

Title: Untapped Potential: The Process and Benefits of Developing an Educational Tissue Advocate Program for Non-Clinical OPO Staff

Author: Lexi Ames PGCert, CTBS

Background: Are OPOs missing out on an intrinsic team of advocates who could engage their communities on the topic of tissue donation on an approachable, conversational scale? By designing and executing a Tissue Advocate Program (TAP) at LifeSource in Minneapolis, Minnesota, we have created a functional program in which staff members can foster their curiosity of the subject matter into enthusiastic ambassadorship.

Hypothesis: OPO staff members with little or no experience in clinical settings are eager to further their understanding of donation and have great potential as advocates for tissue donation. A comprehensive program using illustration, storytelling, and real grafts would allow non-clinical staff unique insight into donation in a comfortable, controlled setting.

Methods: In order to address the complexities of tissue donation, we built a multi-pronged education plan reflective of the spirit of LifeSource. During 10 months of development, we worked with various management and communication staff members to ensure our vision remained appropriate to our organization's mission, and to create educational accessories.

The program consisted of three parts. The first session comprised of a traditional classroom experience, addressing the history, procurement process, and outcomes of tissue donation. In the second session, attendees were invited to don scrubs for a tour of our recovery suites. There, they had the unique opportunity to observe completed grafts lent by our processor partners and compare them to tissue examples recovered from an Anatomical Bequest donor. These grafts were accompanied by 6 illustrated posters regarding the anatomy of donation, a backtable with instruments, and guidance through the space by tissue team volunteers.

The day was completed with a graduation ceremony, where attendees were awarded for their achievement as Tissue Advocates. Crucially, all sessions were led by knowledgeable members of the recovery team, strengthening relationships and recognition between the tissue recovery staff and other teams at LifeSource. A survey was sent to participants to gauge the success of the program.

Results: The inaugural TAP event in 2023 was highly successful. The roster met its capacity nearly immediately, and the event was easy to manage without disrupting donation activity. Participants were asked to rate their understanding of donation on a scale of 1 (No Understanding) to 5 (Detailed Understanding). Prior to the program, 25% of respondents answered "2" and 75% answered "3." In contrast, 100% of respondents that completed the program rated their comprehension as "4" or higher. Based on these results, TAP was

tweaked slightly and reproduced in 2024. While two sessions were initially proposed, logistics and demand proved that a singular annual program is more appropriate.

Conclusions: TAP has proven to be a useful and unifying exercise for the staff of LifeSource. It is our intent to continue to develop the program, allowing for additions of new donation technologies and stories, and omissions of outdated metrics. Costs associated with the program, such as the research donor and poster production, are budgeted for annually by the LifeSource tissue department.



Figure 1: Photograph of author discussing CV tissue grafts during OR tour portion of the Tissue Advocate Program in 2023

OCULAR GRAFTS

When a family has consented to donating a loved one's eyes, there are two possibilities for recovery: Cornea Grafts or Whole Globes. This depends on the donor's age, the time that has passed since death, and previous eye surgeries a donor may have experienced in life. Neither case results in the transplant of the entire eye. Rather, each procedure preserves a specific portion of the eye, which can then be used to restore sight in a waiting recipient.

1. CORNEA GRAFT

The cornea is the clear, domed, window-like structure that covers the iris and pupil. Light enters through its surface and is refracted by its curvature deeper into the eye. Like the glass of a window, a cornea can become foggy, scratched, or even break, creating scars that cause vision impairment or loss. A patient's eyesight can be improved or entirely restored by replacing their damaged cornea with a graft known as a Cornea Button.

During a cornea graft recovery, a member of the tissue team assesses the anatomy and overall health of the eyes and surrounding structures. After recording any findings, the team member cleans the surrounding face and eyes, places surgical drapes around the eye, and very carefully removes the cornea using a series of specialized instruments. This recovery requires a particularly gentle and steady hand, as the cornea is delicate and cannot withstand tugging or scraping. When the tissue has been successfully removed, it is placed in a cornea viewing chamber with a bright pink chemical solution for preservation. The clear chamber allows for a processing technician to view the cornea and assess it for damage, which will ultimately determine how much of the cornea can be used in a transplant, and for what sort of repair it would be best suited for.



SPOTLIGHT ON:

PEN LIGHT EXAM

Before an eye recovery can take place, a tissue team member carefully assesses the anatomy and health of the face and eyes. An important aspect of this evaluation is the pen light exam, which allows the team member to shine light through the eye, illuminating potential debris, abnormalities, or signs of previous surgical procedures done within the eye. If a donor has had a lens replacement surgery, the new lenses will reflect light differently than a natural lens. This is crucial to the donation process, as surgical history dictates whether whole globes or corneas will be recovered, and for which processors."

2. WHOLE GLOBE GRAFT

A whole globe (entire eye) recovery typically takes place when the donor is outside the acceptable age range for cornea donation, or too much time has passed since death was determined. The team member then cleans and prepares their surgical field and fits the surgical drapes into place around the eye. Using an ocular speculum to keep the eye open, they carefully sever the structures around the eyeball that holds it in place; first the conjunctiva (the transparent "skin" of the eye), the six minuscule muscles that control movement, and finally, the optic nerve and blood vessels at the very back of the eyeball. Once this procedure is complete, the eyes are then packaged gently with ice, awaiting processing.

The main graft derived from a whole globe is the Scleral Graft. The sclera, or white portion of the eye, acts like the tight rubber of a water balloon. To maintain the proper internal pressure of the eye, as well as keep all the contents held within, a scleral graft may be used to patch a hole in the eye after surgery or injury. Other portions of the eye may be used as grafts as well, including the retina.



References:

1. Totsberg-Harris M, and Bredakorn-Mayr. "Preparation and Use of Human Sclera Graft in Ophthalmic Surgery." *Developments in Ophthalmology*. www.ncbi.nlm.nih.gov/pubmed/19484641



Figure 2: The "Ocular Graft" poster created by the author for use in the Tissue Advocate Program. The 6 illustrated posters were designed to engage and educate non-clinical attendees with various backgrounds.

The Process and Benefits of Developing an Educational Tissue Advocate Program for Non-Clinical OPO Staff

Lexi Ames, CTBS • Tissue Recovery Coordinator Lead

Advocates are at Your Fingertips

Are OPOs missing out on an intrinsic team of advocates who could engage their communities on the topic of tissue donation on an approachable, conversational scale? By designing a Tissue Advocate Program (TAP) at LifeSource, we have developed a functional and exciting way for non-clinical staff to further their knowledge of the tissue donation process.

Program Goals

Founded by two recovery staff members, TAP grew from a desire to fill gaps in understanding, and to build familiarity between non-clinical staff and members of the tissue team. To make TAP a success, we focused on three goals:

Enrich

Engage attendees by showing them how their jobs make tissue donation possible, from IT and Accounting, to Facilities and HR!

Educate

Bring the impact of donation to life using storytelling, illustration, anatomical specimens and working members of the Tissue Department.

Advocate

Foster relationships between clinical and non-clinical staff to encourage curiosity and fresh conversations about the donation process; Build the confidence of participants to engage with their loved ones and communities about the importance of tissue donation at a personal level.

Development

Tissue donation is a complex process; so is developing a thorough education program! We built a robust multi-pronged education plan reflective of the challenges of the work, *and* of the spirit of LifeSource. During 10 months of development, we worked with management and communication staff members to ensure our vision remained appropriate to our organization’s mission. Their approval of the following of was crucial to ensuring the program’s success.



Swag designed for the Tissue Advocate Program by Mike Hutto. Photo by Lexi Ames.

Messaging and Education - Scripts, promotional materials, educational interview videos, and posters were all carefully crafted and reviewed to ensure they fit the needs of the program and the values of LifeSource.

Educational Products- Bespoke props including large-scale posters illustrating the anatomy of donation.

Costs- Anticipating the needs of the program, including a whole-body donor from the University of Minnesota Anatomy Bequest program, printing costs, and take-home products.

Swag- Each attendee graduates with a certificate, lapel pin, and sticker to promote their knowledge of the subject and invite curious conversations.



The attendees enter the OR to see tissue grafts, accompanied by illustrations and knowledgeable tissue team staff. Photo by Mike Hutto.

TAP in!

What does TAP day look like?

While day-of management requires about 9 hours from prep to clean-up, the educational program itself lasts about 3 hours. Attendees experience the program in 3 parts:

Classroom: The attendees learn about the history, procurement process, and outcomes of tissue donation, along with an open Q&A.

OR Tour & Wet Lab: During this highly anticipated portion of the program, attendees don scrubs for a tour of our recovery suites to observe processed grafts alongside freshly recovered tissue. These grafts are accompanied by 6 illustrated posters specially designed for TAP, a backable with instruments, and guidance through the space by Tissue Team volunteers.

Graduation: After an OR debrief, attendees are awarded for their achievement as Tissue Advocates.

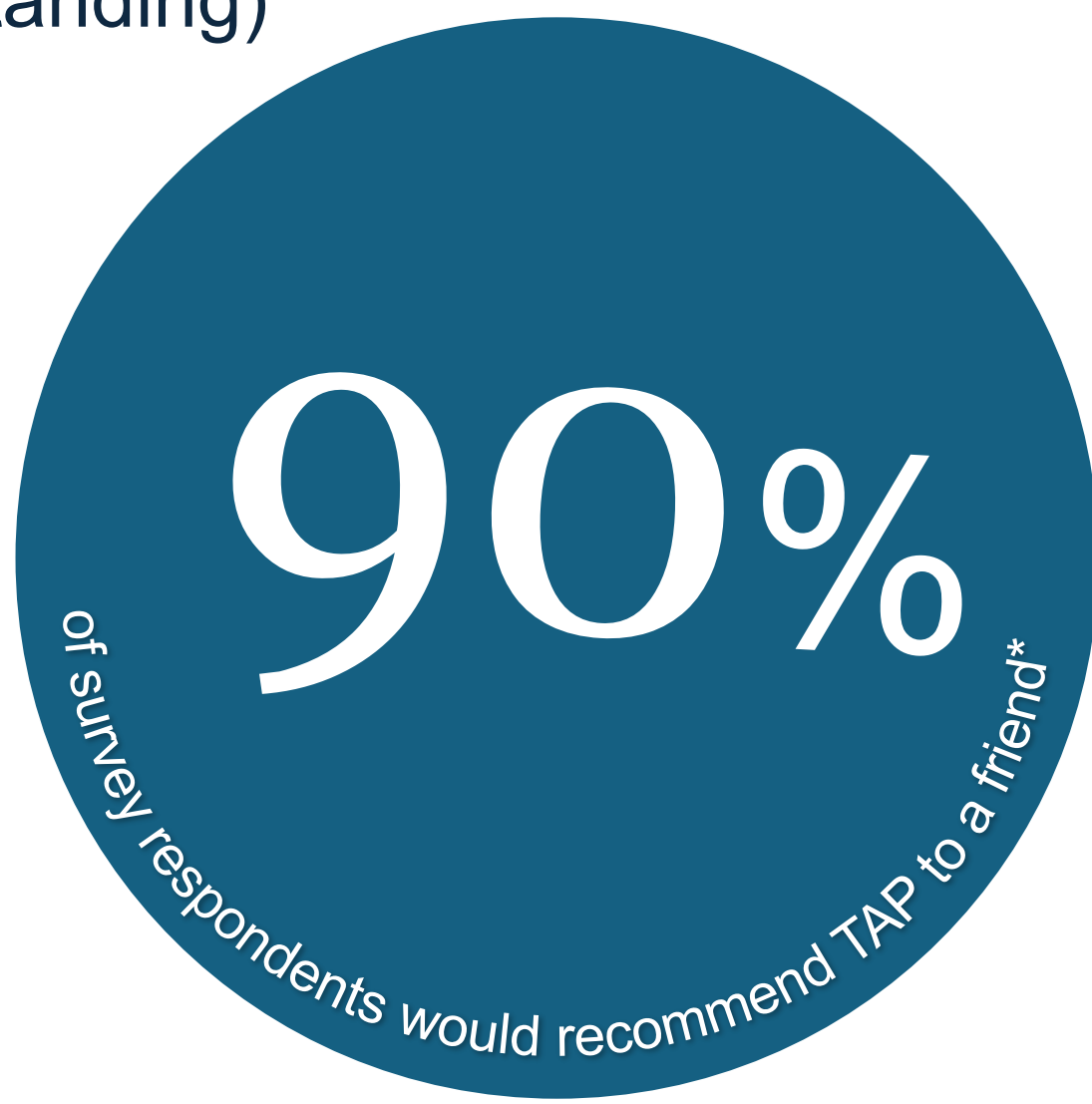
Crucially, all sessions are led by knowledgeable members of the recovery team; strengthening relationships and recognition between the tissue recovery staff and other teams at LifeSource.

Reception

Participant enthusiasm and anecdotes tell us TAP is a success, but we also keep a close eye on statistics! A survey is sent to participants before and after TAP to gauge the success of the program. Attendees use a scale to rate their comprehension of tissue donation from 1 (No understanding) to 5 (Detailed Understanding).

To date, 100% of survey respondents rated their understanding of tissue donation as 4 (Decent) or 5 (Detailed) upon completion of TAP. It is common to see Tissue Advocates proudly displaying their certificates at their workstations or sporting their lapel pins on their work ID lanyards.

*Results are reflective of combined survey data from 2023 and 2024



The Future of TAP

What does the future hold for TAP?

We have already used feedback from prior sessions to improve upon the program, including the creation of take-home fact sheets and allowing for more Q&A time. The Tissue Advocate Program continues to be supported by our management team, and we hope to expand our outreach opportunities, including education sessions tailored for students in mortuary science, and family members of OPO staff members.

While initially the brainchild of just two tissue team members, the advancement of the program from vision to reality required the collaboration of many hands throughout the organization; a highly rewarding outcome itself.

