Who gets a transplant organ? People tend to spread scarce resources across groups

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A Rutgers study examines how decisions are made when it comes to allocating scare resources.

Imagine 12 patients who need new kidneys, and six kidneys available. How would you allocate them? New research by Rutgers social psychologists suggests your answer would depend on how the patients and their situations are presented to you.

In research recently published in *Psychological Science*, a journal of the Association for *Psychological Science*, Gretchen Chapman and Jeff DeWitt of Rutgers and Helen Colby of the University of California-Los Angeles found that people make dramatically different decisions about who should receive a transplant depending on whether the potential recipients are presented as individuals or as part of two separate groups.

"The most efficient way to allocate those kidneys is to give all six to the people with the best chance of a successful transplant," says Chapman, a professor of psychology in the School of Arts and Sciences at Rutgers. "But that's not always how it works. It depends on how you frame the choices."

The study might have been done using any scarce resource, but transplant organs make a particularly pressing example. The U.S. Department of Health and Human Services says there are 123,000 people waiting for organs nationwide, and 21 die waiting each day.

In their first study, researchers showed half the participants two groups of six fictional patients. Each patient had a picture and a first name, but one group was collectively labeled as having a poor chance of transplant success, while the other one was labeled as having a good chance. The other half of the participants also saw the two groups of six fictional patients, but there was an individual prognosis attached to each patient's name and picture. Almost two thirds (65 percent) of the people who saw the individual-level prognosis information chose the most efficient option – giving the kidneys to the people most likely to benefit from them. But less than half the people (46 percent) who saw the group-level prognosis information did so.

In second and third studies, participants saw the patients either in two groups or as a unified whole. Participants were less efficient when allocating across two groups than when allocating to 12 individuals.

"It's as if people said, 'Ooooh, groups! We should spread the resources around,'" Chapman said.

In Study 2, half the participants saw patients with identifying information in addition to prognosis – names, pictures, ages – and half saw them with no identifying information but the prognosis and a

number (Patient 1, Patient 2, etc.). In the third study, participants had a chance to explain their allocations. Whenever there were groups, most participants wanted to distribute kidneys to both groups.

The more information beyond the prognosis presented about each patient, the less efficient participants were in allocating kidneys.

In their explanations for their allocation decisions, participants in the third study often said they were trying to be efficient, but cited information other than the patients' prognoses. For example, participants often cited a patient's age as more important than his or her prognosis. They might reject an older person with a good prognosis in favor of a younger person with a poor one. "People might say, 'Well, I know the young guy has a poor prognosis, but he's young, so if the transplant works, he'll get years of use out of the kidney, so I'm giving him a kidney,'" Chapman said.

When potential recipients were considered in groups, participants tended to allocate organs across the groups, ignoring information about the patients' chances of success. Also, Chapman says these findings suggest people have a strong bias toward equality when it comes to divvying up limited resources, even if equality doesn't ultimately lead to the most logical or effective decisions. There are some contexts, however, in which the grouping effect could be helpful.

"Think about managers deciding on whom to hire or promote," Chapman says. "If they grouped candidates by gender instead of presenting them as individuals, they might be prompted to spread jobs across the groups more evenly, which would lead to the hiring or promotion of more women."

The researchers plan on exploring the potential positive outcomes of grouping in future studies.

More information: mdm.sagepub.com/content/early/ … 272989X15592156.full

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