MEETING THE NEED: DEVELOPING A CLINICAL PATHWAY TO INCREASE TISSUE REFERRALS FROM RURAL ALBERTA

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DEDICATION

To my husband Jason, you have been my rock throughout this entire journey. I say thank you for all the times you encouraged me, supported me, and reviewed every paper I submitted. To my children Corbin and Mercedes, who inspired me to finish, were always there with encouraging words and offered technical support on many occasions. My parents Cliff and Deanna who understood when I said I was busy with school and continually reminded me of how proud they were.

To all the donor families I have been privileged to work with over the past 12 years. I am humbled by the strength you have shown in your time of sorrow and your ability to think of someone else, to make their day a little better. You all have invited me into your circle of grief. You have allowed me to briefly walk with you as you move forward without your loved one. I am forever grateful to all of you as you have genuinely shown inner strength and beauty, and I am honoured to have met you.

ABSTRACT

Tissue donation is essential for many individuals to improve their quality of life, and unfortunately, the need exceeds the supply. Although the Province of Alberta (2013) enacted legislation that requires all deaths be considered for donation potential, a knowledge gap still exists. The ongoing problem of missed tissue referral inspired the development of a clinical pathway that would provide health care providers the necessary tools to assess individuals for donation potential. The clinical pathway underwent a two-phased evaluation, first from subject matter experts within the donation program and finally through the Chinook Health Region ICU leadership team. This two-phased approach provided constructive feedback, resulting in a clinical pathway ready to be implemented at rural hospitals.

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This project document has been professionally edited.

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DEFINITIONS AND ACRONYMS

Acronyms

AOTDR: Alberta Organ and Tissue Donation Registry
SAODP: Southern Alberta Organ Donation Agency – the ODO located in Calgary, Alberta.
SAOTDP: Southern Alberta Organ and Tissue Donation Program

Definitions

Donor: A person who is either neurological dead or meets criteria for cardiocirculatory death whom cells, tissues or organs are retrieved for use in a recipient (Canadian Standards Association., 2012).
Donor Coordinator: Registered Nurse with specialized training in the field of organ donation.
Retrieval: The surgical removal of organs with the intent of transplanting into another individual (Canadian Standards Association., 2012)
Organ Donation Organization (ODO): The center who is accountable and leading the organ donation process including retrieval and distribution (Canadian Standards Association., 2012).
Potential Organ Donor: A person who has been identified as meeting either neurological determination of death or plan for withdrawal of life-sustaining therapy and consent has been obtained for the purpose of organ or tissue donation (SAODP, 2017)
Rural: any hospital or health care center outside of Calgary and Edmonton

SECTION 1: INTRODUCTION

The need for organ and tissue donors is at a critical state in Canada, according to a recent report released by Health Canada (Canadian Government News, 2019). Tissue donation is considered a life-enhancing gift; without it, an individual may live, but with limitations. These limitations might include blindness, restricted mobility, and limited cardiac function, depending on the needs of the patient. When health care providers (HCP) approach a family for tissue donation, the family may choose to consent to the following donatable tissue: the eyes, skin, heart valves, tendons, and cartilage recovery. The significant difference between organ and tissue donation is the timing of the transplant, as all organs must be transplanted within 24 hours of recovery. In contrast, tissue can be preserved and stored for transplant for up to five years. One tissue donor can help up to 75 individuals.

Tissue donation benefits patients facing severe or life-threatening medical situations, including those with severe burns, torn ligaments or tendons, and those in need of musculoskeletal structure repairs including teeth, skin, and spinal components. Heart valves may be transplanted to save the lives of pediatric patients suffering valve dysfunction. Pediatric patients are the typical recipients of a cadaveric valve, giving them a chance at a better quality of life. To alleviate pain and scarring in burn patients, donated skin provides a protective and lifesaving barrier during their early days of recovery. Skin can be stored for cosmetic grafting at a later date. Bone donations are vitally important in pain reduction and improved mobility. Many sports injuries require tendons, cartilage, and meniscus tissue, which are imperative to early mobilization and rehabilitation/recovery.

Due to the lack of alternative medical treatments without tissue donation, many people face endless suffering. Connie, a recipient of a tendon, reflected with the following:

> We offer an unused blanket to a shivering homeless man, food to a starving child, spare change to a simple benefit drive, or money in the collection plate at church. We give. It's an odd feeling for me to be a recipient of any such gift because I've always been more of a giver, but I feel humbled in knowing someone gave tissue to me when I was in need. (AlloSource, 2021)

These precious gifts are life-changing for the recipients, and therefore missed donation opportunities negatively impact many individuals and their families.

Rationale for Project

In 2009, Alberta enacted the Human Tissue and Organ Donation Act, which states, "When a person dies, the medical practitioner who determines death must consider and document in the patient record the medical suitability of the deceased person's tissue or organs for transplantation" (Adams & McCarthy, 2005; Province of Alberta, 2013); yet there are on average 2000-3000 Canadians on the corneal transplant waitlist (Kramer, 2013). This data suggests that legislation has failed to deliver its desired effect.

According to the Alberta Government (2021), there were 13,791 reported deaths outside of Calgary and Edmonton in 2019. Internal statistics for the two regional hospitals in Lethbridge and Medicine Hat indicate that there were 602 total deaths during that same time frame. Of those 602 deaths, using an identified exclusionary criterion, there were 178 missed tissue donors, and 210 missed eye donors (C. Beninger, personal communication, March 12, 2021). One contributing factor for the low numbers is the lack of notification and referrals for potential donors from Alberta's rural sites. For this project, any hospital outside Calgary or Edmonton will be considered rural.

Problem Statement

There is a critical shortage of available transplantable tissue within Alberta. The lack of a concise referral process and supporting education for the health care professional about donation

potential in rural communities contributes to tissue scarcity. By depriving a family and individual of the option and knowledge about donation, we eliminate the power of choice, which reduces available tissue donation for other individuals in need.

SECTION 2: LITERATURE REVIEW

My literature review on tissue donation included an extensive search of the following databases: CINAHL, Medline, Database, Ebsco, and the grey literature through an online search. I used the following key search terms: tissue donation, tissue donor, organ donation, donor cards, organ and tissue procurement, required organ donation requests, tissue and organ harvesting, tissue banks, AATB, transplant donors, tissue banking, attitudes and nursing staff, and organ donation. I narrowed the search term *tissue* to the various individual tissues, including corneas and skin, in the hopes of locating tissue-specific articles in which I had positive results. I explored the University of Lethbridge library database and the Alberta Health Services Knowledge Resource Centre. The same search terms were entered into the Cochrane database, which yielded zero results.

Many sources come from grey literature, outdated literature, original research, or other countries' studies. I used these less-than-optimal types of literature due to limited articles particular to the topic, demonstrating the lack of research and knowledge specific to tissue donation. I have also included Southern Alberta Organ Donation Program's internal statistics, private conversations, and non-published statistics, related to my identified topic. Other considerations in evidence collection included identifying resources describing the current process and legislation that specifies Alberta's tissue referral expectations.

Knowledge Gap

Organ Donation Overshadowing

Tissue donation is overshadowed by the public-friendly, feel-good stories surrounding organ donation (Siminoff, Traino, & Gordon, 2010). Tissue donation is not well understood by the public; therefore, when HCPs approach next of-kin about tissue donation potential, they are

shocked and often require more support and need time to process (Hogan, Coolican, & Schmidt, 2013; Rodríguez-Villar et al., 2012). There are no media stories about lifesaving tissue transplants, but these surgeries are life-enhancing to those who require donated tissue. Early in the research process, there was a limited number of articles focusing on tissue donation. Many articles referenced organ and tissue donation, yet it was clear the focus was on organ donation (Darlington et al., 2019; Marck et al., 2013).

Similar but Different

There are similar processes shared between organ and tissue donation, including the approach for donation and consent. Albeit the conversation topics are different surrounding the actual recovered organs and tissues, the families must still be approached for consent during a difficult time. Other significant differences include: (a) where and how consent is obtained, (b) the timeline between notification of death and being approached for donation consideration, and (c) the support offered to next of kin. When HCPs approach the family about donation, the patient has been in the Intensive Care Unit (ICU) for a significant period. The family typically has had time to come to terms with the impending death. The family is approached in person and is given space to consider options before making a final decision. Family is well supported by the ICU staff, and that support has a positive impact on the grief process regardless of their decision surrounding donation (Dicks, Ranse, Northam, Boer, & van Haren, 2017).

Any unit can refer tissue donors, and the length of time that the patient has spent on the unit varies. A short inpatient admission will impact the family's relationship with staff; therefore, the lack of support may affect their decision surrounding donation (Hogan et al., 2013). Families are approached about donation when death is either imminent or immediately post-death, a time in which families are most vulnerable. On many occasions, the family is not present at the time

of death. Therefore, the discussion surrounding donation happens over the phone. That lack of support and personal connection with the family can have a negative impact on donation consent, as reported by Rodríguez-Villar et al. (2012). Hogan et al. (2013) research supported these findings, they identified the following critical differences between organ and tissue donation: (a) lack of in-person support for the grieving family, and (b) the limited timeframe in which decisions must be made. These contrasting differences were considered when analyzing articles specific to organ donation and the transferability and applicability to tissue donation.

Lack of Canadian Research

In many articles, the research is based on findings in the United States of America, the United Kingdom, and Australia. Regardless of the article's origin, each identified the growing disparity between the need for organs and tissue and the available supply. Similarities can be drawn for the Canadian system, yet we must be mindful of the differences between a socialized health care system with different provincial rules. The number of donor referrals and donations has no impact on overall hospital funding in Canada, whereas in the United States of America, hospital funding is based on donation referrals (M. Bailey, personal communication, June 14, 2021). These differences may have implications on the transferability of the findings due to the different organizational structures of health care systems and tissue banks.

My search identified many international articles that may also be difficult to extrapolate and evaluate applicability concerning the consent process. Alberta's provincial policy indicates that informed consent must be obtained from the next of kin on behalf of the deceased (Province of Alberta, 2013). Some European countries including Spain have an opt-in or an assumed consent legislation indicating they are a donor unless next of kin states otherwise (Rodrıguez-Arias & Morgan, 2016). The Province of Alberta (2013) states that all "organs and tissue shall be

given as a gift; there will be no reward or benefit" (p.3), regardless if it has been recovered for transplant, research, or medical education. Williams, Finley, and Rohack (2014) identified two unique differences within select European countries. First, small monetary compensation may be given to families to assist with burial services, which positively impacts the number of donors. Second, private tissue banks in the United States buy tissue from hospitals for the sole purpose of research and medical education (Williams et al., 2014). This creates a potential for exploitation of tissue for monetary gain, which may explain some general misgivings toward tissue donation.

Provincial Differences within Canada

All deaths in Alberta have mandatory consideration for organ and tissue donation, yet there are no repercussions if that does not happen. The Southern Alberta Organ and Tissue Donation Program (SAOTDP) is reliant on frontline hospital staff to make appropriate referrals. Currently, no process exists to monitor compliance with the Human Tissue and Organ Donation Act, thereby exacerbating the problem of missed donors.

This process varies across Canada; for example, Trillium Gift of Life (TGLN), located in Ontario, Canada, and British Columbia Transplant Society (BCTS), have a process where all deaths are reported to the organ donation organization (ODO). Each death is assessed for donation potential. Comparing deceased donors per million in 2015, Alberta had 13, British Columbia had 20.5, and Ontario had 19.5 (Canadian Blood Services, 2016). Another difference is SAOTDP in Alberta is a hospital-based donation center, whereas TGLN and BCTS are private identities working under a different business model, which has advantages not available within the Alberta donation programs. These different approaches may explain the difference in donor numbers.

Barriers to Donation

Many barriers make tissue referrals challenging for the HCP. The most significant barriers identified include lack of a clearly defined process, low staff resources, lack of education, staff attitudes and beliefs, and the fear of intensifying family's grief (Gillon, Hurlow, Rayment, Zacharias, & Lennard, 2012; Marck et al., 2013). Time constraints placed on the HCPs and the unit's daily operations are additional barriers, but those are outside of this project's scope.

Lack of a Clearly Defined Process

A questionnaire completed by Gillon et al. (2012) and a cross-sectional questionnaire complete by Weiland, Marck, Jelinek, Neate, and Hickey (2013) identified lack of process or unclear process are deterrents to donation. Without a system outlining the steps for identifying and referring a potential donor, opportunities are missed. Although many other articles did not explicitly identify lack of process as a barrier, it can be inferred from other findings. Jelinek, Marck, Weiland, Neate, and Hickey (2012) indicated that 35% of their respondents did not feel their role encompassed donation facilitation. Gillon et al. (2012) identified one-quarter of their respondents felt that approaching families about tissue donation was not part of the culture within their work environment. Canadian Blood Services (2016) supports this lack of role responsibility, reporting that HCPs feel they do not need to do anything about it if it is not their problem. In other words, somebody else's patient, somebody else's problem. Convincing staff that they are part of the solution needs to be addressed.

Lack of Education and Knowledge

A reoccurring theme evident in the literature is the lack of knowledge surrounding donation. Four articles directly identified knowledge as a barrier to tissue donation (Gillon et al., 2012; Jelinek et al., 2012; Sharp, 2009; Weiland et al., 2013). Three other articles implied that a

lack of knowledge directly impacted the HCP's confidence and competency for facilitating the donation process (Burris & Jacobs, 1996; Collins, 2005; Vorstius Kruijff et al., 2014). Although these articles defined the absence of knowledge as a primary barrier, there was no clear explanation of what specific knowledge is missing. General education that raises awareness about organ and tissue donation is the first step (Elding & Scholes, 2005). In conjunction with an awareness campaign, available information that assists with donor identification and training on how to approach families was frequently discussed (Majumdar, Vuat, & Lambert, 2014; Marck et al., 2013; Potter, Herkes, Perry, Elliott, Aneman, Brieva, Cavazzoni, Cheng, O'Leary, et al., 2017). Without a basic understanding of what constitutes a donor, what to look out for, and what the process is, HCPs are at a disadvantage. This unintentional omission denies families the option to consider donation. Burris and Jacobs (1996) and Collins (2005) support the notion that raising awareness and knowledge around donation translates into increased referral rates. Interestingly, Elding and Scholes (2005) found that raising awareness alone is insufficient to engage HCPs actively. Therefore, other solutions must be considered and included.

Confidence levels directly correlate to the unfamiliarity with tissue donation and directly link to lack of education, according to Sebach and McDowell (2012) and Weiland et al. (2013). The HCP, in most cases, does not feel confident in their ability to discuss donation. Unfamiliarity with a topic makes it difficult to comfortably initiate a conversation for fear of being unable to provide an answer. Extrapolation here is that a solid understanding and knowledge of tissue donation processes, including donor identification and approaching families, are required for competency. Confidence and competency are necessary proficiencies that HCPs require to narrow the gap between the need and availability of tissues (Weiland et al., 2013).

One education deficit identified is the unfamiliarity with exclusionary criteria for tissue donation (Majumdar et al., 2014; Vorstius Kruijff et al., 2014). This criterion is a critical assessment tool in determining donor suitability. Without a clear understanding of this list, many diagnoses, including cancer or a medical examiner's case, can lead to inappropriate declining of a suitable donor. Although the lack of access to current exclusionary criteria has been identified as an educational gap, SAODP does not make this information readily available; the rationale to not fully disclose this information is the frequency at which the regulatory bodies change the criteria. The potential for using outdated exclusionary criteria only exacerbates missed donation opportunities.

Attitudes and Beliefs

Another confounding problem is the HCP's personal beliefs and attitudes surrounding donation. After reviewing multiple articles, knowledge saturation was evident when it comes to attitudes and beliefs. Consistently, the articles indicate that a positive attitude towards donation positively affects the number of organ and tissue donors. One significant limitation worth mentioning about the reviewed articles is that the primary focus is on organ donation, not exclusive to tissue donation. Essential knowledge applicable to the setting of tissue donation can be inferred from the organ donation research. I believe we can safely assume that many of the findings apply to tissue donation. The HCP must still approach the family to inquire about donation possibilities; therefore, attitudes matter.

One interesting finding concerning the importance of education and attitudes is the clear distinction between levels of education and the positive view of donation. According to Araujo and Siqueira (2016) and Roels, Spaight, Smits, and Cohen (2010), nurses and physicians tend to display a positive attitude towards donation compared to those outside of the health care

profession. de Araújo and Braga Massarollo (2013) further expand, explaining that HCPs with higher education expressed a positive attitude because they had a broader understanding of chronic disease and appreciate that donation saves lives. Finally, HCPs who have had previous experiences and exposure have a positive attitude towards donation. This is significant since many donors are cared for in critical care areas by senior staff, so we must be mindful of educating all HCPs regardless of experience outside critical care units.

Roels et al. (2010) made a crucial observation of the importance of staff's positive attitude towards donation concerning the numbers of organ donors and the organs transplanted. Attitudes can be attributed to how staff approach families about donation. The HCP is the "lifeline" for donation: they facilitate the meeting between the donor family and the donation coordinator (de Araújo & Braga Massarollo, 2013; Keel et al., 2019). Without the HCP bridging the gap between the family and coordinator, missed opportunities occur. These connections are instrumental in supporting the family during these difficult times and facilitating the path to donation should they consent. Addressing the importance of these connections is a critical element of staff education and support.

Intensifying Family Grief

A commonly cited reason why HCPs are hesitant to initiate conversations surrounding tissue donation is the concern that this discussion will intensify a family's grief (Elding & Scholes, 2005). These conversations are difficult to initiate as they require an open discussion about "death and dying" (Carmack & DeGroot, 2020). Reluctance is expected when the family is emotional and visibly upset. In some situations, the HCP views the family as an extension of their patient and wants to protect them from harm. The HCPs may make assumptions about how the family is coping with the death and the intensity of their grief, thus impacting the staff's

willingness to initiate difficult conversations (Potter, Herkes, Perry, Elliott, Aneman, Brieva, Cavazzoni, Cheng, O'Leary, et al., 2017). However, Gillon et al. (2012) found that the literature does not support the notion that donation exacerbates grief. In fact, many families find that having something positive come out of a negative experience offers a level of comfort.

Misconceptions

A noteworthy theme is the interrelationship between knowledge and attitude. Lomero, Jiménez-Herrera, Rasero, and Sandiumenge (2017) found that 55% of respondents favored OTD, yet only 36% would agree to donate their loved one's organs and tissues. A systemic review was completed by Mercado-Martínez, Padilla-Altamira, Díaz-Medina, and Sánchez-Pimienta (2015) to understand the perspective of HCP on donation and the process of donation. Their findings indicate that physicians and nurses support the donation of their own organs, but did not hold the same positive stance regarding donating organs and tissues of their loved ones. Although the rationale was not identified in the literature, it can be inferred due to misconceptions surrounding the tissue recovery process. Common findings indicate that some HCPs believe that tissue donation results in disrespect and mutilation of the body (Araujo & Siqueira, 2016; Gillon et al., 2012; Weiland et al., 2013), demonstrating a lack of understanding of the care and compassion shown to the body during the recovery process. HCPs often do not know prosthetics are carefully placed in the body, maintaining structure and appearance so that open casket funerals are possible (van Loo, Rabbetts, & Scott, 2008). This lack of knowledge propagates negative attitudes towards donation.

Organizational Support

Part of the accreditation process for Alberta Health Services includes a statement that donation is part of their strategic plan, values, and mission (Accreditation Canada, 2018).

Canadian Nurses Association (2000) released a fact sheet on organ and tissue donation which states nurses are the “advocates for the family and the patient, and to support donation; they must be aware of organizational policies and procedures concerning donation and encourage responsible decision-making and follow-through" (p.2). The infrastructure to support this initiative is lacking. No policy supports the Human Tissue and Organ Donation Act, indicating that all deaths are considered for donation (Province of Alberta, 2013). Without a policy in place and a means to track missed donation opportunities, it is perhaps an unreasonable expectation for HCPs to alter their routine to include the donation conversation.

Characteristics of a Clinical Pathway (CPW)

Ten articles on the merits of CPW were reviewed, but there were inconsistencies in the definition of a CPW. The definition I found most appropriate is from a Cochrane review article written by Rotter et al. (2010), who define a CPW as a "structured multi-disciplinary care plan that details essential steps in the care of patients with a specific clinical problem” (p.2). Lawal et al. (2016) further expand the definition, noting that a CPW should be considered a process for knowledge translation based on patient-centered care.

A goal of a CPW is to simplify a complex practice, reduce variations, and offer opportunities for evaluation of effectiveness (Kinsman, Rotter, James, Snow, & Willis, 2010; Lawal et al., 2016). To optimize the CPW’s usage, it is critical to have early stakeholder engagement in the project's development to increase its effectiveness and relevance to the practice environment (Baumbusch et al., 2008). Early stakeholder involvement allows the CPW to be tailored to the needs of the care unit while diminishing the variance in practice (Evans-Lacko, Jarrett, McCrone, & Thornicroft, 2010). This allows for the CPW to be customized to the specific needs of the users.

Utilizing a clinical pathway the process will be coordinated by linking evidence and practice (Rotter et al., 2010; Vanhaecht et al., 2012) and is vital in closing the identified practice gap. Normalizing tissue donation will result in a change in the care unit's culture (van Wonderen et al., 2018).

Benefits of a Clinical Pathway

I chose a CPW as my deliverable for this project. Evidence indicates that utilizing a pathway to aid in the decision-making process increases HCP's knowledge and streamlines the process, ultimately altering the end-user's behaviour (Evans-Lacko et al., 2010). However, much of the research has indicated that a significant barrier to tissue donation is the lack of education and understanding (Gillon et al., 2012; Jelinek et al., 2012; Sharp, 2009; Weiland et al., 2013). In my experience within Alberta, this lack of education cannot explain the continued missed opportunities. SAODP provides educational sessions within Calgary regularly, yet we recognize many deaths go unreported. We have found success with a few units where we have identified a donation champion and introduced a clear process/pathway for the HCP to follow. These two interventions have resulted in a change in behaviour within the unit, increasing donations. Research from Milanes et al. (2003) and Marck et al. (2013) identified using a clinical trigger tool as a reminder of the importance of offering options. Education alone has been unsuccessful in narrowing that gap, thereby requiring further interventions.

A common barrier identified is the lack of a straightforward process (Roels et al., 2010; Soratti, Lima, Flores, & Ibar, 2002). The development of the CPW with future implementation plans will assist the HCP in assessing and referring potential tissue donors. The CPW provides exclusionary criteria, the process for contacting and referring donors, and information required to

assist SAODP in making the final determination of acceptance or deferral. Finally, it provides short scripts on how to initiate those difficult donation conversations.

I hope that by utilizing the CPW, providing supportive education and feedback, we will see similar results as van Wonderen et al. (2018) who concluded that developing a flow chart that assisted HCPs in identifying donors had the highest probability of increasing donation numbers. A streamlined dedicated process will increase the HCP's confidence and competency in evaluating and referring potential tissue donors.

SECTION THREE: PROJECT DESCRIPTION

For my master's project, I developed a CPW to help rural HCPs identify and refer potential tissue donors to SAODP.

Project Goals

There are four primary goals for this project:

- Develop a clear and concise clinical pathway that HCPs can utilize to assess tissue donation potential
- Outline the process for contacting and referring potential tissue donors to SAODP
- Offer script options to initiate the discussion about issues donation
- Increase HCPs confidence and competence in assessing and referring potential tissue donors

Purpose of Deliverable

The purpose of my project is to produce a streamlined, easy-to-use CPW to assist the HCPs with their decision-making as to whether patients will be accepted or declined as potential tissue donors. The intention for developing this pathway is to alleviate some of the stress the HCPs have while caring for dying or deceased patients. Initiating the conversation about tissue donation can cause anxiety, and therefore the dialogue is often avoided. Roels et al. (2010) and Keel et al. (2019) both identify that the lack of a straightforward process and guidelines contribute to staff reluctance to offer families the option of donation. Having a resource document in the form of a CPW readily available to staff streamlines a complicated process that can positively impact the number of tissue referrals from rural hospitals.

The CPW directs the HCP to assist in the identification of potential tissue donors. Empowering the HCP to assess for donation potential using this CPW will ultimately increase their confidence and competency in identifying potential donors, translating into increased recovered tissue.

Target Population

The primary focus of my deliverable will be HCPs working in hospitals outside of Calgary. Although Calgary and Edmonton are the only Health Canada-approved organ donation organizations in Alberta, Lethbridge and Medicine Hat are considered satellite recovery centers for eye donation. Bailey, Murphy, and Porock (2011) claim that the nurse is ideal for offering donation options as they have the best opportunity to develop a relationship with the family. My target audience primarily includes nursing staff as they are the ones to which I have access, and with whom I have made previous connections. Throughout this paper, I have utilized the term health care provider (HCP) in the hopes that regardless of designation, someone within the health care team feels comfortable and confident in approaching the family about donation. The goal will be to make the CPW decision tool available to all rural sites.

Ethical Considerations

For this project, I completed a risk assessment utilizing *A Project Ethics Community Consensus Initiative* (ARECCI) interactive tool. This assessment was conducted to evaluate any risk or harm that participants may perceive by participating in the project. At this stage of the project, it was determined that the CPW presented minimal risk to the participants. Before the actual implementation of the CPW, a reassessment should occur.

Facilitating Change with Theoretical Frameworks

In the developmental phase of the CPW, I identified two theoretical frameworks which supported my project. Without a robust theoretical framework to base the development and future implementation of the CPW, it would be difficult to assess the efficacy and efficiency of the project (Douville, Godin, & Vézina-Im, 2014). The theoretical frameworks associated with this project include the Theory of Planned Behavior and the Knowledge to Action Framework. In

combining these two frameworks to guide this project, knowledge translation and the development of professional practices that support tissue referrals and donation should occur (Douville et al., 2014).

"Routine is a concept pertaining to strategically designed behavioral patterns (conscious and subconscious) used to organize and coordinate activities along the axes of time, duration, social and physical contexts sequence and order" (Zisberg, Young, Schepp, & Zysberg, 2007, p. 446). Much of nursing behaviour is routine, and our daily practice revolves around a pre-set routine. Routines facilitate care and assist with the unit's efficiency, but Rytterström, Unosson, and Arman (2011) noted that some routines are invisible: not written down, but standard practice. Whether formal or informal, routines bring an expected level of behaviour and care, which provides stability to the unit and the nurses' day. Collectively, an employee's behaviour directs the unit's routine; therefore, we must change the behaviour to make a tissue referral routine (Gilstrap & Hart, 2020).

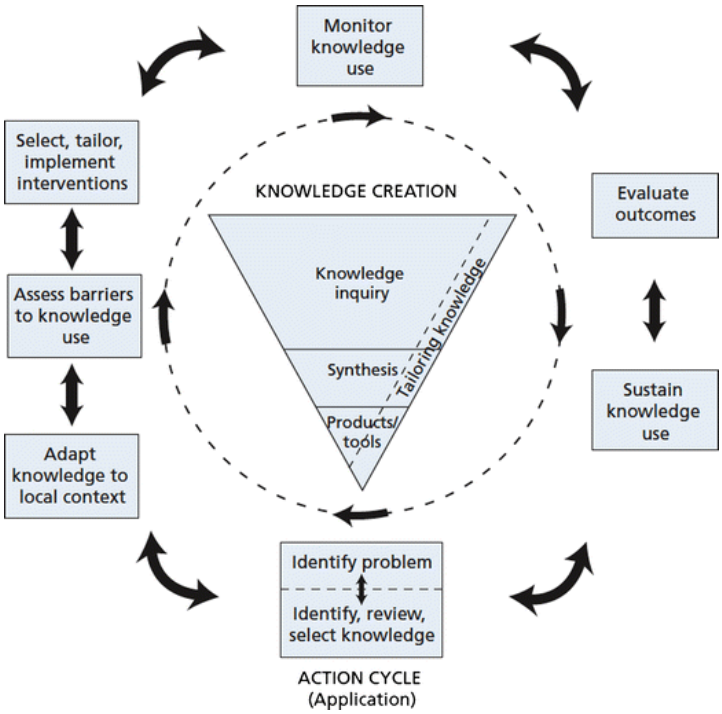
Knowledge to Action Theory

The acquisition of desired knowledge which will translate into an increase in confidence and competence is best supported by the Knowledge to Action Theory (KTA). KTA theory consists of two interrelated components: knowledge creation and the action cycle, as seen in Figure 1. The knowledge creation component captures the development of the CPW to make donation referral easier for the end-user. The goal of KTA is to apply knowledge creation to the action component, which will result in a change of the HCP's attitudes and/or behaviours (Munce et al., 2013). The seven phases of the action component include: identifying the problem, tailoring the knowledge to the local environments, assessing barriers and facilitators,

implementing interventions, monitoring knowledge use, evaluation, and sustainability (Spooner, Aitken, & Chaboyer, 2018).

Another strength of KTA is the utilization of end-users to identify gaps and provide feedback throughout the process encouraging knowledge translation and adapting a new unit routine surrounding tissue donation (Spooner et al., 2018). A systematic review completed by Field, Booth, Ilott, and Gerrish (2014) identified that one of the critical merits of the KTA framework includes the development of educational tools in either the knowledge creation or action phase. Further research needs to be completed to evaluate efficacy.

Figure 1. **Knowledge to Action Framework**



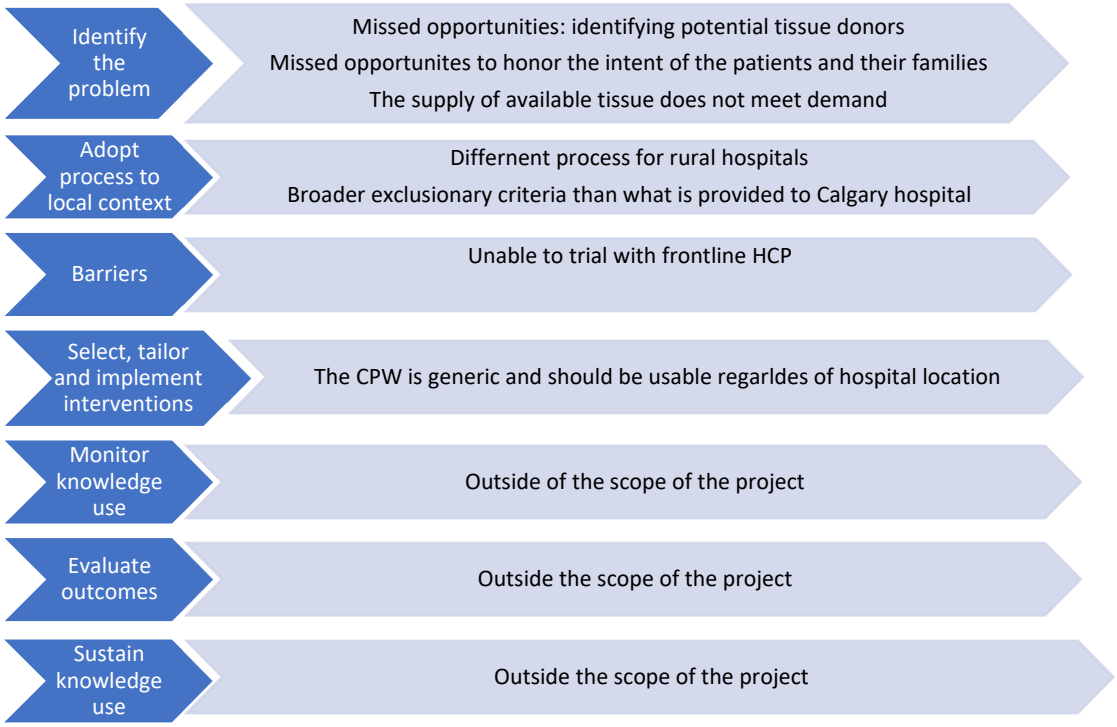
(Munce et al., 2013)

Applying the Seven Steps of KTA

The Registered Nurses'Association of Ontario (2012) outlined the process for applying the KTA framework to project development. The seven steps outlined (Registered

Nurses'Association of Ontario, 2012) guided me as I progressed through various stages of my project development. Due to time constraints, I was unable to complete all seven steps. If knowledge translation occurs, the evaluation of the effectiveness of the CPW would be evident by seeing an increase in tissue referrals. Figure 2 details the KTA framework as it applies to the development of my project.

Figure 2. **Adapted Knowledge to Action Framework**

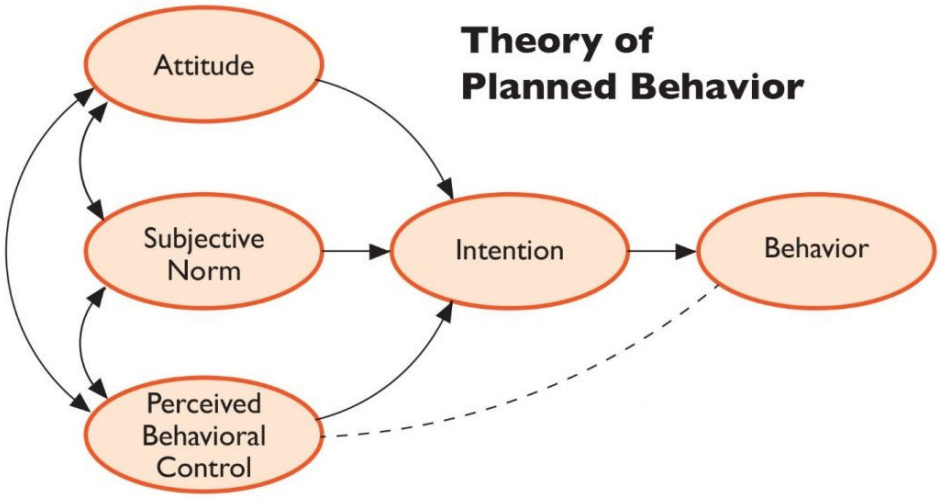


Theory of Planned Behaviour

After reviewing the principles of the Theory of Planned Behavior (TPB) by Ajzen (1991) I determined it was well suited for my project. The first step to increase referrals is to change HCP's behaviour. The primary determinant of behaviour in TPB is the intention to perform the behaviour in question (Steinmetz, Knappstein, Ajzen, Schmidt, & Kabst, 2016). TPB is applying beliefs to behaviour; simply put, a person's beliefs affect their behaviour. Intentions are

motivated by the person's primary focus on "intent"; the intent to make changes (Puffer & Rashidian, 2004). Figure 3 shows how the three integral constructs of attitudes, social norms, and perceived behavioural control (Ajzen, 1991) influence intent and behaviour.

Figure 3. **Theory of Planned Behavior**



Adapted from Ajzen, 1991, p. 183.

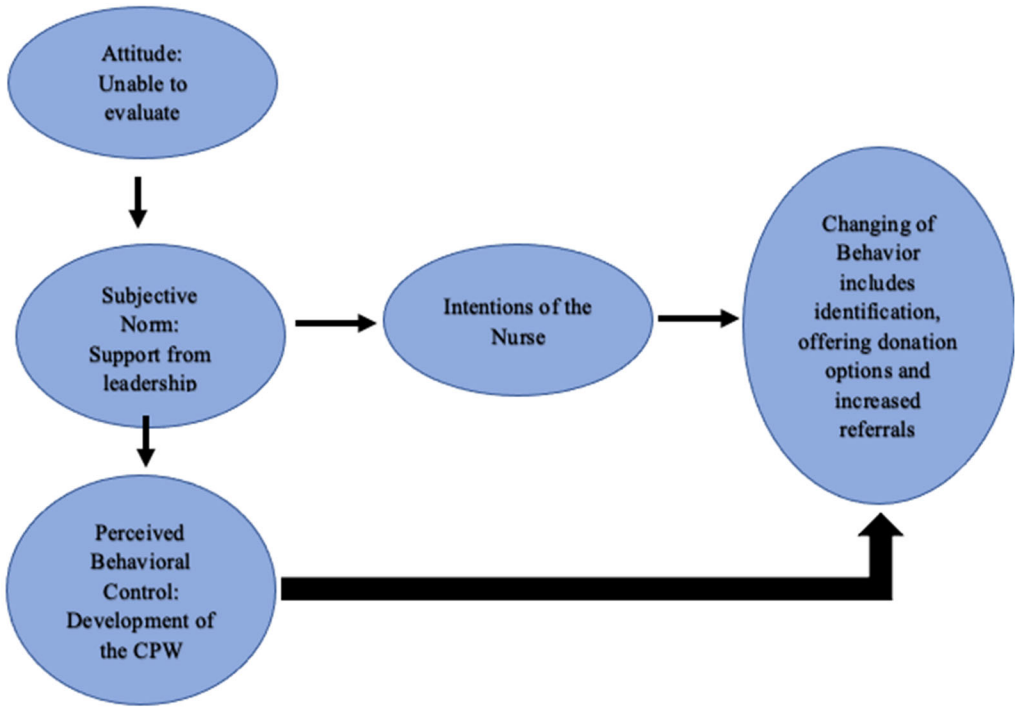
The CPW and supporting educational material must positively impact the HCP's attitude to support behavioural change. The HCP must understand the positive effect tissue donation has on the deceased's family and future recipients. The limited time frame of this project did not allow me to trial the CPW; therefore, I could not assess the attitude of the HCP. Majumdar et al. (2014) indicate that education and a positive experience with tissue donation will improve attitudes toward donation.

Second, changing the unit's subjective norm to include assessing for donation potential is instrumental in changing the behaviour of the HCP. Including the Intensive Care Unit (ICU) leadership team from Chinook Health Region (CHR) was the first step in changing the subjective norm. Their valuable insight of understanding what works for their team and having their feedback and support to develop an implementation plan will help with the success and

acceptance of the CPW. This leadership team will become the facilitators of knowledge translation for the HCPs.

Finally, perceived behavioural control, the ease with which referrals happen will be improved by implementing the CPW. The CPW lays out a straightforward, concise process and directs the HCP to assess and refer potential tissue donors. TPB can be summarized as "the more positive the attitude, subjective norms and perceived behavioral control towards a specific behavior are, the stronger the person's intention to perform it" (Hadadgar et al., 2016, p. 2). I summarized the application of the TPB to this project in Figure 4. When the HCP feels that donation is a good idea, they are supported by management and their peers, and the process is streamlined and efficient collectively; donation referrals should increase.

Figure 4. **Theory of Planned Behavior**



Adapted from Ajzen, 1991, p. 183

Merging the Two Theories

Addressing nursing staff's behaviour and providing them with a CPW should increase tissue referrals. Knowledge translation will be best supported using TPB and KTA to change the clinical practice area's cultural norms and behaviour. A solid theoretical foundation is required to build sustainable change. Nursing is based on routine; therefore, establishing meaningful routines promotes sound and sustainable nursing practices (Rytterström et al., 2011). The combination of the two models will map out a process for tissue referrals. Ultimately utilizing TPB and KTA to "challenge ingrained attitudes and behaviors may assist researchers and clinicians with embedding evidence into clinical settings" (Spooner et al. (2018, p. 96). An increase in knowledge will hopefully translate into an increase in the HCP's confidence in the principles of tissue donation and their competence in offering donation as an option.

Evaluation

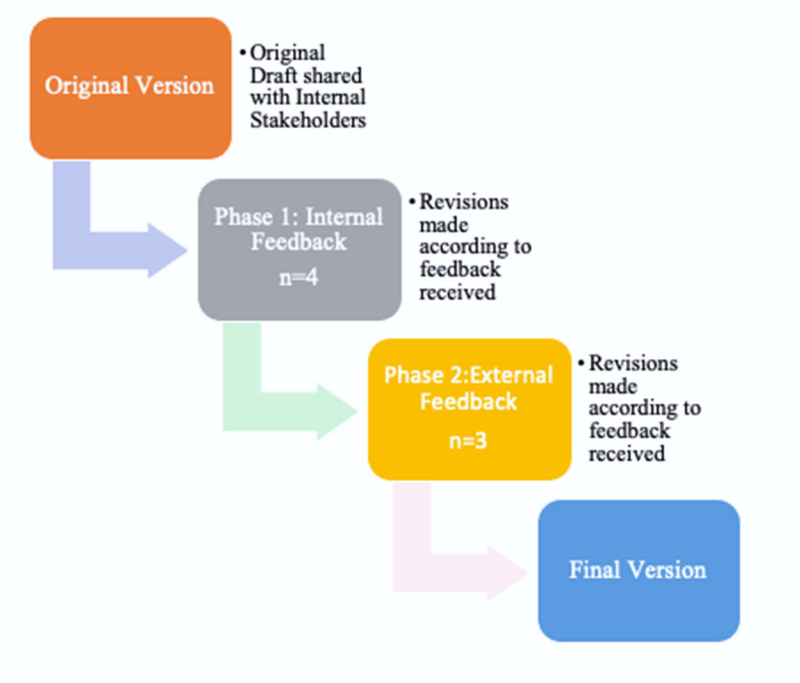
For this project, I utilized a two-phase formative feedback approach (see Figure 5). The two-phase approach was integral in the project development as each "group" of stakeholders viewed the CPW with a different perspective, therefore, eliciting a well-rounded review and assessment.

Phase one involved sharing the CPW original draft with internal stakeholders. The internal stakeholders included current donor coordinators and the program manager. The internal stakeholders applied their expert knowledge about what information would benefit the HCPs. The information I sought from the donor coordinators included compliance with regulatory bodies' regulations; as subject matter experts, they were equipped to review content.

For the second phase, I shared the revised CPW with the external stakeholders, current and previous members of the leadership team of the Chinook Regional Hospital ICU. The

feedback I obtained from the external providers focused on flow, clarity, and ascertaining if the content information provided enough guidance to make appropriate assessments and referrals. This feedback was crucial as they were a group of individuals who were unfamiliar with the nuances and process of tissue donation.

Figure 5. **Phases of the Formative Evaluation Process**



Phase One: Internal Feedback

The CPW original draft was shared with select donor coordinators and accompanied by a qualitative questionnaire with four questions for reviewers to complete/document feedback (See Appendix A). I synthesised and organized the data by identifying reoccurring themes using thematic analysis (Nowell, Norris, White, & Moules, 2017). This analysis was an essential step in the formative evaluation phase because results enhanced flow, clarity, and validating content.

I revised the CPW according to their suggestions and recommendations. Next, I shared the draft of the CPW with the Program Manager of SAOPD, with the same qualitative questionnaire for her input. By including this step it engaged management early to facilitate

approval for a pilot study of the CPW outside the timelines of this project. The manager provided a different lens to view the CPW as she is familiar with donation regulations, yet she has never been involved in approaching family to offer them the donation option. The internal feedback on the CPW was instrumental in improving the draft sent to the external stakeholders.

Overall, the content of the original draft reviewed in Phase I was well-received. The internal stakeholders felt the CPW was easy to follow, visually appealing, and easy to understand. One reviewer commented, "I like that it is explicit on each step, so there are no assumptions that someone innately understands what to do or what is going to happen next" (Anonymous, personal communication, June 03, 2021). I was able to identify areas of improvement according to the feedback and made the appropriate changes. The identified themes include: (a) clarity, (b) additions, (c) flow/design, (d) format, and (e) generic comments (See Appendix B).

Clarity

Clarity was an area in which donor coordinators identified missing elements. For example, in the original draft, the language was vague concerning sepsis and infectious disease. The diagnosis of sepsis was too ambiguous, and the stakeholders felt it would lead to HCPs inadvertently deferring patients who had a historical diagnosis of sepsis but who have received appropriate treatment. By including the term "active," it provided direction as to the current state of sepsis. The wording surrounding an infectious disease diagnosis was also vague; therefore, active was added to the criteria.

Another area that required clarification was the statement surrounding the cost of transportation. Multiple reviewers felt the CPW needing to reinforce that the patient would be transferred to Calgary. Clarification that SAODP would cover the transportation cost associated

with transferring the patient to Calgary and the patient's return to the funeral home of their choice was provided.

Additions

Two reviewers indicated that the CPW should include a script for initiating the conversation about tissue donation. One reviewer commented, “the donor coordinator is there to provide support and coaching regarding the “interest of donation” conversation with families and perhaps even a queue of what to say (Anonymous, personal communication, June 03, 2021). Initiating conversations surrounding tissue donation is difficult due to the sensitivity surrounding death and dying and attempting to have an open discussion concerning the same (Carmack & DeGroot, 2020). The HCP caring for the deceased individual may be apprehensive about the discussion relating to death; this reluctance to approach families will impact the number of tissue referrals. Multiple studies have supported the notion that the anxiety surrounding the death conversation is a deterrent to the initiation of the discussion (Potter, Herkes, Perry, Elliott, Aneman, Brieva, Cavazzoni, Cheng, O’Leary, et al., 2017; Sebach & McDowell, 2012). The stress surrounding the donation conversation may differ according to experience but is not something that ever goes away. A now-retired donor coordinator summed up their experience about initiating the conversation when they stated:

> I think the most nerve-wracking part of the job is the five minutes before you meet the family, you don't know what you are walking into. Once I am with the families, I don't find it stressful anymore; it is the fear of the unknown, and I worry about doing a bad job, so I get worked up… any interaction with us shouldn't increase their grief and so I'm conscientious of not adding to their trauma. (Anonymous donor coordinator, personal communication, January 12, 2018).

The literature and the personal anecdote both support the need for predeveloped scripts. Therefore, they were added to the CPW to assist the HCP with initiating the tissue donation discussion. Predeveloped scripts will hopefully increase the HCPs confidence during the

discussion of tissue donation. The coordinator can also discuss the approach with the staff beforehand.

Since the role of the HCP is to determine donation interest through discussion with family, the detailed conversation about the nuances of tissue donation and obtaining consent will be completed by the donor coordinators. It is not an expectation of the HCPs. Their role is to determine donation interest through a brief discussion and refer the family to the donor coordinator accordingly.

Flow, format, and design

The reviewers had minor suggestions to improve the overall flow of the CPW. These included consistent capitalization of the term "donor coordinators", syntax changes, and minor adjustments to improve the overall aesthetics of the CPW diagram. Other recommendations included rewording subheadings in the CPW to simplify and direct the user to what to expect next. These changes improved the flow and readability of the CPW.

After reviewing the feedback and making the suggested revisions, the CPW was ready for the second evaluation phase. The CPW was then sent to the three external stakeholders, current and previous management team members at a regional hospital in Southern Alberta.

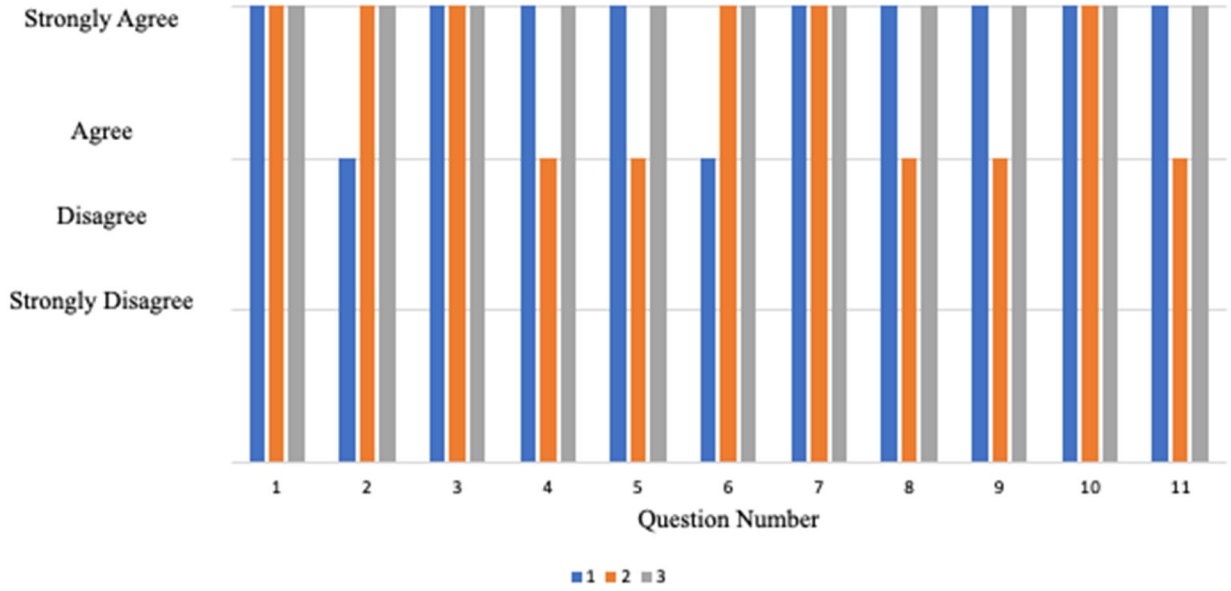
Phase Two: External Stakeholders

I sent **t**he CPW, a short PowerPoint education session, and a feedback form to the leadership team of the Chinook Regional Hospital Intensive Care. The feedback form consisted of a mixed-methods survey including 11 quantitative questions. A four-point Likert scale rating with possible responses including strongly disagree, disagree, agree, and strongly agree was used to assess the qualitative questions, followed by three qualitative questions about potential improvements, areas of concern, and general comments (See Appendix C). I chose a mixed-

method survey as the quantitative responses evaluate the "causality, generalizability or magnitude of the effects (Fetters, Curry, & Creswell, 2013, p. 2134), whereas the qualitative examines the "how or the why" (Fetters et al., 2013, p. 2134). The combination of these two types of feedback was essential for assessing the general usability of the CPW. It also allowed the reviewers the opportunity to provide supplementary feedback or comments that were not captured in the quantitative questions.

Overall, the CPW received a positive response from all three reviewers on the quantitative questions (see Table 1).

Table 1: **External Stakeholder's Quantitative Responses**



The qualitative comments indicated that the information provided is concise, user-friendly and has a great flow. The reviewer's impression on how the flow and content was vital information to obtain; Evans-Lacko et al. (2010) outline concise language, content applicable to the topic, and measurable outcomes are critical criteria for the unit acceptance of a CPW. All three of the reviews indicated that they strongly agreed with the content and logistical flow of the CPW, thereby increasing the likelihood of successful implementation of the CPW. One of the reviewers

indicated that " I believe the CPW is very user-friendly, concise, and covers the relevant "need to know" information" (Anonymous, personal communication, June 25, 2021).

Question six aims to assess whether the information outlined the process for notifying the SAOPD. One reviewer indicated " agree" as their rated response, and expanded in the qualitative section that the method of contacting SAODP was straightforward. Yet, they perceived the responsibility of referral to SAODP as that of a physician. Modifications were made to indicate that any HCP can refer a potential donor, including RNs, social workers, and physicians. In addition, the supporting education session that SAODP will deliver before implementing the CPW will emphasize that anyone can and should refer appropriate tissue donors.

Question 10 provided valuable insight as to the leadership support this project would receive moving forward. For knowledge translation to occur, multiple factors must be considered, including the unit's culture, the practice environment, and most importantly, leadership support and adequate resources (Kueny, Shever, Lehan Mackin, & Titler, 2015). All reviewers stated that they would support and implement the CPW.

To assess the potential barriers that would impede the usage of the CPW, I asked reviewers to explain their response to question 11. Two of the three respondents strongly agreed that they believed staff would utilize the CPW upon implementation. One reviewer indicated the CPW would "empower" the nurse by encouraging them to be active participants in the organ and tissue donation process. Another reviewer stated that other available resources concerning tissue donation were too convoluted and difficult to locate the information required to make a referral. This CPW was clear, concise, and "very user friendly."

The final reviewer commented that this "will be a unit culture change," which ties in nicely with my theoretical frameworks. Having the reviewer identify culture change as a concern

solidifies that TPB is an appropriate theory and meets two criteria. First, leadership support will encourage the changing of the subjective norm. Second, the CPW assists with perceived control steps, both integral in accepting the change in practice and the unit's culture.

Further Clarification

Clarity was the only identifiable theme from the external feedback. Interestingly, the two criteria that required clarity were the same two that internal stakeholders identified as problematic. These two areas were the diagnosis of active sepsis, and the other was the diagnosis of active infectious disease.

I had updated the term to “active sepsis” from the original version, hoping that including the term active would provide more clarity. The reviewer’s concern indicated that many patients admitted to ICU were admitted with a documented diagnosis of sepsis. They wanted clarification as to when a diagnosis of sepsis is no longer a threat. The second area of concern was the criteria surrounding an active infectious disease. This specific criterion was too vague and, therefore, would be open to interpretation and confusion for the staff.

I took these concerns back to the SAODP staff and asked for their assistance in adding clarity to these two concepts. To further clarify the sepsis exclusionary criteria, I added the donor coordinator's definition to assess sepsis, which will help clear up the vague statement. To clarify the infectious disease criteria, I added the word “communicable” and provided three potential diagnoses that would fall into this category. The intention is to decrease the incidences of interpretation and confusion. Table 2 demonstrates the revisions these two specific exclusionary criteria underwent through the feedback process. The final version adds clarity and direction and, therefore, should reduce confusion and inappropriate deferrals.

Table 2: **Evolution of Exclusionary Criteria**

Original	Following Internal Feedback	Following External Feedback
Does the patient have a documented diagnosis of sepsis?	**Does the patient have an active diagnosis of sepsis?**	**Does the patient have an active sepsis or septic shock as evidenced by bacteremia, fungemia or viremia within 7 days of death?**
Does the patient have a documented diagnosis of infectious disease i.e., HIV, Hepatitis?	**Does the patient have an active documented diagnosis of an infectious disease i.e., HIV, Hepatitis?**	**Does the patient have an active documented diagnosis of a communicable infectious disease i.e., HIV, Hepatitis or Syphilis?**

The two-phased feedback process worked well for this project as it provided an opportunity for the SAODP staff's participation in the development of the CPW. Their involvement was significant as this will be a change in practice within the department. Having their understanding and support will ease the transition to the new process for tissue referrals. Including the external reviewers brought an outsider's perspective; someone who is not as familiar with the donation process. They were able to assess the content and flow, and usability of the CPW. The collation of suggestions and multiple revisions has resulted in a CPW ready for implementation (See Appendix D). The feedback from the internal and external stakeholders validated the development of the CPW and confirmed that it will be a valuable resource for HCPs.

SECTION FOUR: REFLECTIONS

Project Development Process

The goals of my project included (a) developing a clear and concise clinical pathway for HCPs to utilize to access tissue donation, (b) outlining the process for contacting and referring potential tissue donors, (c) offering sample scripts on how to initiate conversations with families about tissue donation and (d) increasing the confidence and competency of HCPs in their assessment and referral of potential donors. I was successful in achieving three of the identified goals for this project. The first three goals were achieved following multiple revisions and incorporating valuable feedback from my internal and external stakeholders. The external reviewers validated the attainment of the first three goals, as evidenced by their feedback responses to these targets.

The last goal, increasing the confidence and competence of the staff, cannot be measured until the next phase of this project. According to Sebach and McDowell (2012) the implementation of a tissue referral process and providing education focusing on "creating meaning out of loss, and how tissues can save and enhance lives" (p.65) will increase the confidence of those initiating the donation conversation. Utilization of the CPW, which clearly defines the process, and offering the supplemental education session (modification of SAODP PowerPoint presentation *Tissue Referrals from Rural Hospitals*, received via personal communication, June 01, 2021 [see Appendix E]), should positively impact the confidence and competency of the HCPs.

Attaining these three goals is the first step towards increasing tissue donation referrals from rural hospitals. With a successful implementation and a change in culture surrounding donation, we can achieve the overarching vision of my project, honouring the indicated intent to

donate for all Albertans who have signed the AOTDR. By offering all families the option to consider tissue donation, we hope to equalize the required tissue supply and demand.

Future Direction and Implications

The CPW is complete and ready for implementation, but the project concluded before a pilot test could occur. The tentative plan includes the SAODP staff delivering the PowerPoint education session, which provides information on tissue donation. It will also include information on the usage of the CPW.

Offering family-centred care means a hospital must be willing and able to provide continuity of care through all phases of life, including death. Death remains a topic that many health care professionals are hesitant to discuss, but is something that we encounter in our chosen profession. The Canadian Nurses Association encourages and supports the ongoing education of nursing staff. Hence, they have the knowledge and understanding of organ donation and transplantation and the suitability of organs for donation or referral (2000). With education and support, the hope is that the CPW will increase the confidence and competence of the HCPs. Fostering an environment that supports tissue donation will increase the likelihood of changing the unit's culture to one that honours the intent of many Albertans.

Lessons Learned

For the past year, I have been formulating, researching, developing, and revising this CPW. I have been involved with organ and tissue donation for the previous 12 years and felt that with my knowledge and experience, there would be minimal learning on my end. I erroneously believed this project would quickly come together, and my learnings would be more about project management and less about donation. Interestingly, the breadth and depth of knowledge I

gained regarding donation, specifically for those less familiar with the topic, will make my approach to educating them different and more inclusive in initiating those difficult discussions.

Two significant lessons I learned during this project include (a) the importance of recruiting appropriate stakeholders and (b) the new roles and responsibilities that encompass a master's prepared nurse. Other minor learnings include the process of collecting feedback, including questions and approaches and the importance of time management.

Brenner's Novice to Expert Theory

A valuable and unexpected learning I had during the development of the CPW is the different lenses people with various levels of experience used to evaluate the tool. Benner's Novice to Expert Model indicates there are different levels of learners, and at each learning stage, there are distinct insights and abilities (Benner, 1982). This was evident during the internal peer review. The subject matter experts did not identify the lack of providing scripts to initiate the conversation surrounding donation, whereas two reviewers who had never worked as donor coordinators both mentioned this as a deficit. As a novice stage nurse without confidence or experience, they are unable to "transfer new knowledge and skills to their applications when they [are] face[d] with unique situations." (Ozdemir, 2019, p. 1280). The expert nurse or the subject matter experts have critical thinking skills and experience enabling them to have the conversation freely, and therefore would not see it as a potential barrier. This broad vision allows the expert learner to be able to sense the needs of the grieving family. Ozdemir (2019) says that the "insights and accomplishment" of the expert learner are instrumental in the development of health initiatives. The insight of subject matter experts was invaluable, as was the view of the novice learner, which supports the importance of the inclusion of all levels of learners in the development of health care initiatives.

Insight of a master's prepared nurse

I have grown as a student throughout my educational journey and, more importantly, as a nurse. I found myself using knowledge that I have acquired over the years in various situations. It allowed me to look at situations differently while providing me the knowledge and skillset to evaluate the issue, formulate a plan, and discover a solution that aligns with evidence-based practice.

One goal of the Canadian Association of Schools of Nursing (2015) is to "articulate advanced nursing perspective to optimize care" (p.15). Throughout my project development, I used these advanced research skills, collaboration, and communication to address an identified gap in nursing practice. The growth I have seen in myself and my ability to develop a project and see it to fruition has been an amazing experience. This sense of accomplishment has reinforced the notion that I must seek opportunities to enhance nursing knowledge and competency within the nursing profession (CASN, 2015).

I have observed many nursing leaders over the years, and witnessed how a master's prepared nurse uses communication as an effective tool to inspire others to improve and succeed. This skill is evident in their oral communication skills and their effectiveness in providing written feedback. Throughout my educational experience, I have become more proficient and confident in my writing abilities and giving feedback on other work projects.

I was fortunate to be surrounded by colleagues in the office who were also attending university, and they were great sources of support and encouragement. They repeatedly demonstrated a higher level of understanding and were able to analyze and critically view projects. They understood the vulnerability in sharing the draft versions of my CPW. That knowledge made it easier to share my work, and I knew their comments would improve the

CPW rather than judge. They had made similar sacrifices as I, resulting in a collective understanding of experiences that can only be appreciated by those who have pursued an advanced degree. This inspires me to show the same professionalism and guidance to other nurses as they seek further education or advance their professional career.

The Canadian Association of Schools of Nursing (2015) outlines that a guiding principle for a master's prepared nurse includes the ability to "create a culture of learning in a focused area of nursing practice that fosters a spirit of inquiry" (p.17). This principle aligns with the premise of my CPW and supporting theoretical frameworks. The intent is with the implementation of the CPW it will support a change within the unit's culture and assist the HCPs in understanding the critical role they play in the tissue donation process.

The confidence in my ability to use research to guide my practice and use this newfound information for decision-making has become pivotal in my development as a master's prepared nurse. I intend to model professionalism and integrity, and continue to seek ways to improve the care we provide. This educational experience has prepared me to assume the role of a professional mentor and leader of advanced clinical practices within the nursing profession.

Clearly defined feedback plan

I had a poorly developed feedback plan concerning my internal stakeholders, which was problematic. Although my peers were aware of my project and we had numerous discussions concerning the project, I was cavalier about obtaining their feedback. I sent the CPW and evaluation tool to four individuals without a specific due date included. However, according to my timeline, I had allocated a short window for their feedback. As the deadline approach and I had not received any official feedback, I sent a reminder asking for their input. As suggested revisions trickled in, I was disappointed with the lack of critical feedback. One reviewer made

changes directly to the CPW, and another reviewer's feedback was an email indicating "it looked great" (personal communication, June 04, 2021). Sending a PDF version of the CPW may have encouraged the reviewers to use the feedback form. The lack of identifying any critical oversights reaffirmed that I was on the right track. Being more upfront with my expectations would have prevented unnecessary confusion.

The current COVID situation and the redeployment of the SAODP staff during the previous few months also impacted my ability to collect feedback. The short timeline did not allow staff more than one week to provide their input. This was exacerbated due to the SAODP staff working ICU or being on call. There were multiple donor cases during this time, so staff could not adequately do a thorough review of the CPW. Although this was unavoidable and unprecedented, it demonstrates the importance of time management when seeking feedback.

Developing the feedback questions was challenging as I was unsure what information I would require to improve the CPW. I lacked the insight to link the feedback questions to my theoretical frameworks. Including those questions would have allowed for a deeper understanding of how effective the CPW would be, and provided me with vital information about the knowledge gap and how best to support knowledge translation. I was delighted to see one reviewer comment on the necessary “culture change” that would need to happen so that the HCPs would regularly use the CPW.

Individually these oversights would not amount to much, but collectively they increased the anxiety associated with the project. As a novice project manager, I recognize how easy it would be to derail a project without being aware of the importance of time management. If timelines were not enforced, the potential repercussions on the project's forward motion could be

detrimental. I was fortunate to overcome my missteps and remain on track, obtaining beneficial feedback from my peers, allowing me to move the project to the next review phase.

Self-reflection

As I reflected on developing this project, I asked myself poignant questions to evaluate how I felt the project evolved (See Appendix F). Assessing and identifying the issue and formulating a solution was simple. After years of working within the organ and tissue donation organization, the lack of available tissue was evident. Reviewing internal statistics showed a disproportionally low level of tissue referrals from outside of Calgary. Knowing process logs and algorithms currently utilized within SAODP and with my previous bedside experience, a CPW seemed appropriate to resolve the low referral rates. The challenges included the literature review to locate evidence that identified and supported my claims. With a short supply of relevant literature, I was pleased to see how quickly I discovered literature supporting the knowledge gap and evidence suggesting a CPW would be an appropriate solution.

Overall, I am happy with how this project developed. I had a clear idea from the onset of what information I would include on the CPW. What evolved were the design and layout. For future project work, I would ideally like to have time to trial the project before producing a final deliverable, and I would include more explicit directions to stakeholders surrounding feedback. Considering this was my first project, I am pleased with how the CPW progressed through the various stages and am satisfied with the final project.

Conclusion

There are two driving forces when it comes to the benefits of tissue donation. One is the recovered tissue and the recipient. Second is honouring the intent of many individuals who have decided that they want to donate and allowing the family the opportunity to fulfill the last request

of their loved one. Author Daniel Mark Extrom (2014), eloquently writes a message from an organ donor to their family:

The Legacy

I loved my life and had great plans
for dreams I would pursue.
I loved to learn and loved to work –
so much for me to do.

But plans and dreams – it always seems –
are subject to delay,
for life can bring surprises
that take us from our way.

I didn't mean to leave so soon;
so much was left undone.
We always think that later's there:
it comes with every sun.

I wanted to accomplish much –
perhaps do something great.
And though I have now moved along,
I've learned it's not too late.

My family loved me very much,
and taught me well to share.
And I am able yet to give,
though I am not there.

There is a special part of me
that helps someone to live.
I've done something great, you see:
I've found a way to give.

So a part of me still sees the sun,
in a different way.
My legacy gives life, you see,
each and every day.

So mourn me not, my family:
my spirit's still in you.
The lesson that you taught so well
gives work I love to do.

I'm grateful I can help someone:
I've left a legacy
so someone else can yet live on
with some help from me.

The work I do now helps to hold
a family together.
Keep the memory of my gift
in your hearts forever.

I hope that you find comfort
in my memory:
The work I do helps someone live –
my greatest legacy.

My project aims to close the gap between the current practice and the desired outcome of offering all families the option of donation (Burris & Jacobs, 1996). To accomplish this, we must change the behaviour and culture of the unit, and the first step is by providing an easy-to-use CPW to assist the HCP in identifying and referring appropriate donors. Multiple HCP sources identified a lack of confidence in their ability to ask about tissue donation (Kennedy & Farrand, 1996; Lomero et al., 2017). The hope is that with a straightforward process and an increase in understanding surrounding tissue donation, HCPs will feel confident in their abilities, increasing tissue referrals.

By missing donation opportunities, we exacerbate the critical shortage of tissue and deny the patient and their families the right to choose donation as an option. HCPs must recognize that they "are not forcing the family into an unexpected situation" (p. 289); they are merely offering their right to make a choice (Niday et al., 2007).

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APPENDIX A: INTERNAL REVIEW FEEDBACK FORM

Date of Review:

1. Does the pathway clearly outline the steps for a rural tissue referral? If not, what steps need to be added or removed?

2. Does the Clinical Pathway collect the relevant information that will assist you in determining donation potential? If not, what should be included or excluded?

3. Does the document:
    a. Flow in a clear and concise manner?

    b. Is clear and easy to understand?

4. Other comments or suggestions?

APPENDIX B: THEMATIC ANALYSIS

Clarity	*Additions*	*Flow/Design*	*Format*	*Generic*
Include Active before Sepsis in Criteria 1	Include Alzheimer's in Criteria 3	Retitle the heading at the top of page two, "Next Steps"	Consistent Capitalization of donor coordinator	Flow is good
Include Active before infectious disease in Criteria 2	Provide a time range of 15-30 for the length of time the donor coordinator will take to review the chart	Retitle the next heading to "Accepted tissue donation referrals"	Minor Syntax Changes	Easy to follow
Exchange the word prostitution for commercial sex trade worker	Include that the donor coordinators will support the staff with how to approach the family about tissue donation Two reviewers suggested adding in a script or examples of how to initiate the conversation	Increase the size of the decline box to match the size of the criteria		Clear and concise
Succinct title	Eye bank recovery can occur in areas surrounding Lethbridge and Medicine Hat	Final Square on the front page; reword to patient may be eligible for donation, proceed to next steps		Easy to understand
The program will only cover the "costs" associated with transporting the patient to Calgary and return to the				

funeral home of their choice. Two reviewers indicated that the donor coordinator will notify them of a decision to accept or decline the donor		

APPENDIX C: EXTERNAL REVIEW FEEDBACK FORM

Thank you for agreeing to review my Master of Nursing project titled "Meeting the Need: Developing a Clinical Pathway to Assist in Increasing Tissue Referrals from Rural Alberta." The purpose of the project is to increase tissue referrals from rural hospitals. I have developed a simple clinical pathway to assist frontline workers with assessing and referral of potential tissue donors. My primary focus is creating the clinical pathway, but I believe that a short education session on tissue donation would be beneficial at the time of implementation.

For this review, I have included the education session that the SAODP staff will present to unit nursing staff and instructions on using the newly developed clinical pathway.
It will take you approximately 30 mins to review the documents and complete the feedback form. Your feedback will be used to improve the documents, and all information collected will remain confidential.

Please complete the questions below concerning the Clinical Pathway (CPW). Please indicate below how strongly you agree or disagree with each statement. Please have all responses returned to me no later than **June 18, 2021.**

	Strongly Disagree	Disagree	Agree	Strongly Agree
1. The overall format of the CPW flows logically from start to finish	☐	☐	☐	☐
2. The information in the CPW is clear and concise?	☐	☐	☐	☐
3. The CPW is easy to read and follow?	☐	☐	☐	☐
4. The CPW provides enough information to assess patients for donation potential?	☐	☐	☐	☐
5. The information provided outlines the process for identifying potential donors?	☐	☐	☐	☐
6. The information provided outlines the process for notifying the donor coordinator?	☐	☐	☐	☐
7. The ICU nurses will feel comfortable using the CPW for a deceased patient to assess for donation potential?	☐	☐	☐	☐

8. The suggestions on how to approach the family concerning tissue donation are helpful?	☐	☐	☐	☐
9. The CPW will be helpful for staff to be compliant with the Human Organ and Tissue Donation Act, which indicates that all deaths must be considered for the suitability for organ and tissue donation?	☐	☐	☐	☐
10. The CPW should be implemented to increase tissue referrals in rural hospitals. Is this a document that would be supported and implemented within your department?	☐	☐	☐	☐
11. The staff will use the CPW to assess and refer patients for donation potential?	☐	☐	☐	☐
Please explain your response to question 11.				

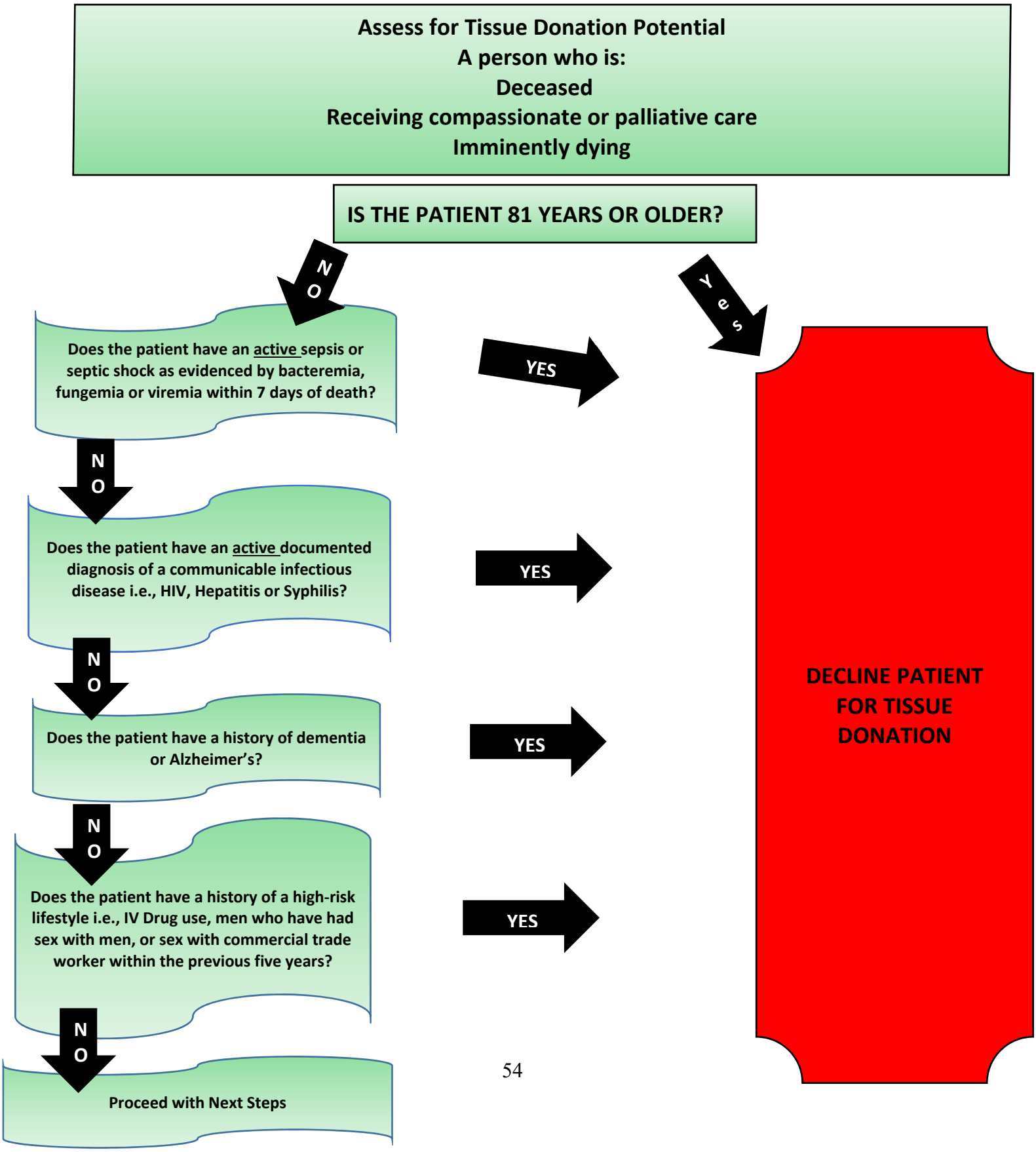
What should be added to the CPW to improve the document?

What should be deleted from the CPW to improve the document?

General Comments?

APPENDIX D: TISSUE REFERRAL CLINICAL PATHWAY

Clinical Pathway for Tissue Donation



Next Steps

1) **ANY** Health Care Provider can refer potential tissue donors to SAODP including Registered Nurses, Social Workers and Physicians.

2) Call the Southern Alberta Organ and Tissue Donation Program at 403-944-1110 and ask for the Donor Coordinator on call.

    a) This call back may take up to 15 mins for the Donor Coordinator to return your call

3) Provide the Donor Coordinator with the following information:

    a) Patient Name
    b) DOB
    c) ULI number; and
    d) A brief medical history

4) The Donor Coordinator will review the patient information to assess for donation eligibility. **This consult may take 15-30 minutes.**

5) The Donor Coordinator will notify you of the decision on donation potential or if the patient was declined.

    a) If the patient is a suitable donor, you can approach the family regarding their interest in tissue donation. If yes, connect the family to the Donor Coordinator.
        i) The Donor Coordinator will be there to support you with this conversation.
            (1) See How to Approach the Family on the next page for a few simple suggestions

6) If the family is interested in donation, connect them with the Donor Coordinator.

    a) The Donor Coordinator will speak with the family to obtain consent and complete a medical social history questionnaire.

Accepted Tissue Donation Referrals

- Reinforce that tissue recovery takes place at the Foothills Medical Centre, and the patient will need to be transferred to Calgary.
    - The Donor Coordinator will work with you and the family to make all transportation arrangements.
    - The costs associated with transporting the patient to Calgary and return to the funeral home/crematorium of choice will be covered by the Southern Alberta Organ and Tissue Donation Program.
- **Complete the Physical Exam:** This form will be provided to you by the Donor Coordinator.
    - This basic physical assessment provides the Donor Coordinator a brief overview of the patient to determine any evident risk factors.

- Eye donation: If the donor is in Lethbridge, Medicine Hat, or the surrounding area, the eye recovery typically can be completed there.
- Elevate the head of the bed 30°
- Apply saline-soaked gauze to both eyes

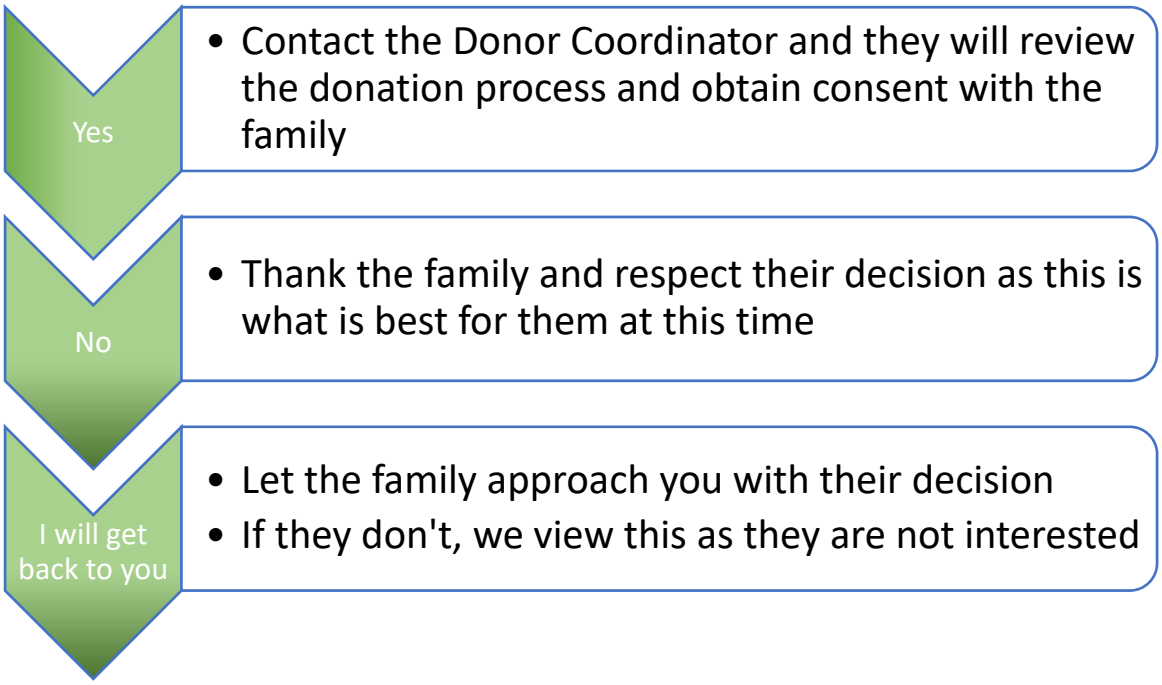
- **Fax a copy of the patient's chart to 403-592-4274**

How to Approach the Family?

Approach family and offer condolences on the loss of their family member. There are a few potential ways to approach the family. Here are a few suggestions:

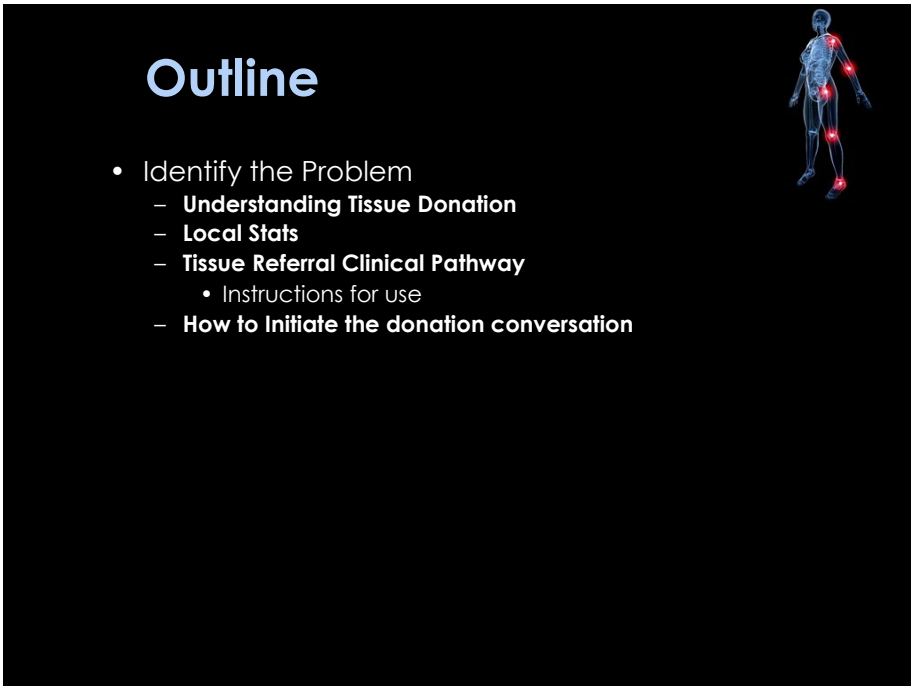
- Would you like more information on tissue donation?
- Has your family member ever discussed their intent to donate organs or tissue?
- Did your3 family member sign the Organ and Tissue Donation Registry?
- Do you believe your family member would like to donate their tissue?

If the family responds:



APPENDIX E: TISSUE DONATION EDUCATION SESSION

(Modification of SAODP PowerPoint presentation,
received via personal communication, June 01, 2021)



Who are We?

Southern Alberta

Organ & Tissue Donation Program (SAOTDP)

Southern Alberta Organ Donation Program	Southern Alberta Tissue Donation Program	Lions Eye Bank
Sometimes referred to as "HOPE" Deceased organ donation	Deceased tissue donation Living bone donation	Ocular donation

Alberta Supports Donation

- In 2009 the Alberta Human Organ and Tissue Donation Act was established indicating that all deaths must be considered and assessed for the suitability for organ and tissue donation
- In 2014 the Alberta Organ and Tissue Donation Registry was created to allow all Albertan's the option to record their intent to donate their organs and tissues

Alberta Supports Donation

- The donor coordinator will check the registry for every tissue referral
  - Our goal is to make every attempt to honor Alberta Legislation and the registered intent of the individual

Our Team Available 24/7

- Donor Coordinators
  - 9 RN Donor coordinators
  - Your point of contact for all inquires and referrals
- Lions Eye Bank
  - Specially trained technicians
  - Satellite recovery staff in Lethbridge and Medicine Hat
  - May be able to go to rural centers to recover eyes
- Tissue Program
  - Tissue recovery ALWAYS occurs at Foothills Medical Centre in Calgary

Benefits to Donation

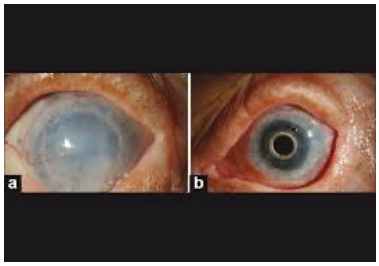
- Donors
  - Respect their intent to donate
  - Leave a legacy
- Families
  - Family Centered Care
  - Opportunity to honor a loved one's intent
  - May help with grief and healing
- Recipients
  - Tissue donors can improve the lives of up to 75 recipients

Ocular Donation

- A single eye donor can restore sight for two individuals and provide sclera for up to eight others
- Corneal transplants occur within two weeks of donation, sclera donations within a year
- If the corneal tissue is not suitable for transplantation it can be used for research or education

Corneal Transplant

- Before and after a viral infection treated with a transplanted cornea



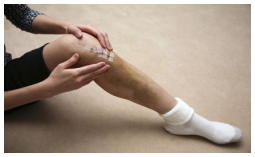
Tissue Donation

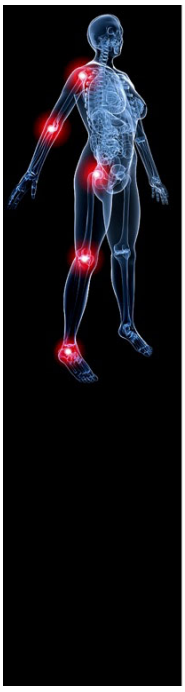
Skin is used for grafting in burn patients, and other reconstructions

Bone Tissue is often processed into cancellous product that is used in numerous orthopedic surgeries

Heart valves are the most in demand tissue often used for children with valve dysfunctions

Ligaments, tendons, and cartilage are used in numerous orthopedic surgeries





Facts you should know…

- Ocular and tissue donation can be considered for any death in the hospital/hospice or at home
- The donation process should be initiated as soon after death as possible- especially in rural centers as it will take time to organize
- Ocular tissue should be recovered within 6-8 hours after death.
- Tissue recovery must occur within 24 hours after death
- Tissue and eye donation does not interfere with funeral arrangements
  - Or the ability to have an open casket funeral

Myths

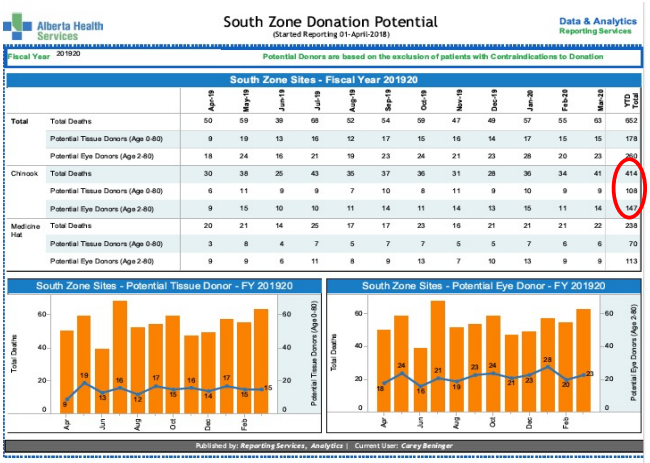
- Cancer is a contraindication to tissue donation?

  FALSE

- Signing the registry is all the consent you need?

  FALSE

Local Stats



Alberta Health Services

South Zone Donation Potential

(Started Reporting 01-April-2018)

Data & Analytics
Reporting Services

Fiscal Year 201920

Potential Donors are based on the exclusion of patients with Contraindications to Donation

South Zone Sites - Fiscal Year 201920

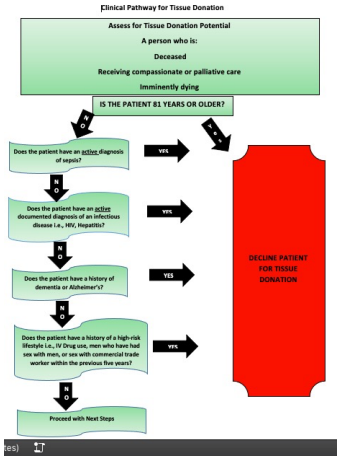
		Apr-19	May-19	Jun-19	Jul-19	Aug-19	Sep-19	Oct-19	Nov-19	Dec-19	Jan-20	Feb-20	Mar-20	YTD Total
Total	Total Deaths	50	59	39	68	52	54	59	47	49	57	55	63	652
	Potential Tissue Donors (Age 0-80)	9	19	13	16	12	17	15	16	14	17	15	15	178
	Potential Eye Donors (Age 2-80)	18	24	16	21	19	23	24	21	23	28	20	23	260
Chinook	Total Deaths	30	38	25	43	35	37	36	31	28	36	34	41	414
	Potential Tissue Donors (Age 0-80)	6	11	9	9	7	10	8	11	9	10	9	9	108
	Potential Eye Donors (Age 2-80)	9	15	10	10	11	14	11	14	13	15	11	14	147
Medicine Hat	Total Deaths	20	21	14	25	17	17	23	16	21	21	21	22	238
	Potential Tissue Donors (Age 0-80)	3	8	4	7	5	7	7	5	5	7	6	6	70
	Potential Eye Donors (Age 2-80)	9	9	6	11	8	9	13	7	10	13	9	9	113

South Zone Sites - Potential Tissue Donor - FY 201920

South Zone Sites - Potential Eye Donor - FY 201920

Published by: Reporting Services, Analytics | Current User: Carey Beninger

Clinical Pathway Page 1



Clinical Pathway Page 2

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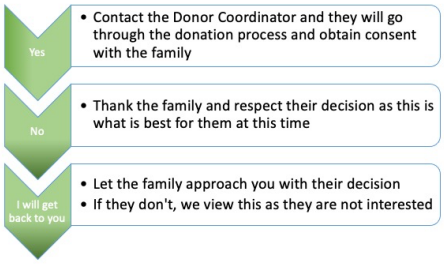

Offering the Option of Donation

- Can be difficult to initiate the conversation
- Remember that you are informing the family their option to donate, and that the decision is ***theirs*** to make
- Calling the donor coordinator prior to offering the option may be helpful, the coordinator can pre-screen the patient and check to see if the individual has registered their intent
  - This is helpful as family is aware of what their loved one wanted
- The Coordinators will give real time advice on how to discuss donation

Take Home Messages…

- Every death under the age of 81 can be considered for tissue donation
  - Follow the steps as outlined in the Clinical Pathway
- Paging the donor coordinator prior to or as soon after death is important due to limited time frames for recovery
- Donor coordinators are available 24/7 and will assist you throughout the donation process

References

This presentation is a modified version of the Southern Alberta Organ Donation Program "Tissue Referral for Rural Hospitals" PowerPoint presentation (Personal Communication Jun 01, 2021).

APPENDIX F: SELF-REFLECTION

Question?	Response
What went well?	▪ The required information to be included on the CPW was clear from the inception of the tool ▪ The literature supported the concept of the clinical pathway as a tool to increase donation rates ▪ Time management a. With my work and call hours, I was able to anticipate what I could accomplish within heavy work weeks accurately
What did I enjoy most about the process?	▪ Working with my peers and receiving their critical appraisal and feedback ▪ Validation of the necessity of the CPW a. Receiving feedback from my stakeholders that they feel the tool will be helpful ▪ In hindsight, I can see the growth of the project. However, I was initially being intimidated by the project's magnitude to seeing it through to completion
What was challenging?	▪ Working backward a. I started with the deliverable idea and had to locate literature that supported my vision ▪ Limited research on tissue donation within Canada a. Extrapolation of relevant findings which would support my work was time-consuming

What did not work?	▪ Providing a word document for review a. Changes were made directly to the document
What could I improve for next time?	▪ Trial the CPW with front-line workers a. Receiving their feedback would determine the effectiveness of the CPW
What would I do differently	▪ Tie in feedback questions to theoretical frameworks ▪ Have more confidence in my ability and knowledge base