplant. I have been on the transplant list for over a year with no prospects in the near future.

I was born with a rare birth defect. I was born with a duplicated kidney system and no bladder. Only 1/3 of my left kidney worked at my birth and my right kidney(s) were removed 18 years ago since they had never functioned and only caused infections. Now only 9% of the upper pole of my left kidney is functioning and I am in full End Stage Renal Failure. I have had a urostomy since I was four years old and have had many surgeries on my kidneys, abdomen etc. I am otherwise healthy and look forward to knowing what it is like to have one fully functioning kidney! I am told I will feel great! I can't wait!

My family and friends have all been tested with no success. I am told that I am an excellent candidate since I do not have any underlying problems such as diabetes or cancer that could later destroy a new kidney. I was simply born with poorly functioning kidneys that worsened over the years.

I was married at age 23, to my college sweetheart, and I was widowed at age 33. My husband Mark, (also 33) and I were very much in love and I have wonderful memories of him. He passed away after a six year battle with Leukemia. I thought I would never be able to overcome my grief.

Two 1/2 years ago, I married a wonderful man, Joe, who has given me a new lease on life. He has helped me through my grief and my love for him is immeasurable. Joe and I desperately wanted to have a family and we adopted two small boys, Joey, who is 25 months old and full of life and energy, and Jesse who is 11 months old and so very sweet!

I love to take care of the boys, read, meet new people, and spend quiet evenings at home. I am a very laid back person who loves life and would like to enjoy more of it!!!

My boys and my new husband are my blessing! My life is now wonderful and happy and I know I am asking for an incredible gift from someone I have yet to know.

I have some time, so the decision to donate your kidney to me does not have to be made tonight. Please, take time to contact me, to think it over, to talk to your family, friends, and doctor, and even to meet me if you wish. Your decision to donate a kidney is an act of selfless love and courage and I commend you! I wan you to be fully educaed on the risks and rewards of organ donation and I want you to feel good about your decision to donate.

My health insurance would cover all of your medical testing and procedures, and my transplant coordinator would arrange for most of the early testing to take place near your home.

I live in Colorado, however, the University of Colorado Hospital has refused to test any potential donors I have met online. For this reason, I am transferring my medical care to Northwestern Memorial Hospital in Chicago. I just returned from my evaluation and will be able to refer potential donors there after March 1.

Since I have made the choice to be honest with hospitals about how I have met my potential donors, I have run into many closed doors. For this reason I will not stop fighting for each and every person in need of a transplant.

For legal and ethical concerns, I am seeking a US resident as a donor.

Please feel free to contact me if you have further questions. You can send a message directly through this website by filling out the private response card below.

I sure look forward to getting to know you as we embark on this journey together.

Thanks for considering me!

Message # 8

<u>Organ Donation Survey</u>

In light of the drastic shortage of cadaveric organ donations, many people attempt to obtain kidney donations from live donors. Giving a kidney is now a much simpler process than it used to be. Although we are born with two kidneys, we only need one. Most people in need of a kidney donation first try family and friends, but matches are not always available. Recently, web sites have been developed to help facilitate the matching of potential donors and patients in need of kidneys. This study examines how people respond to such donation appeals. It is being conducted by Molly Federowicz, a graduate student at the University of Dayton (Federoma@udayton.edu). All responses are completely anonymous. Thank you for your help with this important research topic.

Please read the following description of an appeal taken from a donor matching site.

---

kidney needed

I have dialysis 3 times a week...My veins are thin/ruptured. Do to this I have limited options remaining that can be used for access.

Appendix C

Please mark the message number of the appeal you have just read

____Message 1   ____Message 2   ____Message3   ____Message 4

____Message 5   ____Message 6   ____Message 7   ____Message 8

Now in response to the appeal that you have just read regarding the request for an organ donor and please respond to the following questions. After each statement, circle the number that best reflects your opinion about the message you have just read.

1.   My values and beliefs are similar to those expressed in the message.

Strongly Disagree	Somewhat Disagree	Disagree	Unsure	Somewhat Agree	Agree	Strongly Agree
1	2	3	4	5	6	7

2.   I feel no concern for the person described in the message.

Strongly Disagree	Somewhat Disagree	Disagree	Unsure	Somewhat Agree	Agree	Strongly Agree
1	2	3	4	5	6	7

3.   I was moved by the message.

Strongly Disagree	Somewhat Disagree	Disagree	Unsure	Somewhat Agree	Agree	Strongly Agree
1	2	3	4	5	6	7

4.   I can really identify with the feelings displayed in the message.

Strongly Disagree	Somewhat Disagree	Disagree	Unsure	Somewhat Agree	Agree	Strongly Agree
1	2	3	4	5	6	7

5.   I felt upset for those who suffer from the problem described in the message.

Strongly Disagree	Somewhat Disagree	Disagree	Unsure	Somewhat Agree	Agree	Strongly Agree
1	2	3	4	5	6	7

6.   I wish I could do something to help people like those described in the Strongly

Strongly Disagree	Somewhat Disagree	Disagree	Unsure	Somewhat Agree	Agree	Strongly Agree
1	2	3	4	5	6	7

7. I couldn't care less about people like those shown in the message.

Strongly Disagree	Somewhat Disagree	Disagree	Unsure	Somewhat Agree	Agree	Strongly Agree
1	2	3	4	5	6	7

8. I can really see how someone could have a bad experience like the one talked about in the message.

Strongly Disagree	Somewhat Disagree	Disagree	Unsure	Somewhat Agree	Agree	Strongly Agree
1	2	3	4	5	6	7

9. The message discusses something that could really happen

Strongly Disagree	Somewhat Disagree	Disagree	Unsure	Somewhat Agree	Agree	Strongly Agree
1	2	3	4	5	6	7

10. I was touched by the situation of the person depicted in the message.

Strongly Disagree	Somewhat Disagree	Disagree	Unsure	Somewhat Agree	Agree	Strongly Agree
1	2	3	4	5	6	7

11. The message seems to be an over-reaction to a problem.

Strongly Disagree	Somewhat Disagree	Disagree	Unsure	Somewhat Agree	Agree	Strongly Agree
1	2	3	4	5	6	7

12. The message shows or describes someone who seems a lot like me or some of my friends, in many ways.

Strongly Disagree	Somewhat Disagree	Disagree	Unsure	Somewhat Agree	Agree	Strongly Agree
1	2	3	4	5	6	7

13. The message just doesn't make sense to me.

Strongly Disagree	Somewhat Disagree	Disagree	Unsure	Somewhat Agree	Agree	Strongly Agree
1	2	3	4	5	6	7

14.   The message describes a situation that could really happen.

Strongly Disagree	Somewhat Disagree	Disagree	Unsure	Somewhat Agree	Agree	Strongly Agree
1	2	3	4	5	6	7

15.   I did not feel emotionally involved while watching the message.

Strongly Disagree	Somewhat Disagree	Disagree	Unsure	Somewhat Agree	Agree	Strongly Agree
1	2	3	4	5	6	7

16.   When I was watching the message, I felt sad for the people affected by the problem.

Strongly Disagree	Somewhat Disagree	Disagree	Unsure	Somewhat Agree	Agree	Strongly Agree
1	2	3	4	5	6	7

17.   To what extent did you feel empathy for the person described above?

I felt no empathy for the person	I felt a little empathy	I felt a moderate amount of empathy	I felt a great deal of empathy for the person in the organ request message
1	2	3	4

---

18. This person seems worthy of receiving an organ transplant.

Strongly Disagree	Somewhat Disagree	Disagree	Unsure	Somewhat Agree	Agree	Strongly Agree
1	2	3	4	5	6	7

19. This message would make me think about possibly donating a kidney to someone

Strongly Disagree	Somewhat Disagree	Disagree	Unsure	Somewhat Agree	Agree	Strongly Agree
1	2	3	4	5	6	7

20. I hope that this person receives a donation from someone

Strongly Disagree	Somewhat Disagree	Disagree	Unsure	Somewhat Agree	Agree	Strongly Agree
1	2	3	4	5	6	7

21. I don't believe in organ donation

Strongly Disagree	Somewhat Disagree	Disagree	Unsure	Somewhat Agree	Agree	Strongly Agree
1	2	3	4	5	6	7

Now please respond to a few questions about yourself:

22. Gender   1. M   2. F

23. Your age:
   1. Under 21   2. 21-30   3. 31-40   4. 41-50   5. 51-60   6. 61-70   7. 71 or higher

24. The highest level of education you have completed:

   1. Grade school   2. High school   3. Some college   4. Bachelor's degree   5. Graduate work

25. What Racial group do you identify?

   1. Caucasian   2. African-American   3. Hispanic   4. Native-American   5. Asian-American

   6. Other—please describe_____

26. Have you identified yourself as an organ donor on your driver's license or signed an organ donation card?
   1. Yes   2. No, not that I am aware of

27. Have you ever had a friend or family member who has received a donated organ from a live donor?

   1. Yes   2. No, not that I am aware of

28. Have you ever had a friend or family member who has received a donated organ from a cadaveric (non-living) donor?

   1. Yes   2. No, not that I am aware of

Appendix D

Telephone Interview Questions

1. What was the length of time you had your message posted on the website?

2. Have you made any changes or alterations to the message once you originally had it posted on matching donors?

   a. If yes, what were the changes?

3. Do you know the number of responses that you have received from the potential donors?

   a. Of that number, how many did you think were appropriate offers?

4. Of those responses, what is the most common way that potential donors have contacted you; was it through the website email, or by phone or another email address?

5. Comments/insights with your experience with the website.

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> University of Dayton
> **M.A. Candidate in Communication**   **08/2005**
> Emphasis: Health Communication
> Thesis Topic: "The role of empathy in persuasion; a focus of online
> > descriptions of organ donation needs"
> > (Directed by Teresa Thompson)

> Pennsylvania State University, University Park
> **B.S. in Biobehavioral Health**   **05/2003**
> Relevant Coursework: Epidemiology, Aspects of Stress, Holistic
> Medicine, Health Promotion, Health Communication

Publications:
> Thompson, TL, Robinson, JD, Anderson, DJ, Federowicz, M, (in press)
> > Health Communication: Where have we been and where can we
> > go? In K. Wright and S. Moore (Eds.) Applied Health
> > Communication: A source book. Needham Heights, CA:
> > Allen and Bacon

Research Related Experience:
> Research Assistant: Department of Communication Arts and Sciences
> Penn State University
> Duties: Library research, statistical applications

> Research Assistant: Professor Teresa Thompson
> Duties: Performed participant observations at University events, coded
> Questionnaires and interviews for project studying culture of University of
> Dayton's student neighborhood

> Research Assistant: Professor: Jeff Robinson
> Duties: Transcribed audio and visual data for the project:
> "Patients' Communicative Proactivity During Primary-Care Consultations"
> funded by Pennsylvania State University's Research and Grant Support
> Office.

Teaching:
> Teaching Assistantship at the University of Dayton   2003-2005
> Teach introductory level communication courses

Academic Affiliations:
NCA- National Communication Association
ICA- International Communication Association
ICLASP- International Conference of Language and Social Psychology