

# Psychosocial Assessment of Living Organ Donors: Clinical and Ethical Considerations

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## **Abstract and Introduction**

### **Abstract**

This article outlines psychosocial and ethical issues to be considered when evaluating potential living organ donors. Six types of living donors are described: genetically related, emotionally related, "Good Samaritan" (both directed and nondirected), vendors, and organ exchangers. The primary domains to be assessed in the psychosocial evaluation are informed consent, motivation for donating and the decision-making process, adequacy of support (financial and social), behavioral and psychological health, and the donor-recipient relationship. Obstacles to the evaluation process include impression management, overt deception, minimization of behavioral risk factors, and cultural and language differences between the donor and the evaluator. Ethical concerns, such as the right to donate, donor autonomy, freedom from coercion, nonmaleficence and beneficence in donor selection, conflicts of interest, "reasonable" risks to donors, and recipient decision making are also explored. To fully evaluate living organ donation, studying psychosocial as well as medical outcomes is crucial.

### **Introduction**

The number of patients in need of organ transplantation has increased at a rapid pace; in contrast, the number of available organs has increased only slightly.[1] Expanded criteria for donor selection, such as older age, have resulted in more people who meet the criteria for brain death becoming organ donors,[2-6] although fewer organs are transplanted from each donor.[1] Improvements in automobile and highway safety, as well as increased enforcement of gun control laws, have also contributed to a plateau in the number of young, healthy donors.[6] Public education efforts that encourage organ donation may be effective in getting more people to sign organ donor cards,[7,8] but most individuals who do so will never be in a position to become organ donors.

Faced with increasing numbers of patients who need transplantation, deaths on the waiting list, and a fixed number of available organs,[1] some transplant programs are working to increase the number of transplants from living donors. Although living donation has always been an option for some types of transplants, many programs have been reluctant to promote it, as living donation requires invasive surgery on a healthy person with associated risks of morbidity and mortality.[9-12] For example, since dialysis is an option for patients with end-stage renal disease, surgery on a healthy donor may be difficult to justify, despite the dialysis patient's diminished quality of life.

Living donation is a relatively new option for those with liver disease. Donation of the smaller, left lobe of the liver to pediatric recipients has been practiced for a number of years with excellent results.[13-15] Living liver donation for adult recipients was pioneered in Japan, where cultural and legal obstacles to use of cadaveric organs made the consideration of living donors necessary.[16,17] In Germany and Hong Kong, where the shortage of cadaver organs was impeding the development of transplantation technology, experimentation with transplantation of the larger right lobe of the liver was initiated.[18,19] The assumption that a living donor could not survive the loss of so much tissue gave way to evidence that the liver regenerated to nearly full size within 2 weeks of surgery.[20] Living lung donation has been attempted in pediatric recipients,[21-23] although this has not yet become a routine option. Bone marrow transplant, from both related and unrelated living donors, is routine, because marrow aspiration is a low-risk procedure, with minimal discomfort and recovery time.[24]

Living donation has several advantages over cadaveric donation. A genetically related donor is more likely to be HLA compatible with the recipient, possibly allowing for lower doses of immunosuppressant medications to prevent rejection.[25] Surgery can be scheduled at an optimal or convenient time, which may reduce risks for the recipient. Minimal transit time reduces ischemia and damage to the organ.[12,26] Psychologically, the recipient may experience a greater sense of responsibility to care for the donated organ. Graft survival in kidney transplants from both related and unrelated living donors exceeds that for cadaver organs (94% vs 88% at 1 year).[27] Finally, there is usually sufficient time to evaluate potential living donors, thus ensuring that they are medically and psychologically suitable.[28]

Psychosocial assessments are routine at many centers for higher risk surgical procedures, such as kidney, liver, and lung donation,[24,29,30] although such assessments may be conducted less often or on an as-needed basis for lower risk procedures such as bone marrow donation.[31,32] Although living donors are turned down for both psychosocial and medical risks to the donor,[33] not enough empirical studies have been done that demonstrate psychosocial risk factors for

poor outcome to be able to guide clinical decisions about the rejection of certain potential donors. Psychosocial data are needed to better inform and shape evaluations of prospective donors. Some questions about living donation are fundamentally ethical, to be resolved through ethical analysis and professional and societal consensus. In this article, we provide a framework for discussion and thought, drawing primarily on our own clinical experience and transplant team interactions. We raise more questions than we answer and express our opinions when it seems appropriate. As the number of organs donated by living persons increases, so does the need to study donor outcomes. In order to do this effectively, transplant researchers will need to adopt procedures for evaluating candidates for living organ donation from a psychosocial perspective. Since these evaluations may vary based on the donor-recipient relationship, we will first discuss 6 types of living donors who may present for evaluation.

### **Types of Living Donors**

We have identified 6 types of living organ donors; these groups are not mutually exclusive. However, classification can be helpful in framing certain psychological and ethical issues.

#### **Genetically Related Donors**

First-degree relatives of transplant candidates are often the first approached about living donation. Parents and adult offspring share 50% of their HLA genes with each other. Full siblings can share up to 100% of their HLA genes, dramatically improving the chances of a close histological match. An identical twin would be the ideal donor, provided that the underlying cause of the illness did not affect both twins, as immunosuppression would be unnecessary. Certain chronic and life-threatening conditions run in families; therefore the reluctance of family members to put themselves at risk once 1 family member is afflicted is understandable. On the other hand, bonds within the nuclear family can be strong and may influence close relatives to come forward as donors, regardless of risk. More distant relatives, including grandparents, aunts, uncles, cousins, nieces, nephews, and half-siblings can also donate. Histological match is not equally important for all types of solid organ transplantation, and emotional closeness is not necessarily proportional to closeness of kinship. Our experience has been that, as the degree of kinship becomes more remote, social obligation to donate may be less strongly felt. For this reason, emotional connections may be as strong or stronger between recipients and distant relatives who choose to be donors. Although distant relatives and unrelated persons may not be preferred from the perspective of a close histological match, they may still be preferable to cadaveric donors.[34]

#### **Emotionally Related Donors**

The offer of donation follows naturally from a relationship that has been built on reciprocal giving. Personal commitment to another person, such as a spouse, may

move a person to become a living donor. While the desire to support one's spouse through illness and hardship may be strong, competing desires, such as the need to assure that the healthy parent is able to continue to rear and nurture the children, may conflict. Other relationships based on love, affection, and mutual interests may also result in offers of donation. For example, unmarried partners, former spouses, former lovers who have maintained a close relationship, and friends may all come forward as donors. Consideration of emotionally related donors is a relatively new development, with potential risk for coercion and problematic donor relationship issues. These concerns have prompted some to recommend mandatory ethics consultations whenever living unrelated donation is considered.[35]

### **Good Samaritan Donors (Directed)**

A "Good Samaritan" donor has a distant relationship (or no relationship) with a specific recipient. The offer to donate comes from a desire to relieve the distress of the recipient or someone close to the recipient. For example, many persons sign up in bone marrow registries in an effort to help an identified recipient, even though the chance of their matching is small. Once in a data bank and available to be called upon later to donate bone marrow for a different recipient, these Good Samaritan donors become de facto nondirected donors.

### **Good Samaritan Donors (Nondirected)**

A nondirected donor is someone who wishes to donate an organ to be used by any recipient who needs it, without knowledge of the recipient's need or distress. Most blood donors are nondirected donors. Routine consideration of nondirected donors for solid organ donation is in its infancy, and the ethical issues are only beginning to be addressed.[36] Consideration of a nondirected donation puts the responsibility on the transplant team to select an appropriate recipient and can open the transplant program to questions about the fairness of the selection process.

### **Vendors**

Vendors are persons who hope to profit from the sale of parts of their bodies, which is illegal in the United States. The prospect of organ vendors leads to concern that individuals might conceal important information about their health histories and risk behaviors to make an anticipated sale.[37] Exploitation of the poor is another concern.[38,39] In fact, if the monetary incentive is sufficiently large, even the nondestitute may be tempted to underrate the medical risks of donating. As the pool of potential living organ donors is expanded beyond genetically related donors, the possibility of covert sales of organs becomes a greater issue.

### **Organ Exchangers**

A final category of organ donor is the person who wishes to donate for an identified person such as a friend or relative, but who is not an appropriate match for that recipient.[40] Experimentation with paired exchange programs or other arrangements in which a recipient with an unmatched living donor is, in return for the donation, moved to the front of the transplant list, is in early phases of discussion and implementation. This complex topic is beyond the scope of this article, but the situation involves many of the same psychosocial issues and some additional ones that merit further research.

A transplant program assumes a significant obligation to living donors because donors assume the risks associated with a surgery that is of no medical benefit to them. For this reason, selection criteria should be in place to assure that candidates for living donation are in good enough health to undergo an elective procedure. Since behavioral and psychological health, as well as social support, are important aspects of a patient's ability to recover from surgery and cope with unforeseen difficulties, a psychosocial evaluation should be a mandatory part of the screening and selection of living organ donors.[6,26]

## **Clinical Issues in the Psychosocial Evaluation of Living Donors**

### **Purpose of the Evaluation**

At our center, a typical psychosocial donor evaluation, including a collateral spouse interview, is completed in less than 90 minutes. The task of gathering all potentially important information may seem daunting, but our experience is that it can be realistically achieved through the combination of the psychosocial evaluation and routine assessments performed by other members of the transplant team (eg, physicians, nurses, social workers). Donors with complex histories may occasionally require lengthier evaluations that involve review of psychiatric records or completion of psychological testing. However, in situations where the donor is viewed as potentially "high risk," we believe that extra effort at the beginning of the process is preferable and may avoid long-term problems. Psychosocial evaluation of living donors must address the important issues of informed consent, motivation for donation and the decision-making process, financial and emotional support, behavioral and psychological health, and the relationship between donor and recipient, including diversity issues.

### **Informed Consent**

Properly obtained informed consent is of paramount importance. Informed consent requires 3 elements: adequate provision of information to the patient, adequate capacity for decision making, and freedom from coercion.[41] Specifically, does the donor fully understand the medical procedure that he or she is about to undergo, including potential risks? Does the donor have realistic expectations regarding the amount of time needed for recovery and return to work? Finally,

does the donor comprehend the success rate for transplant (including morbidity and mortality) and still find the odds acceptable in view of the investment that he or she is about to make? Of related concern is the issue of possible coercion. Has the donor freely given consent, or has undue influence been exerted upon him or her by the recipient, family members, or members of the transplant team?

### **Motivation to Donate**

Motivation to donate and the decision-making process should be carefully explored. For how long has the donor been contemplating donation? Has anyone tried to influence the donor, either for or against donation? Does the candidate have significant reservations about becoming a donor? Is the donor's motivation reasonable, understandable, and consistent with the motivations of other donors? Is the donor acting on the basis of internal (eg, sense of duty to family) or external (eg, social approval, such as in a church community) forces? Is the donor freely choosing to donate, with no pressure, coercion, or improper incentives to donate? Are there obvious difficulties in the relationship between donor and recipient, suggesting that the donor may be acting against his or her own best interest? Is the donor experiencing extreme ambivalence, obsessional indecision, anxiety, or fear of surgery?

### **Support**

Psychosocial evaluation must also include an assessment of the donor's available physical, financial, and emotional support. Does the donor have someone to provide care during the recovery period? Does the donor have sufficient financial resources to be out of work for a period of time and still meet routine obligations? Does the donor live close enough to the transplant center to assure easy access to follow-up care -- and if not, has a physician qualified to provide follow-up care been identified and agreed to collaborate with the transplant center? Has the donor been realistic in planning for surgery and the recovery period? Our experience has shown that some donors, particularly those who have never had major surgery, expect to return to work in short order, as though the surgery never took place. Should complications develop, the donor may experience considerable distress, particularly if a contingency plan for sufficient support to last throughout a more extended recovery period has not been considered. Finally, does the donor have the support of significant others for being a donor, or is he or she choosing to donate over the objections of persons who have a legitimate interest in the outcome of an autonomous decision?

### **Family Attitudes Toward Donation**

Spouse and family attitudes about donation should be explored. Collateral interviews with significant others, especially those who will be providing tangible support during the recovery period, should be conducted whenever possible. Conflicts between potential donors and significant others should be addressed and,

ideally, resolved prior to surgery. Family members should possess a good understanding of the donor's wishes and motives, even if they agree to disagree. While the recommendation for collateral interviews of spouses or significant others may seem paternalistic, donors who disregard the strongly held opinion or feelings of their life partner raise concerns worthy of exploration. In the extreme event of donor mortality, a surviving spouse who was opposed to the donation might be more likely to become adversarial toward the recipient and the transplant program.

*Vignette.\** A man checked into the hospital to be evaluated as a living donor for his cousin after learning that she was near death. He reported that his wife would "kill him if she knew" of his intent to be a donor. He had already undergone several invasive procedures before the psychosocial transplant team became aware of this conflict. The man was subsequently persuaded to let his wife know that he was in the hospital and planning to donate. During a telephone interview, the donor's wife stated, after recovering from her surprise, that she supported his decision to be a living donor. He completed his evaluation and underwent surgery the following day. In this case, contact with the spouse clarified that she was not opposed to her husband serving as a donor, thereby eliminating a concern about family opposition and lack of support for the donor.

### **Behavioral and Psychological Health**

The behavioral and psychological health of the donor should also be considered. Is the donor's lifestyle sufficiently healthy to reduce unnecessary risk for both donor and recipient? Many potential donors may have some unhealthy behaviors, such as moderate obesity or smoking. Is there sufficient time for the donor to reduce risks (eg, lose weight, stop smoking)? Should the transplant team impose these changes on patients if the problems are not great enough to preclude safe surgery?

Determining whether serious mental illness or character pathology may place the donor at too high a risk to make donation feasible is also important. More specifically, is the donor sufficiently emotionally stable to cope with stresses which may come up before, during, and after the donation? Is there overt or indirect evidence that the wish to be a donor reflects self-destructive or suicidal feelings? Self-sacrifice can be a noble or pathological impulse or both; distinguishing which is operating may be difficult. What is the potential that the donor will develop somatization symptoms that could result in high medical resource utilization, prolonged disability, chronic pain, attention seeking, or other secondary gain as a result of undergoing an elective surgery? Is the donor prepared to handle medical complications that either the donor or recipient might experience? For instance, is the donor equipped to deal with the recipient's decline or death, should either occur?

### **Donor-Recipient Relationship**

The relationship between the donor and recipient is a complex matter. Even when both parties are agreeable to donation and transplant, family dynamics may be complicated, and other family members may assertively involve themselves in the decision-making process. The donor may have unrealizable expectations that transplant will alter his or her relationship with the recipient. Evaluators should not expect an ideal relationship in which all interactions between donor and recipient are harmonious. However, obvious tensions and overt psychopathology should be addressed. Joint interviews, involving both donor and recipient, should be avoided early in the evaluation process in order to preserve privacy and give the potential donor the opportunity to express reservations or "opt out" gracefully. In situations involving nondirected donors, determining whether the donor wishes to donate regardless of the recipient's wish to maintain anonymity is also necessary. Expectations the donor might have for a future relationship with the recipient should be considered. As more living donor transplants are performed, the nature of donor-recipient relationships, before and after transplant, should be carefully studied.

### **Diversity Issues**

Nondirected donors may have diversity concerns that may necessitate the development of policies of nondiscrimination. Potential donors should be assessed for comfort with donation to recipients of different genders, races, religions, sexual orientations, nationalities, ages, underlying diseases, and lifestyles. Donors who express objections, fears, or concerns about who might receive their organ may need to be deferred until they can receive counseling.

### **Limitations of Psychosocial Evaluation**

The psychosocial evaluation of potential donors may be influenced by a number of factors that can be difficult to control for or fully appreciate. Even the most skilled clinician will sometimes have difficulty understanding the motivations and intentions of prospective donors. The demands of the situation that drive potential living donors to offer themselves may be so powerful as to preclude the possibility of an accurate assessment. However, the clinician should strive to be aware of these demands and to weigh their influence. Below are several problems that have arisen in relation to the evaluation process at our center.

### **Impression Management**

All clinical interviews create a context in which individuals being evaluated must be concerned about how they are perceived. The task of creating a favorable impression is inherent in most interpersonal interactions, but especially in evaluations. Nevertheless, different individuals approach the task of impression management with enormous variability. Some appear to have little self-awareness or awareness of their impact on the evaluator. Some present openly, displaying

few defenses. Others strive to present a persona that can only be described as "too good to be true." In fact, the remarkable "goodness" of many living donors can initially be disconcerting to a clinician accustomed to working with patients with considerable psychopathology. Distinguishing between genuine and either feigned or strained altruism is as much an emotional as an intellectual task, requiring the clinician to observe and admire the best qualities of humanity while maintaining objectivity and a healthy skepticism. Clinicians must guard against becoming jaded and cynical; such a perspective may make it difficult to believe that the love and self-sacrifice evidenced by donors is real. Finally, anguish experienced by ambivalent donors must be met with an empathic response. The reservations and fears of such donors can be difficult to express at a time when they desperately wish to present themselves as fully committed to a noble act.

### **Deliberate Deception**

While impression management is normal, deliberate deception is less common but of considerable concern. Reasonable efforts to prevent illegal sales through routine questions and common sense may be adequate. If the evaluator suspects an illegal arrangement for the sale of an organ by a prospective donor and recipient, an inquiry should certainly be made. However, the clinician and the program are not obligated to act as police.

*Vignette.* The transplant team was notified that a patient from another country would be arriving with a number of members of a religious sect, all of whom were willing to donate for her. In this particular sect, organ donation is regarded as a highly spiritual act that moves the selected donor to a higher spiritual plane. Realizing that members of the sect were only volunteering to be donors for a specific recipient and were not offering themselves as potential donors for other patients on the transplant list, the team suspected that this story was a cover for financial motivation. The patient was advised that the team would not consider any of these donors for her.

### **Concealment of Important Information**

Other situations might include concealment of medical or psychiatric history. This can be a significant problem when the recipient nears death and there is limited time to evaluate donors. In such situations, clinical examinations and laboratory studies may be bypassed, medical records may not be obtained, and the word of the donor must therefore be relied upon. Donors can be told that minimizing health problems is not in their or the recipient's interest; however, the pressure associated with impending death can be overwhelming. Minimization of alcohol and other drug abuse may occur, especially in final-hour assessments. Such minimization is common in medical populations,[42,43] even when potential donors are carefully interviewed regarding substance use. In our experience, even very young donors can have serious substance abuse problems that are evident in the results of liver

function tests or biopsies but which were concealed during the interview. Claims by a prospective donor about having made radical changes in substance use within the past few months should be regarded with skepticism and verified with collateral sources whenever possible. The willingness of donor candidates to accept an increase in their own risk by concealing important health information may come from a positive wish to help someone else, but such potential donors may be underestimating the risk to the recipient.

*Vignette.* The sister of a woman with fulminant hepatic failure came forth as a donor during a weekend when the woman's children could not be located. The donor stated that she was in excellent health, providing evidence of her fitness activities and active lifestyle. A limited preoperative evaluation revealed high cholesterol and mild hypertension, but the results of liver function tests were within normal limits and screening for viral hepatitis was negative. Unfortunately, time was not available for a cardiac work-up, and the donor's primary care physician could not be reached. The donor's recovery from surgery was slow and complicated. She later acknowledged that she had previously had abnormal results on liver function tests and was being monitored by her physician.

### **Culture and Language**

Culture and language differences may create another challenge for evaluators. A potential donor who does not speak the same language as the evaluator can be difficult to assess, even if an interpreter is available.[44] Sometimes the only available interpreter is a member of either the donor's or the recipient's family. If the prospective donor, recipient, and interpreter are all related, the interview may be colored by the interpreter's motives and wishes. Even independent interpreters may allow their own values to affect the process of interpretation, undermining the objectivity of the evaluation process. Routine inquiries about private matters such as medical history, changes in sexual desire or performance, and mental health history can be especially difficult for donors to discuss in the presence of a third party, and some lines of questioning may be culturally inappropriate. In addition, the gender of the evaluator may be an issue for persons from cultures unaccustomed to sharing intimate information with members of the opposite sex. The more cultural and language factors that can be accounted for and accommodated, the more accurate and satisfactory the psychosocial evaluation will be. Simply bypassing the evaluation because of language barriers or cultural preferences is not acceptable, however. To do so would give the message that the mental health and well-being of certain donors is valued less than that of others. Alternately, it might suggest that the transplant center is willing to gloss over the possibility of illicit financial arrangements between well-to-do and poor foreign nationals.

*Vignette.* A woman from another country presenting as a donor for a friend stated

that their bond was extremely close, as the intended recipient of her kidney was the godmother of her child. She explained that, within her culture, the role of the godparents was far more important and meaningful than in the United States and included the commitment to care for the child in the event of the death of the parents. This claim was regarded with skepticism by some members of the transplant team, who wondered whether financial motivation was somehow involved. However, a physician from the same culture who was not associated with the transplant program was consulted; he verified the cultural significance of the godparent role in the donor and recipient's culture.

## **Ethical Issues**

The number of persons awaiting transplant has increased exponentially, while the cadaveric donor pool has grown at a much smaller rate.[1] Technological innovations such as artificial organs, cell transplantation, xenografting, and laboratory-grown organs offer hope over the long run.[45-47] Some newer technologies, such as dialysis, offer short-term bridges to transplant for a limited number of patients now awaiting transplant.[48] In the meantime, innovative surgical techniques are available to make transplantation from living donors not only possible, but also the most likely source of organs for many patients lingering on waiting lists.[7] Living organ donation has raised considerable controversy. As the ratio of demand to supply continues to increase, there will be more living donors, more requests for persons to become living donors, and more ethical concerns with which to contend. While most of these issues must be discussed and decided within the transplant community as a whole, many issues that pertain to the psychosocial evaluation process deserve careful consideration by specialists in the psychosocial aspects of transplantation.[49-51]

## **Right to Donate**

Whether persons have an inherent right to become living donors deserves more discussion. Good Samaritan donation, both directed and nondirected, is an area in which this issue is emerging. How should the transplant community view individuals who volunteer to undergo a surgical procedure that poses risks but no benefits to themselves but which benefits total strangers? Are we exploiting a vulnerable, potentially pathological group of people, or are we making possible the expression of that which is most positive and uplifting in human nature?

Donation between genetically related or emotionally related persons might also raise concerns about the right to donate. For example, in our program, several mothers of infants needing transplants have expressed a desire to donate for their children, even though cadaveric donors might become available. They express a calling to bring the gift of life to an even higher level, as well as a sense of safety in knowing that the donated organ is coming from them. Should these women be dissuaded from being donors because of the risk of leaving the baby and other

older children motherless? Do parents have the right to be donors, even in situations where cadaveric donors are available? Should transplant physicians exercise paternalistic protection of persons who want to donate when there is no specific need for them to undergo surgery?

Some transplant physicians argue that competent adults should be able to make their own decisions about donation.[52] However, the presumption of competence does not relieve transplant programs and physicians of the responsibility to fully inform people who want to be donors of the risks and costs of surgery. In addition, we have a duty to prevent foreseeable harm. For example, it would be imprudent and exploitative to accept a donor with an unstable bipolar mood disorder. Even in areas of medical practice where most care is elective, such as cosmetic surgery, scrupulous physicians do not perform surgery on demand but carefully determine that surgery is in the interest of the person who requests it.

### **Autonomy**

Beyond the decision to be a donor, other issues of donor autonomy may emerge. Living donation is typically directed, as donors choose to undergo surgery on behalf of a family member or friend. Should the practice of nondirected donation become more prevalent, however, the transplant community will need to address what limits, if any, should be placed on the individual preferences of donors regarding recipients. In fact, these same questions can be raised for directed donation of cadaveric organs.[53,54] Should donors be able to choose a specific recipient from the recipient pool or designate that their organ be given to a person of a specific gender, race, or religion? Should transplant programs develop guidelines regarding the sorts of relationships donors can have with their recipients? Should programs attempt to facilitate or prevent donor-recipient relationships from developing?

### **Freedom From Pressure and Coercion**

The choice not to donate is also of paramount concern. Most potential donors deny pressure or coercion, although such pressures can be subtle. Subtle coercion may be apparent to members of the transplant team, yet remain outside the donor's awareness. For example, a recipient's family may reach an unspoken consensus about who is the most appropriate donor within the family system. Donors in this situation are likely to deny or minimize coercion when confronted with the team's concern. When pressures are more overt, potential donors may experience a desire to restore freedom of thought and action[55] by resisting the pressure and choosing an alternative option.

*Vignette.* A young man who had been tested as a kidney donor for his mother and who was working through ambivalence about becoming a donor reported that his mother had stood up in church and shouted, "Hallelujah, my son is going to give

me a kidney!" He was unable to resolve his indecision and was deferred as a donor so that other family members who had not experienced the same expectations might come forward.

In some instances, pressure comes not from the recipient or family members, but from certain ideals held by the prospective donor.

*Vignette.* One prospective donor related that he kept hearing the words to a hymn often sung in his church: "whatsoever you do to the least of My brothers, that you do unto Me." Even though he found the prospect of donating anxiety provoking and inconvenient, he felt that he was being called to be the donor for his recipient, pressured by an ideal of Christian love. Such ideals must be respected, but alternative ways of living up to such ideals might also be presented as more reasonable in a given donor's situation.

### **Minimizing Harm**

Nonmaleficence, the principle of doing no harm, is also a consideration. Reverence for this principle has led some prominent surgeons to oppose all living donation.[6,26,56] Undertaking surgery on a healthy person who will not personally benefit from the procedure is a daunting responsibility. No surgery is without risk, including the risk of mortality, although this can be minimized through careful evaluation and donor selection. In our experience, prospective donors appear willing to accept higher mortality and morbidity risks than surgeons are willing to expose them to. Conversely, refusing to allow someone to be a donor is not necessarily doing no harm, except in the most narrow sense. Biologically and emotionally related persons who are prevented from acting to save the life of someone they love may be psychologically harmed by feelings of helplessness and loss. Donors whose recipients experience poor outcome may, nonetheless, benefit from the act of donation and having had the opportunity to do "everything possible" for a loved one. However, if a healthy person is to be put at risk, a reasonable expectation of success should exist. Knowing where to draw the line may be difficult, but a poor prognosis for the recipient is unacceptable.

*Vignette.* A patient was considered for retransplantation because of chronic rejection 9 years after a successful liver transplant. Her clinical status was complicated by diabetes, renal failure, and infection. Her adult son wished to donate for her. House staff requested a consultation because they did not understand why surgery had not been scheduled, given that retransplantation was viewed as her only hope for survival. Furthermore, in receiving an organ from her son, she would not be competing with other patients without living donor options and with better prognoses. House staff members were told that despite the son's willingness to assume the risk of the surgery, his risk was not justified given the patient's poor prognosis.

## **Beneficence**

The principle of beneficence requires physicians and other healthcare providers to act in the best interests of the patient -- in this case, the donor. Unless one takes the radical position that living donation is an unnecessary surgery that is never in the best interests of the donor, this principle must be balanced against respect for donor and patient autonomy. The belief that informed consent is not possible because there is always some degree of pressure or coercion in living-related donation seems paternalistic. For example, some writers have been concerned about offering parents the option of being donors for their children, believing that the stigma of saying no would be too great to allow parents any real choice.[57] As previously noted, however, it is sometimes difficult to get parents to consider cadaveric donation, even when this choice is realistic and practical. The extent to which transplant programs should intervene to protect donors from themselves is not clear. Just as basing decisions solely on a theory of donor autonomy may be unwise, preventing or hindering donation based on too strong an ethic of beneficence may be overly paternal.

## **Conflicts of Interest**

Transplant programs have multiple goals. The mission of helping potential recipients is every program's first priority, but other goals are also important. For surgeons and other healthcare providers, the parallel objectives of performing transplants for professional gratification as well as for the sake of the patient are usually in harmony. However, enthusiasm for the work and goals of transplantation should never take priority over the interests of the donor. At the recent National Consensus Conference on Living Organ Donation, the idea that prospective donors should have a physician advocate who is not a provider for the recipient and, ideally, not part of the transplant enterprise, found widespread agreement.[44] Although finding an objective physician advocate may not always be practical, the transplant team must understand that donor, program, and recipient interests may be in conflict.

## **Recipient Wishes**

Not every transplant candidate is enthusiastic about the prospect of receiving an organ from a living donor, even though the stress of waiting for a cadaveric donor may be considerable.[58] Some patients reject the idea of living donation because it puts another person at risk.[59] Alternately, patients may wish to avoid feeling indebted to a donor. Many recipients are open to the idea of living donation but reject certain family members as donors because of concern for that person and for others to whom that person has obligations (eg, prospective donors who are the parents of young children). Some transplant candidates may reject the idea of living donation because they feel unworthy. In our experience, this logic does not extend to the alternative situation of a candidate competing with other patients on

the waiting list who do not have living donors. Patients who say "I'll take my chances" on receiving a cadaveric organ are typically not thinking about the impact of their decision on other listed patients. It seems too extreme to say that a transplant candidate has an obligation to accept an organ from a living donor if one is available, but impulsive reactions against living donors should be examined.

### **Outcomes for Donors**

As living organ donation becomes more common, studying donor outcomes will become more important.[24] Morbidity and mortality are not the only variables of interest.[59] Research indicates that donors may benefit in self-esteem.[60-64] Return to a satisfactory quality of life is also important.[61,64-69] When organ donation does not benefit the recipient, how donors adapt to loss, grief, and potential sense of futility or failure becomes important.[65,67,68] In addition, studying donors longitudinally will be of benefit. Some interesting research questions include the following: How do donors feel if the graft is initially successful, but later rejected? What if rejection occurs because of recipient noncompliance? How do family dynamics and relationships change as a result of living organ donation?[70] We have an obligation to learn as much as possible regarding short- and long-term effects, for good or ill, of transplantation from living organ donors, and to provide this information to prospective donors.

### **Recommendations for Practice**

Living organ donors pose a unique challenge for mental health professionals working in the field of transplantation. While we may not wish to eliminate every potential donor who has psychopathology or behavior problems, it is prudent to err on the side of caution. As donors are susceptible to psychological complications both before and after donating, we recommend that comprehensive psychosocial services be integrated into a multidisciplinary team approach focused on caring for donors and members of their support system throughout the transplant process. Ideally, care should include pretransplant evaluation and cognitive testing where necessary, an in-hospital psychosocial liaison, and posttransplant follow-up. Pretransplant evaluations should include a thorough clinical interview which assesses the physical, psychiatric, and social domains previously outlined. Additionally, questions about behavioral health practices such as smoking, substance use, and compliance should be incorporated, as the answers will provide valuable insight into the ability and motivation of the donor to adjust to temporary changes in lifestyle that might facilitate donation. Where possible, collateral interviews with significant others should be included to assess the depth and breadth of the donor's support system. Finally, posttransplant follow-up has obvious benefits to the donor, such as continuity of care, but it also provides an opportunity to gather crucial outcome data that is useful in informing changes in the assessment and treatment of living donors.

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