

The Heart of the Matter: Nonpositional Leadership and Psychological Safety in Cardiothoracic

Programs

by

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Abstract

Psychological safety in healthcare supports individual well-being, team performance, and patient quality of care. This study asked, “How might I foster psychological safety as a frontline healthcare professional in a nonpositional leadership role within the context of a cardiothoracic program?” I applied a first-person-focused action research methodology and utilized daily journaling and semistructured interviews with research participants. Thematic analysis identified themes that captured the relationship between self-perception, self-worth, and social interaction and its influence on individual experiences of psychological safety. Findings suggested self-reflection, emotional intelligence, and self-compassion can enhance individual awareness of positive attributes, contributing to a sense of connectedness at the team level. This research offered recommendations for supporting self-empowerment and self-worth in healthcare workers, encouraging their active participation in creating high-quality relationships. Future research implications explore the potential dynamic and synergistic relationship between self-compassion and psychological safety.

Keywords: psychological safety, healthcare, leadership, self-perception, self-compassion

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Dedication

This thesis is dedicated to the loving memory of my Grandma Wee, who holds a special place in my heart. I will always treasure her wholehearted support and immense pride in my achievements. She taught me the importance of advocating for myself and others, which has left an indelible impression on my life. Her love and encouragement continue to inspire me. I miss you dearly.

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Executive Summary

This engaged first-person-focused action research thesis aimed to identify and articulate actionable changes I could make within my professional practice to support a psychologically safe working environment within cardiothoracic programs. By examining my assumptions, mental models, and behaviours through reflexivity, I sought to acknowledge and confront my fallibility within the system and identify strategies for improvement to build my wisdom. My motivation to pursue this phenomenon included personal experiences of feeling unsafe within cardiothoracic programs, impacting my mental health and well-being, patient safety, and hearing others with similar concerns.

Focus and Framing

In conducting this research, I examined the following principal inquiry question at the heart of this research: How might I foster psychological safety as a frontline healthcare professional in a nonpositional leadership role to strengthen my mental health and well-being and the quality of care patients receive within the context of a cardiothoracic program? In addition, I followed the advice of Beckhard and Harris (2009) and crafted subquestions to explore the current state, ideal future, barriers, and strategies to generate change:

1. How do I currently display psychological safety practices within the cardiothoracic program that support my mental health and well-being and enhance the quality of care patients receive?
2. What does psychological safety look like within the cardiothoracic program?
3. What barriers challenge my ability to become a more psychologically safe frontline healthcare professional?
4. What strategies can I use to overcome these challenges and what opportunities might help me and support other healthcare professionals in nonpositional leadership roles?

Literature

Cardiothoracic programs require the interdependency of specialties to coordinate safe patient care within complex healthcare environments. Psychological safety within teams is a climate that fosters and encourages all members to seek, clarify, and question knowledge and behaviours without the fear of retaliation. The academic literature identified psychological safety as a construct at the individual (Detert & Burris, 2007; Kark & Carmeli, 2009) and group levels (Edmondson 1996, 2003), complementary to my current understanding. As a result, there is an opportunity to gain insight into the antecedents and implications of psychological safety and how it is embraced, built, weakened and destroyed. The literature review explored interprofessional collaboration, asymmetrical power, incivility in healthcare, and the relational dynamics between leaders and followers.

Methodology

In adherence with the Royal Roads University (2020) *Research Ethics Policy*, I applied a first-person-focused action research methodology. I divided the inquiry process into four generation cycles over 12 weeks. The data-gathering methods included qualitative, rich detail within self-reflective journaling, a modified revision of Edmondson's (1999) objective quantitative psychological safety measurement tool as well as Raes et al.'s (2011) short Self-Compassion Scale, and one-on-one interviews with participants. Each cycle explored three perspectives: three feedback participants, two subject matter experts, and my own perspective as the primary participant. Thematic analysis of the dataset captured the complexities of individuals' experiences of psychological safety and generated the following themes: (a) positive perceptions of self, (b) past experiences, (c) personal characteristics, (d) belonging enables inquiry, (e) empathy opens vulnerability, (f) vulnerability creates connection, and (g) assumptions limit exploration.

Study Findings, Conclusions, and Recommendations

I derived the study findings through an iterative engagement process with the narrative data set, my interpretive framework, and philosophical assumptions. Based on the data generated, I developed the following four findings:

1. My self-esteem affects the level of inclusion I create in my relationships.
2. Emotional awareness promotes a foundation for respectful interactions.
3. Self-compassion leads to better self-awareness.
4. My assumptions contribute to some of my most heated debates.

The interrelatedness of study findings and conclusions applied an individual perspective to psychological safety in cardiothoracic programs. Based on this study findings and the relevant literature, I developed the following four study conclusions to answer my inquiry question and subquestions:

1. Psychological safety begins with self-awareness.
2. Psychological safety requires candour and inclusive acts to encourage others to contribute.
3. Psychological safety is built upon the quality of relationships and the responsibility for owning one's experiences.
4. Intellectual disagreement is a sign of high (rather than low) psychological safety.

I offered three synergistic recommendations to foster psychological safety within cardiothoracic programs:

1. Integrate self-reflection and self-compassion into my professional practice.

2. Balance advocacy and inquiry in my communication to generate mutual learning.
3. Create a beachhead of psychological safety.

Conclusion

The relationship between self-perception, self-worth, and social interaction influences an individual's belief in a psychologically safe environment. This research recommends supporting the self-empowerment of frontline healthcare workers and encouraging their active participation to create high-quality relationships needed to stimulate psychological safety within individual practice. Thesis output product and knowledge mobilization strategies, including a self-reflective package, thesis publications, and presentation at the Canadian Society of Clinical Perfusion annual conference, identified how this research contributed to my leadership practice and the wider community. Finally, future research implications explore the potential dynamic and synergistic relationship between self-compassion and psychological safety within the cardiothoracic healthcare environment.

References

- Beckhard, R., & Harris, R. T. (2009). The change process: Why change? In W. W. Burke, D. G. Lake, & J. W. Paine (Eds.), *Organization change: A comprehensive reader* (pp. 687–698). Jossey-Bass.
- Detert, J. R., & Burris, E. R. (2007). Leadership behavior and employee voice: Is the door really open? *Academy of Management Journal*, *50*(4), 869–884. <https://doi.org/10.5465/amj.2007.26279183>
- Edmondson, A. C. (1996). Learning from mistakes is easier said than done: Group and organizational influences on the detection and correction of human error. *Journal of Organizational Behavior*, *32*(1), 5–28. <https://doi.org/10.1177/0021886396321001>
- Edmondson, A. C. (1999). Psychological safety and learning behavior in work teams. *Administrative Science Quarterly*, *44*(2), 350–383. <https://doi.org/10.2307/2666999>
- Edmondson, A. C. (2003). Speaking up in the operating room: How team leaders promote learning in interdisciplinary action teams. *Journal of Management Studies*, *40*(6), 1419–1452. <https://doi.org/10.1111/1467-6486.00386>
- Kark, R., & Carmeli, A. (2009). Alive and creating: The mediating role of vitality and aliveness in the relationship between psychological safety and creative work involvement. *Journal of Organizational Behavior*, *30*(6), 785–804. <https://doi.org/10.1002/job.571>
- Raes, F., Pommier, E., Neff, K., & Van Gucht, D. (2011). Construction and factorial validation of a short form of the self-compassion scale. *Clinical Psychology and Psychotherapy*, *18*, 250–255. <https://doi.org/10.1002/cpp.702>
- Royal Roads University. (2020). *Research ethics policy* (No. 1003). <https://www.royalroads.ca/policies/research-ethics>

Chapter 1: Focus and Framing

Let us all be the leaders we wish we had.

— Simon Sinek, *Leaders Eat Last*

Has the word leadership been overused to the point of being meaningless? The romance of leadership suggests that people overattribute organizational outcomes, both positive and negative, to that of the leaders, rather than to equally likely sources (Meindl et al., 1985). Drawing a clear distinction between leader and leadership development, Day (2000) indicated that leader development focuses on enhancing an individual's capacity to be effective in leadership roles, providing solutions to known problems. In contrast leadership development is the enhancement of an organization's capacity to accomplish shared and collective work to deal with complex unknown challenges. Leadership involves not just a single person but also people engaged in a process; unfortunately, developing an individual alone does not necessarily result in *leadership*. People tend to glorify leadership in a need to make sense of complex challenges (Bligh & Schyns, 2007). Mainly, this occurs in times of uncertainty, when people look to leaders for reassurance, comfort, and perhaps a sense of security, often characterizing them as charismatic, heroic, and even gods (Lipman-Blumen, 2005; Manz & Sims, 1991; Shadraconis, 2013; Tourish, 2013). French et al. (2010) described five bases of power that can be used to influence others, including reward, coercive, legitimate, expert, and referent, each impacting relationships and outcomes to varying degrees.

Reward power is based on the individual's perception that the social agent, role, norm, or group can administer positive valences and limit negative valences as a result of compliance. Coercive power is the individual's perception of punishment as a result of the failure to conform

and, therefore, prevent rejection. Legitimate power is the individual perception to accept formal authority's ability to influence, demand, and the expectation to be obedient. Referent power is based on the individual's identification with the influencer, the greater the attraction the stronger the desire to emulate that identity. Finally, expert power is the perception that the social agent has knowledge and a high level of skill, often in comparison to their own, within a given area. The source of power used by a leader influences how effectively the recipient responds. Power itself is not the enemy; however, its manipulation may create distrust, resentment, and opposition.

Klann (2003) stated, "Influence is the ability to persuade, convince, motivate, inspire, and judiciously use power to affect others in a positive way" (p. 11). However, the response, by followers can be commitment, compliance, or resistance. Follower commitment is the agreement and active support of the influence, compliance is the obedience yet internal disagreement with the direction, and resistance is the passive or active noncompliance with the influence attempt. A situational factor, such as a crisis, can impact the type of power used to avoid catastrophe, and the level of influence a leader creates can potentially rescue an organization by creating a stronger sense of collaboration (Hershkovich et al., 2016; Klann, 2003). In contrast, a crisis can also open the door to predatory toxic leaders (Lipman-Blumen, 2005), posing a danger, as leaders can control and influence the direction of the organization and its narrative with little consequence or accountability for their actions (Bligh & Schyns, 2007).

Followership has attracted less attention in the leadership literature. Carsten et al. (2010) defined followership as "a relational role in which followers have the ability to influence leaders and contribute to the improvement and attainment of group and organizational objectives. It is

primarily a hierarchically upwards influence” (p. 559). According to Jackson and Parry (2018), followers are the co-producers of leadership. Further, Riggio et al. (2008) stated that followers serve a common purpose, challenging the traditional hierarchical top-down approach to leadership to create a healthy psychological environment. This points to a false dichotomy between leaders and followers, highlighting an interactive relationship in which both are equally important in achieving organizational performance. Courageous followers recognize when leaders' actions are detrimental to the common purpose and guide them onto the correct path. Courageous conscience is described as the follower's responsibility to highlight, challenge, and take proactive steps against unethical judgements made by leaders (Riggio et al., 2008). The followership role represents at least 80% of the healthcare workforce (Crawford & Daniels, 2014), yet Leung et al. (2018) identified that there is only one article on followership for every 60 on leadership within the medical literature. The importance of understanding the relationship between leaders and followers in healthcare creates an opportunity to understand complex challenges and, subsequently, their likelihood for success or failure. Frontline healthcare workers must speak up, challenge the status quo, and exercise acts of vulnerability; however, to do this, they require psychological safety within this environment, and what are frontline workers' options if leaders are unwilling to listen to their concerns?

Psychological safety is an environment of rewarded vulnerability (Clark, 2020). It is an environment in which people feel included and safe to learn, contribute, and challenge the status quo without the fear of feeling embarrassed, marginalized, or punished (Clark, 2020). Further Edmondson (1999), the Novartis professor of leadership and management at Harvard Business School defined *team psychological safety* as “a shared belief held by members of the team that

the team is safe for interpersonal risk taking” (p. 350). Nembhard and Edmondson (2006) identified that an individual’s level of professional status is positively associated with their degree of psychological safety and the belief as to how appropriate it is to speak up. In contrast, frontline healthcare workers (e.g., perfusionists, nurses, respiratory therapists) have lower levels of psychological safety (Edmondson, 2012) in comparison to their direct reports (e.g., supervisors and division heads). Therefore, creating environments to allow staff to report concerns and challenges in good faith without fear of retaliation is vital for organizational improvement. Edmondson (2012) identified that when healthcare teams create psychologically safe environments, individuals are more willing and able to communicate effectively within these systems. Consequently, higher error reporting rates are noted because teams acknowledge this is part of the learning process and use it as opportunities for improvement and innovation (Edmondson, 2012). Teams with worse communication were making just as many, if not more, medical errors, but they failed to report them within the system (Edmondson, 2012). Cultivating an interpersonal climate in which everyone, from the lowest-ranking employee to the highest, feels empowered to speak up supports a learning culture and, ultimately, improves patient quality of care. Unfortunately, as Senge (2006) identified, organizations can suffer from learning disabilities. Some organizations favour maintaining an illusion of a cohesive team rather than encouraging collective inquiry and constructive dialogue when facing challenging problems, falling into the trap of preserving a positive narrative that is inconsistent with telling the truth. How, then, do courageous healthcare workers speak up in psychologically unsafe workplaces? What are the implications? Are the odds stacked against them?

In my 18 years in healthcare as a perfusionist, I have experienced and observed the negative consequences of exercising acts of vulnerability, such as challenging the status quo within my specialty, cardiothoracic programs. Crises force healthcare workers to reconnect with their values and reevaluate priorities (Lipman-Blumen, 2005). My core values are accountability, recognition, and self-discipline. My values guide me through identifying what is important and allow me to approach current challenges with greater insight and authenticity that reflects who I am and what I embody (Kouzes & Posner, 2017). I reluctantly walked away from my passion as a pediatric perfusionist, following the detrimental consequences of speaking up regarding my concerns and challenges within the system. I was part of a toxic culture with a destructive leadership team unaccountable to their actions, with no recognition of purposeful engagement in challenges with kindness and fairness. The leadership exhibited exclusion and a lack of commitment and determination to learn, grow, and develop the program. My experiences, professional vision, and values have created the foundation and anchor for this thesis topic. It is an integral part of my learning and professional growth—I wish to be the leader I never had.

In this chapter, I present the focus and framing of this first-person-focused action research thesis. I will describe the research topic's purpose, explore its significance, provide the organizational context in which the study shall be conducted, and offer a systems analysis of my workplace. Finally, I will identify my connection to the topic and the impact of personal experiences of differing levels of psychological safety within the healthcare environment.

The purpose of this engaged first-person-focused action research thesis was firstly to identify and articulate actionable changes I could make within my professional practice to support a psychologically safe working environment. Secondly, the empowerment of other

healthcare professionals to utilize this methodology to create their own self-reflective journey and create subjective strategies to implement within their professional practice. My motivation to pursue this thesis included personal experiences of feeling unsafe within this environment, its impact on my mental health and well-being, patient safety, and hearing others with similar concerns. I sought to explore my lived experiences in exercising (or not exercising) interpersonal risk as a clinical perfusionist, and further develop these skills while considering other strategies to create the environment in which I (and others) can thrive. In this thesis, I uncover and expose my assumptions, mental models, and behaviours within my practice through the process of reflexivity, deep self-awareness, and vulnerability. Acknowledging fallibility within the system and the challenges in achieving psychological safety may create the opportunity to identify actionable change. My hope is that the outcomes of this thesis will provide an avenue to open a dialogue on this phenomenon within cardiothoracic programs and may in some way help support other individuals who can relate to this inquiry topic. To that end, I sought to examine the following principal inquiry question: How might I foster psychological safety as a frontline healthcare professional in a nonpositional leadership role to strengthen my mental health and well-being and the quality of care patients receive within the context of a cardiothoracic program?

In addition to this question, I crafted subquestions to explore the current state, ideal future, barriers, and strategies to generate change (Beckhard & Harris, 2009). Senge (2006) articulated that a source of energy can be found between understanding one's current reality and desired future; this productive area is described as creative tension. However, the emotional tension people may feel due to the delayed response of achieving a desired goal, including

frustration and anxiety, may result in systems becoming amenable to lowering their vision to ease discomfort. Senge (2006) defined this pattern of behaviour as the systems archetype eroding goals and stated the importance of distinguishing between these two tensions to avoid the drifting of a vision. I developed subquestions to evoke curiosity and reflective dialogue and to guide me in answering my principal inquiry question. Based on my methodological orientation, I aimed to illuminate new knowledge, innovation, and unique opportunities for me as well as for other healthcare professionals in nonpositional leadership roles. As such, I explored the following subquestions:

1. How do I currently display psychological safety practices within the cardiothoracic program that support my mental health and well-being and enhance the quality of care patients receive?
2. What does psychological safety look like within the cardiothoracic program?
3. What barriers challenge my ability to become a more psychologically safe frontline healthcare professional?
4. What strategies can I use to overcome these challenges and what opportunities might help me and support other healthcare professionals in nonpositional leadership roles?

Significance of Inquiry

Healthcare organizations throughout British Columbia (BC) recognize the importance and benefits of creating high-performing and safe teams to achieve excellence in patient care. Emphasized throughout organizational mission statements and values are guiding principles, including respect and collaboration (BC Children's Hospital, n.d.; Fraser Health, n.d.; Providence Health Care, n.d.; Vancouver Coastal Health, n.d.). The media has publicized the

reality of internal politics experienced within BC's local cardiac programs that have negatively impacted staff and patient quality of care (Gorman, 2022; Smith, 2021). Further, *The Gritten Report* from the United Kingdom (Gritten, 2005) and the *Report of the Manitoba Pediatric Cardiac Surgery Inquest* (Sinclair, 2001) highlighted the recurrent, chronic, and embedded challenges of creating psychological safety within cardiothoracic programs and the devastating implications to patient care. More recently, the media has reported the "muzzling of British Columbia healthcare workers" (Daflos, 2023, para. 1) and highlighted frontline staff who are labelled as troublemakers or even face disciplinary action for reporting issues surrounding patient safety events within the system. Healthcare workers described a culture of fear and toxicity that continues to harm their mental health and well-being. Regardless of organizational processes and policies that aim to protect patients and staff, frontline healthcare workers stated, with conviction, that there is no safe avenue to be heard, no acknowledgement of the challenges, and no recognition of the detrimental impact within the current system. More recently, events in a Neonatal Unit in Cheshire, United Kingdom, reported the failure of hospital administration to investigate allegations of malpractice leading to seven deaths (Moritz, 2023). Further, BBC News reported at the time of the internal investigation, hospital leadership demanded that the physicians who spoke out write a letter of apology to the now-convicted serial killer frontline nurse to cease allegations against her and were ordered to attend mediation (Moritz, 2023). These high-profile cases are disturbing and point to a global healthcare system in ongoing crisis that has persisted for over two decades. It is vitally important that healthcare workers can speak out and raise concerns regarding patient quality of care and for organizations to respond effectively.

Psychological safety requires a culture of voice in which healthcare organizations can acknowledge divergent narratives and individuals trust they will not be at personal risk.

The coronavirus disease (COVID-19) pandemic has put the BC healthcare system under extraordinary pressure, exacerbating the challenges faced by the healthcare workforce and leadership teams. There is an urgency and importance to humanizing the healthcare workplace, particularly post-COVID-19 pandemic; this requires adapting approaches, humility, and momentum to address these environments. Frontline healthcare workers experience astonishingly high levels of moral distress (Lake et al., 2021), burnout, depression, and anxiety (Muller et al., 2020; Talaei et al., 2022), and interprofessional tensions have illuminated a healthcare culture that requires attention (Canadian Medical Association [CMA], 2023; U.S. Department of Health and Human Services, 2022). Crises can provide an opportunity to learn and create change, and the COVID-19 pandemic is no exception. Recently, the CMA (2023) released a long-term commitment to achieve a new medical culture and challenge the status quo by focusing on the physical and mental well-being of the workforce. The CMA (2023) *Impact 2040* report prioritized a strategic incentive for creating psychologically safe environments for healthcare workers with the recognition that, subsequently patient quality of care will improve. Likewise, the U.S. Surgeon General (2022) created the Framework for Workplace Mental Health and Wellbeing to generate organizational dialogue and guide change in the workplace. The first component of the framework is to prioritize workplace physical and psychological health and safety, again with the acknowledgement that in psychologically unsafe environments, performance is negatively impacted (U.S. Department of Health and Human Services, 2022), demonstrating that the concept of creating and promoting psychologically safe environments in

healthcare to support the workforce is gaining global attention. However, it remains unclear how the contribution of these noble agendas is actively endorsed on the frontline.

I found little qualitative research on transformational change instigated by frontline healthcare workers to nurture psychologically safe environments within cardiothoracic programs. In recognition of this, I sought to determine how I might utilize these resources within my practice to foster psychological safety as a frontline healthcare professional in a nonpositional leadership role to strengthen my mental health and well-being and the quality of care patients receive.

Organizational Context and Systems Analysis

The situational analysis of organizations highlights the complexity and unpredictable nature of systems. Complex adaptive systems, such as healthcare, consist of interdependent, interrelated, and interacting parts that form a whole (Paina & Peters, 2012; Plsek & Greenhalgh, 2001; Rouse, 2008; Weberg, 2012). Systems thinking is a set of metacognitive processes that individuals use to build knowledge from information, influenced by their mental models when making meaning to manage polarities. Applying systems thinking concepts may increase people's understanding of complex problems that are averse to conventional approaches, allowing them to see how changes will impact the system through nonlinear dynamic relationships and behaviours and identify leverage points for change. Richmond (1994), who coined the term systems thinking, defined it as "the art and science of making reliable inferences about behaviour by developing an increasingly deep understanding of underlying structure" (p. 139). Senge (2006) expanded on this definition to incorporate interrelationships through the awareness and understanding of patterns, structures, and underlying dynamics within a system,

to see them clearer, perceive things differently, and solve challenges effectively. Arnold and Wade (2015) further emphasized the importance of including the systems purpose, stating, “Systems thinking is a set of synergistic analytic skills used to improve the capability of identifying and understanding systems, predicting their behaviours, and devising modifications to them to produce desired effects. These skills work together as a system” (p. 675). While authors have put forward many differing definitions of system thinking, I found common holistic threads focusing on the relationships among components, the dynamic behaviours within the system, and seeing the whole system rather than individual parts (Stroh, 2015). Fundamental to approaching change in complex systems is the ability to be creative and innovative, this includes challenging the hierarchy and dominating traditional processes (Bevan & Henriks, 2021; Snowden & Boone, 2007). According to Heward et al. (2007), change “requires a vision and understanding of the core functions of the system and infrastructure supporting those core functions” (p. 174). As such, I chose to conduct a first-person-focused action research thesis with a systems orientation (see Appendix A) to enhance my ability to identify how inquiry into my own leadership practice could create leverage and contribute to second- and third-person outcomes.

While perfusionists in Canada are certified by the Canadian Society of Clinical Perfusion (n.d.), the role is unregulated in Canada. Perfusionists are employed by a health authority and maintain membership with the Health Sciences Association (n.d.) union. Within the organizational structure, I report to the clinical perfusion supervisor, then to an administrative operating room and intensive care program manager, and thereafter to the clinical director of operations. However, in the operating room and intensive care settings, I work under the

direction of the most responsible physician, who takes on the lead role in navigating the patient's clinical care.

Figure 1

Cardiopulmonary Bypass



Note. The cardiopulmonary bypass machine, operated by the perfusionist, temporarily takes over the function of the heart and lungs during surgery, maintaining the circulation of blood and oxygen to the body. Figure created by author.

As a perfusionist, I specialize in extracorporeal technology, operating the cardiopulmonary bypass machine during heart surgery in the operating room (see Figure 1), and extracorporeal membrane oxygenation within the intensive care units while working as part of a multidisciplinary team. The cardiac operating room is a high-stress, high-stakes environment

where life-and-death responsibilities and decisions are recurring practices for the team. I collaborate with the surgeon and anesthesiologist, maintaining perfusion to the patient's organs, taking over the role of the heart and lungs while creating the optimal conditions for the surgeon to repair the heart. Effective communication in the operating room is closed-looped, direct, and concise. Perfusionists are required to process and interpret multiple pieces of information rapidly and communicate effectively so that the team can make lifesaving decisions. These conversations rely on each team member to articulate their needs, understanding, and limitations to achieve safe practices and high quality of care.

The healthcare team consists of multiple professionals from differing specialties, contributing to the cardiothoracic program, including physicians, nursing, allied healthcare (including perfusion), and administrative leadership. While a medical hierarchy plays an essential role in patients' care the imbalance of power within these relationships leads to the breakdown of psychological safety within the team. Likewise, competing priorities between the clinical and administrative teams add a layer of complexity to the system. Powerful people are often unaware of issues that are invisible to them; dominant narratives reflect their ideological realities, privileges, and worldviews, shaping others' perspectives and assumptions. Taylor (2013) described how leaders' perspectives can negatively influence organizations and limit contributions, requiring a movement away from culturally homogeneous environments to that of multiple worldviews, defined as multilevel interdependencies. Power imbalances create situations of privilege that inherently favour some and negatively affect others, creating oppression. Nobles (n.d.) described power as "the ability to define reality and to have other people respond to your definition as if it were their own" (para. 3). The influence of power

dynamics between interprofessional healthcare teams negatively impacts collaboration and the effective delivery of service (Okpala, 2021). Young et al. (2020) stated that healthcare systems are structured around established historical and contemporary systems of oppression and power. Intersectional drivers of representation in leadership and the workforce are based on societal structures and emphasize an imbalance within the system (Young et al., 2020). Several authors contended that nursing is an oppressed group (Dunn, 2003; Freshwater, 2000; Roberts, 2000); however, some scholars postulated that this is not isolated to the nursing profession alone (Stanley et al., 2007; Volz et al., 2017). DeMarco and Roberts (2003) suggested feeling powerless triggers a cycle of oppressed group behaviour, exacerbating negative conduct such as horizontal violence, incivility, and interprofessional conflict. Freire (2020) theorized that oppressed people internalize their situation and minimize their beliefs, values, and self-worth while accepting and reflecting the dominant group's behaviour. Oppressed people display what they internalize by acting like the oppressor but remaining submissive to them; as a result, the oppressed develop hostility for their group and subsequently become the oppressors within their specialty (Purpora & Blegen, 2012). Reducing the power imbalance within the medical hierarchy and applying an intersectional lens may assist in dismantling oppression and destructive behaviours, thereby enhancing levels of psychological safety within this system. It was, therefore, important that I understand my position of power and privilege within the team dynamic and how I contribute and negatively impact psychological safety. Through the reflection on my role and experiences, I aimed to identify actionable changes I could make within my leadership practice to dismantle the harmful behaviours, emotions, and structures I may unknowingly exhibit.

Personal Connection

As a clinical perfusionist, I have experienced and observed differing levels of psychological safety within the healthcare environment that has impacted my mental health and well-being as well as the quality of care patients receive. For example, within one organization I felt a sense of equality and balance of power between individuals. I experienced job fulfillment and a sense of personal belonging, loyalty, and commitment within the team. Within my role, I was appreciated, confident, and safe to ask questions and suggest alternative perspectives—I had a strong sense of integrity. As a result, I viewed the team as collaborative, cultivating an environment of learning through trust, respect, and accountability. That team was innovative and worked toward the same goal in the care provided to patients. However, subsequently, in that same organization, I was exposed to overwhelmingly negative experiences within a psychologically unsafe environment. Leaders, I believe, demonstrated legitimate, coercive, wielded informational power forms, and horizontal and vertical violence were evident within the team. In this environment, individuals displayed hostility and bullying occurred between intra- and interprofessional specialties at the clinical and administrative team levels, including gaslighting and public humiliation governed the program. In stark contrast to the previous work environment, I felt unsupported, dismissed, and distressed. I began to feel irrational, was made to feel hysterical, and I became cynical toward others. I had lost the passion for my clinical role. I doubted my skills and was overwhelmed by organizational politics; it took all my energy and focus to protect myself and my cardiac patients. This team was dysfunctional and I believe the care patients received was risk tolerant, suboptimal, and at times dangerous.

Instinctively, I voiced my concerns within the clinical settings, independently with physicians, and within my reporting structure. I sought organizational safety policies, filed patient safety reports to document events, met confidentially with a safe reporting officer offsite, and finally the organization's board of directors when none of the former actions elevated concerns. I found my actions and the detrimental consequences of speaking up exacerbated negative emotions and further decreased my confidence. I felt powerless, which drastically impacted my mental health and well-being, as no discernible accountability or change was implemented. The consequences of my actions as a whistleblower led to further isolation within the team, as I was seen as a troublemaker. To protect myself and regain a sense of control I contemplated self-harm. Thankfully, I sought external support and reluctantly left a subspecialty of my profession that was part of my identity.

I have an emotional investment in this research and genuinely care about others who have experienced similar challenges within their working environments. My experience within a culture rife with bullying, rudeness, and incivility was so formative that I decided to invest my time in learning about leadership, particularly the importance of creating a psychologically safe healthcare environment. My hope is that others can utilize the research findings and recommendations to foster psychological safety in their work environments, improve the quality of care patients receive within cardiothoracic programs, while also strengthening their mental health and well-being.

Chapter Summary

In this section, I have presented the research purpose, explored its significance, provided organizational context, and identified my connection to the topic. I have described the impact of

personal experiences of differing levels of psychological safety within cardiothoracic programs and sought to briefly describe the influence of power imbalance and intersectional drivers that may contribute to this phenomenon.

Thesis Overview

The remainder of my thesis consists of a further four chapters: a literature review, methodology, inquiry project findings and conclusions, and inquiry implications. Chapter 2 compares, contrasts, and synthesizes relevant academic literature to gain insight into the antecedents and implications of psychological safety, and how it is embraced and built, or weakened and destroyed. The topics within my literature review include (a) interprofessional collaboration, (b) asymmetrical power, (c) incivility in healthcare, and (d) the relational dynamics between leaders and followers. Chapter 3 describes the suitability of both the theoretical framing and methodological approach of this first-person-focused action orientated inquiry into fostering psychological safety within my practice. I discuss the selected data collection methods and inquiry conduct, including specific details about participant recruitment, data analysis, validation, and how I mitigated biases within my thesis research. I articulate how I adhered to the *Tri-Council Policy Statement* (Canadian Institutes of Health et al., 2018) principles of respect for persons, concern for welfare, and justice throughout my inquiry, and, finally, I discuss thesis outputs and knowledge mobilization strategies. Chapter 4, reports on two separate but interrelated sections, my study findings and conclusions. I present four study findings, based on the process of coding and theme creation through thematic analysis, as detailed in Chapter 3, and articulate a series of study conclusions that additionally reflect my research inquiry question and subquestions and theoretical underpinnings reviewed in Chapter 2.

Finally, I review the intended scope of the study, the study limitations including irregularities explored, and key learnings documented. The final chapter synthesizes Chapters 2, 3, and 4 into actionable recommendations to foster change within my professional practice. I close the thesis with the practical implications of this research thesis, avenues for future inquiry, and a thesis summary and conclusion.

Chapter 2: Literature Review

In this chapter, I provide an overview of the academic literature relevant to my first-person-focused action research in exploring psychologically safe practices as a healthcare worker in a nonpositional leadership role to strengthen my mental health and well-being and the quality of care patients receive within the context of cardiothoracic programs. The topics within my literature review include interprofessional collaboration, asymmetrical power, incivility in healthcare, and the relational dynamics between leaders and followers.

Cardiothoracic programs require the interdependency of specialties to coordinate safe patient care within complex environments. Environments such as operating rooms require individuals with specialized skills to improvise and adapt to unpredictable situations while transferring information (Sundstrom et al., 1990), allowing the coordination of action in real time (Edmondson, 2003a). Psychological safety within teams is a climate that fosters and encourages all members to seek, clarify, and question knowledge and behaviours without the fear of retaliation. This can result in enabling team learning, collaboration, and growth surrounding a shared purpose. Kahn (1990) suggested, “Feeling able to show and employ oneself without fear of negative consequences to self-image, status, or career . . . [and] trust that they would not suffer for their personal engagement” (p. 708). Further, Edmondson (2003b) identified tacit calculus, an internal process in which individuals assess the interpersonal risk of their actions and subsequent perceptions of the consequences within the team environment. Therefore, psychological safety is a construct at the individual (Detert & Burris, 2007; Kark & Carmeli, 2009) and group levels (Edmondson 1996, 2003b), both of which are complementary to the current understanding. As a result, there is an opportunity to gain insight into the antecedents and implications of

psychological safety and how it is embraced and built, weakened, and destroyed. Despite the importance of psychological safety, it is often lacking, and a culture of fear and low psychological safety exists within healthcare teams (Edmondson, 2003a; Moore & McAuliffe, 2012; Swendiman et al., 2019; Unal & Seren, 2016). As such, understanding how I could rebuild psychological safety and growth within my practice as a result of previous experiences was an advantageous outcome of my inquiry.

Asymmetrical Power in Healthcare

The influence of hierarchy within the healthcare setting creates barriers to communication both within specialties and across professional boundaries (Edmondson, 2003a; Nembhard & Edmondson, 2006). Individuals with higher levels of status within the system have perceived higher levels of psychological safety (Atwal & Caldwell, 2005; Jain et al., 2016; Reese et al., 2016; Schwappach & Gehring, 2014). These individuals are more likely to be asked their opinion and because of their reputation and significant contributions, thereafter, learn to offer opinions freely without fear or concern of objection, rejection, or marginalization compared to group members with less power (Nembhard & Edmondson, 2006). Further, individuals with less power often defer to others, underestimate their contributions, and withhold valid information (Argyris, 1985) to protect themselves through self-censorship. Edmondson (2003a) identified a barrier to speaking up was a lack of conviction and individuals' perceptions that their input was not explicitly needed and/or desired within the group. Further, Siemens et al. (2009) identified individual confidence in knowledge moderates the effect of their perceived psychological safety and motivation to share this information.

The degree of hierarchy in healthcare teams impacts patient outcomes (Nembhard & Edmondson, 2006), and better outcomes are correlated with less hierarchy communication patterns between team members (Page, 2004). Practical enablers of creating psychological safety and reducing asymmetrical power in healthcare include personal fallibility, inclusive behaviours, and building self-confidence of individuals. Emphasizing personal fallibility is a practical enabler of creating psychological safety (Hirak et al., 2012; Nembhard & Edmondson, 2006; D. F. O’Leary, 2016). Fallibility creates a compelling rationale for others to speak up, centres the discussion on teamwork, and reduces the boundaries between individuals and disciplines (Edmondson, 2002). Inclusive behaviours, particularly when illustrated by leaders, have been acknowledged as a remedy to reduce the power differential between professions (Hirak et al., 2012). Nembhard and Edmondson (2006) defined inclusiveness as words and deeds that indicate an invitation for others’ contributions and a subsequent appreciation through a positive constructive response. Further, Clark (2020) identified the responsibility of inclusion safety and being part of a social unit as the primary stage for establishing psychological safety, as the need to be accepted, connected, and belong precedes the need to be heard. Leader inclusiveness attempts to capture, appreciate, and acknowledge others in discussions and decisions in which their perspectives and voices might otherwise be absent. Inclusion strengthens a shared identity, team relationships, and creates collaboration and engagement of members within the multidisciplinary team (Clark, 2020; Hirak et al., 2012; Nembhard & Edmondson, 2006), all critical to delivering high-quality of care.

Interprofessional Collaboration

Positive interpersonal relationships foster a psychologically safe atmosphere at work and are significantly related to learning from failures (Carmeli & Gittell, 2009). Relationship networks within the working environment promote psychological safety, mainly through the development of trust and support among peers within teams (Kahn, 1990). Edmondson (1996) identified that the quality of the relationships impacted the employees' shared belief of whether making mistakes would be held against them. Team communication failures account for a degree of medical errors (K. J. O'Leary et al., 2019; Reader et al., 2007; Sutcliffe et al., 2004); therefore, creating a greater level of psychological safety would be beneficial to the quality of care patients receive.

Practical enablers of psychological safety that encourage collaboration at individual and team levels include familiarity with colleagues and the ability to engage in productive conflict. McAlister (1995) identified two principal forms of interpersonal trust: cognition-based trust, which centres on an individual belief about peer reliability and dependability, and affect-based trust, which is reciprocated interpersonal care and concern. Feltman (2008) identified that trust occurs when an individual shares something that they value as vulnerable, exposing it to another person's actions. Mistrust, in contrast, occurs when an individual identifies a lack of safety with this person or situation and wishes to protect or withhold information. Bradley et al. (2012) contended that trust is established at the individual level, whereas a team's perspective of psychological safety is distinct and explores the climate at a group level. While Lencioni (2002) defined building team trust as requiring the ability to be vulnerable together, Newman et al. (2017) identified peer support and trust improve psychological safety within teams. Therefore,

supportive and trustworthy behaviours are likely to produce feelings of safety at work (May et al., 2004), while kinship promotes a sense of belonging, which can improve social resilience, a key component to improving well-being and combating burnout (Swendiman et al., 2019). This highlights the importance of building relationships and cultivating familiarity with other team members to facilitate psychological safety (O'Donovan & McAuliffe, 2020a), particularly in matters about patient safety (Swendiman et al., 2019).

Psychological safety does not imply a team with an absence of conflict (Edmondson, 2003a), but rather the capability to engage in productive ideological conflict (Lencioni, 2002). Teams that adopt artificial harmony can emerge into counterproductive groupthink states (Janis, 1991). The ambiguous nature of conflict within teams can lead to destruction or stimulate richer interactions and improved performances. Bradley et al. (2012) identified task-based conflict related positively to performance when teams had high levels of psychological safety. O'Donovan and McAuliffe (2020b) identified healthcare workers felt comfortable speaking up about concerns related to patient safety, yet matters about personal issues or disagreements were met with hesitancy. The culture and learning opportunities within a team are influenced by behaviours (Edmondson, 1999). Team members are highly attuned to the leader's behaviour and as a result create the foundation of acceptable interactions (Tyler & Lind, 1992) and cultural norms.

Incivility in Healthcare

Andersson and Pearson (1999) defined incivility as “low-intensity deviant behavior with ambiguous intent to harm the target, in violation of workplace norms for mutual respect. Uncivil behaviours are characteristically rude and discourteous, displaying a lack of regard for others”

(p. 457). Incivility negatively impacts psychological safety and personal well-being (Burnes & Pope, 2007; Klingberg et al., 2018), quality of care, team dynamics, and communication (Rosenstein & O'Daniel, 2006). In addition, a trickle-down effect of this behaviour from high to low ranks is well documented within empirical evidence (Liu et al., 2020; Mawritz et al., 2012; Wo et al., 2015), and the destructive behaviours of a few individuals can have a profound impact on the whole organization. As Tepper et al. (2017) identified, employees are prone to mirror their supervisors' behaviours due to their perceived credibility, authority, and level of influence on future career opportunities. Pearson et al. (2001) showed that the perpetrator of incivility was three times more likely to be of a higher status than the target. Further, those targeted are at risk of displaying horizontal violence (King-Jones, 2011), the harmful behaviour oppressed individuals may engage in when expressing frustration from working in hierarchical systems where they have a great responsibility, yet minimal power (Freshwater, 2000). Horizontal behaviours include acts of unkindness, discourtesy, divisiveness, and lack of cohesiveness. Examples include belittling gestures, verbal abuse, gossiping, sarcastic comments, fault-finding, devaluing comments, disinterest, and discouragement.

Horizontal violence in healthcare, identified particularly amongst the nursing profession (Duffy, 1995; Freshwater, 2000; King-Jones, 2011; Roberts, 1983; Taylor, 2016), results in individuals suffering from depression, anxiety, and post-traumatic stress disorder (Rowell, 2005). When civility is absent, work relations can become fractured and interfere with communication. Rosenstein and O'Daniel (2006) identified several recommendations for addressing incivility within the healthcare setting, including recognition and awareness, policies and procedures, incident reporting, education and training, communication tools, and discussion forums.

Andersson and Pearson (1999) identified that a reasonable first approach might be self-reflection and evaluation of one's behaviour and how that may contribute to a normality of incivility within the workplace. Those instigating uncivil behaviour must be held accountable, regardless of their status and contribution to the organization (Andersson & Pearson, 1999). The Joint Commission (2021) noted that over one third of executives confirmed physicians, who generate high amounts of revenue, are treated more leniently when it comes to matters of behavioural problems in comparison to their interdisciplinary counterparts. The disparity and inconsistent application of policies require attention, as this creates a power imbalance within the system and an inability to control the emulated behaviours of others within the team.

Speaking up is integral to organizational citizenship behaviour (Van Dyne et al., 1994). Organizations have failed to address incivility in healthcare, particularly as these behaviours are low profile and grow slowly; consequently, organizations have ignored and perhaps accepted them as individuals' personalities (Zimmerman & Amori, 2011). Porath (2016) argued that relying on organizational remedies rarely creates the desired effect and holistic measures such as journaling, mentorship, and mindfulness to support personal well-being may be a better approach and an antidote to incivility through building self-esteem, resilience, and empowerment.

Relational Dynamics Between Leaders and Followers

The relational dynamics between leaders and followers acknowledge that leadership practice is a mutually influenced relationship. The leader-member exchange theory is the coproduction of outcomes, suggesting leaders and followers develop a dyadic relationship based on social interactions (Graen & Uhl-Bien, 1995). Graen and Uhl-Bien (1995) stated, “[The] centroid concept of the theory is that effective leadership processes occur when leaders and

followers are able to develop mature leadership relationships (partnerships) and thus gain access to the many benefits these relationships bring” (p. 225). However, when this relationship breaks down or team members fail to work together toward a common vision, disastrous implications to the individuals and organization may result.

Despotic leadership negatively affects outcomes at the individual and group levels, including increased emotional exhaustion, decreased life satisfaction (Braun et al., 2018), higher levels of counterproductive work behaviour, resignation from roles, decreased morale (Tepper et al., 2017), and jeopardizes an organization's purpose (Padilla et al., 2007). Dark leadership is characterized by a cluster of personality traits described as the dark triad: Machiavellianism, subclinical psychopathy, and narcissism. A Machiavellian leader has a manipulative personality and is deceptive and self-interested; these leaders succeed through the exploitation of others (Rauthmann, 2011). A psychopathic leader has high impulsivity with low empathy and morality (Paulhus & Williams, 2002). Narcissistic traits include grandiosity, dominance, and superiority. Narcissistic leaders are described as self-absorbed, arrogant, hostile, and entitled, with practices leading to destruction at interpersonal and organizational levels (Contreras & Espinosa, 2018; McCleskey, 2013). In contrast, Maccoby (2004), an American anthropologist and psychoanalyst, discussed the strengths of productive narcissist leaders who are charismatic, skillful orators, and can guide organizations through times of uncertainty, leaving behind a legacy. Further, McCullough (2019) highlighted corporate psychopaths who seek dominant positions are opportunistic, manipulative, and charming. McCullough found 12% of CEOs display psychopathic traits, in comparison to 1% in the general population and 15% of the incarcerated population, illustrating individuals in positions of power may be susceptible to negative

behaviours that have detrimental consequences for both individuals and organizations. However, it would be erroneous to believe all counterproductive behaviours that deplete psychological safety emanate from leaders alone. The darker side of followership, followers' impact, and the role they play via traits, theories, and attributions warrant further exploration.

According to Belschak et al. (2018), follower Machiavellianism reduces supportive behaviour and increases knowledge concealment and emotional manipulation, particularly when ethical leadership is low; in this instance, ethical leadership acts as a buffer for the negative outcomes of dark followership behaviours (Belschak et al., 2018). Barelds et al. (2018) noted leader psychopathy positively related to leader self-serving behaviours, but only when followers had low self-esteem. Thus, reflecting the characteristics and interactions of both followers and leaders impacted the degree of negative outcomes.

Follower typologies have taken multiple perspectives that identify the characteristics and styles of followers. Kelley (1988) discussed five types of followership based on a two-dimensional taxonomy, including engagement and critical thinking, ranging from passive to active and dependent uncritical to independent critical, respectively. These styles include exemplary (active and independent critical thinkers), conformist (active and dependent uncritical thinkers), passive (passive and dependent uncritical thinkers), alienated (passive and independent critical thinkers), and pragmatist styles (medium to both; Kelley, 1988). Exemplary followers rank high in both dimensions, thinking for themselves and being willing to challenge leaders by providing alternative solutions. Likewise, these followers align with the beliefs of their organizations and support leaders' decisions, working in harmony with others. Conformists are referred to as yes-people, active doers who unquestionably follow leaders (Kelley, 1988). These

individuals are passive, often referred to as sheep, following leaders but requiring constant direction (Kelley, 1988). Alienated, negative, and critical skeptics, described as mavericks, are willing to oppose management (Kelley, 1988). Finally, pragmatists maintain the status quo and wait for crises to pass before acting. Exploring follower typologies highlighted how I display both exemplary and alienated characteristics within my practice as I interacted with leaders, which allowed for deeper self-reflection on my assumptions, judgements, and behaviours, and, subsequently, highlighted how I am able to both enhance and threaten psychological safety within my relationships. Follower typologies therefore may depict how I interact with unethical leadership and my subsequent decisions. Lipman-Blumen (2005) identified three major categories of followers that sustain a toxic leader or push a leader into toxicity—benign, entourage, and malevolent—and described why individuals supported and enabled toxic leaders and how followers could utilize this information to understand how they may acutely and perhaps unintentionally create a toxic leader.

Padilla et al. (2007) described the toxic triangle of destructive leaders (including charisma, personal need for power, negative life themes, ideology of hate, and narcissism), susceptible followers (including conformers and colluders), and conducive environments (including instability, perceived threats, lack of checks and balances), which contribute to the adverse outcomes that compromise quality of life for employees (healthcare workers), clients (patients), and the fate of the larger social organization (healthcare).

My perspectives on toxic cardiac culture are subjective creating additional challenges in identifying actionable changes in leader-member exchange relationships. In Tepper et al.'s (2017) research, 10% of individuals were exposed to abusive supervision, identifying it as a rare

interaction; however, they noted that perception, mislabelling, and underreporting may contribute to this low percentage. Further, individuals with differing reactions or assessments of the same encounter may impact their study results (Tepper et al., 2017). For example, Nevicka et al. (2018) concluded that followers with low self-esteem and core self-evaluations perceived narcissistic leaders as more abusive. In contrast to Tepper et al. (2017), the LeaderFactor (2023) identified alarmingly that 86% of employees have experienced a toxic culture. Abusive supervision and its long-term effects have drawn similarities with individuals suffering from post-traumatic stress disorders and the negative effects of mistreatment often persist long after the abuse has ended (Vogel & Bolino, 2020). Tepper et al. (2017) articulated that the coping mechanisms and implications for practice are as yet unproven; however, suggestions to date include visible enforcement of moral behaviours (Padilla et al., 2007), enhancing social bonds between employees (Vogel & Bolino, 2020), improving emotional intelligence, and training that encourages individuals to confront superiors. Greenbaum et al. (2013) stated, “The promotion of moral standards and a sense of psychological safety may contribute to a work environment that encourages employees to engage in constructive behaviours after witnessing immoral behaviour” (p. 940). Self-reflective practice, compassion, and development may create opportunistic avenues to foster psychological safety and support mental health and well-being when confronted with toxic environments in the healthcare context.

Chapter Summary

In this chapter, I explored the literature on asymmetrical power, interprofessional collaboration, incivility, and the relational dynamics between leaders and followers. The importance of exploring the duality emerging between historical destructive behaviours that I

have experienced and my current behaviours are multifactorial. Firstly, recognizing such terms as horizontal violence, narcissistic leadership, toxicity, and abuse allow me to appropriately apply interventions and strategies to create psychologically safe spaces. In addition, the ability to nurture my mental health and well-being when these behaviours are witnessed or experienced in the healthcare system enabled me to improve my work environment. Secondly, explicitly defining these behaviours allowed me to question my assumptions, which led me to pose the following questions: Can I confidently say I am on the receiving end of toxic leadership? What responsibility am I assuming in my nonpositional role? What do I unknowingly communicate and demonstrate with others? Moreover, what can I do about it, and what is safely within my sphere of influence? Finally, describing these behaviours in perhaps more palatable or preferred organizational language such as the term unprofessional behaviour, I feel, makes the unacceptable more acceptable. Understanding the nuances of language and emotions helped me ask myself the right questions and share my experiences in a manner that builds connection. As a result, reflecting on the reality in healthcare settings, being transparent, and authentic creates opportunities to make impactful change. The next chapter presents the research methodology, including data collection methods, inquiry conduct, key ethical issues, and knowledge output and mobilization strategies.

Chapter 3: Methodology

This chapter outlines how I conducted this engaged, first-person-focused action research methodology and explains the suitability of this inquiry to fostering psychological safety within my practice. I discuss my selected data collection methods of self-reflective journaling and one-on-one interviews, including the benefits and challenges they presented. I then discuss the inquiry conduct, describing specific details about participant recruitment, data analysis, validation, and how I mitigated biases within my thesis research. I review key ethical issues and how I addressed the three *Tri-Council Policy Statement* (Canadian Institutes of Health Research et al., 2018) principles of respect for persons, concern for welfare, and justice throughout my inquiry. Finally, I conclude with the thesis outputs and knowledge mobilization strategies I employed, identifying how this thesis research contributed to my leadership practice and is applicable to the wider community.

Methodology

Action research is influenced by social constructivism, the understanding that knowledge is created through human relationships and social interactions, especially language (Gergen & Gergen, 2015). Reason and Bradbury (2008) defined action research as

a participatory process of practical knowing in the pursuit of worthwhile human purposes. It seeks to bring together action and reflection, theory and practice, in participation with others, in the pursuit of practical solutions to issues of pressing concern to people, and more generally the flourishing of individual persons and their communities. (p. 4)

Action research is cyclical, iterative, and open-ended compared to the dominant linear flow models seen in experimental research. Lewin (1946) defined action research as a process that “proceeds in a spiral of steps, each of which is composed of a circle of planning, action, and fact-finding about the result of the action” (p. 38). Similarly, the plan-do-study-act model is widely used in healthcare. When applying this model, a problem requiring improvement and systematic data-driven action is followed by reflection and observation of the changes in the social situation, subsequently leading to problem redefinition and repetition of the process to further build on understanding within the social context (Ferrance, 2000). According to Tobert (1999), developmental action research has three focuses: “The first-person dynamics of one’s own awareness, the second-person dynamics of the immediate group with whom one is interacting, and the third-person dynamics of the larger institutions within which one’s action is situated” (p. 189). Further, Marshall and Mead (2005) stated, “If inquirers are not paying attention to their own process and actions in the world, we doubt their abilities to engage with others in respectful and mutual ways, especially if issues of power are involved” (p. 238). Within a first-person-focused methodology, through exploring and self-inquiry, I created actionable changes I can make in a nonpositional leadership role to appropriately apply psychologically safe practices that support my mental health and well-being and the quality of care patients receive within the context of cardiothoracic programs.

First-Person-Focused Action Research

A research methodology is a strategy of inquiry that aligns with the researcher's ontological and epistemological position (Deane, 2018; Wilson, 2008). Methodologies depict the lens and rationale through which the results are analyzed, based on the researcher’s beliefs and

values (Kara, 2017), thereby creating the boundaries surrounding the inquiry. When conducting first-person-focused action research, “researchers are involved in articulating and critiquing the knowledge inherent in their actions in order to understand their practice better or become more effective in the pursuit of worthwhile aims for themselves, their community or workplace or the wider world” (Coghlan & Brydon-Miller, 2014, p. 349). Further, Denscombe (1998) articulated that utilizing the process of action research within a first-person-focused methodology creates the opportunity for professional self-development through the improvement of practice. Researchers “focus on aspects of their own practice as they engage in that practice” (Denscombe, 1998, p. 128). In contrast, organizational-focused action research emphasizes the collective engagement of stakeholders at each stage of the research process, ensuring stakeholder priorities and voices are incorporated into the strategy, leading to commitment, loyalty, and ownership of the process. As a result, an explicit transitional zone (Rowe et al., 2013) is integral within the process, whereby the movement of the researcher's role transfers from a facilitator in stakeholder engagement to stakeholder ownership and their subsequent empowerment to create transformational change. Within first-person-focused action research, a continuous cycle of planning, acting, observation, and reflection into one’s leadership practice is enhanced by fostering a dialogic ethos with participants. By creating an environment in which diverse perspectives can be contributed and through ongoing interactions, I created the opportunity for generative questions to be posed and deeper learning to occur within my practice. Reason and Bradbury (2008) identified that the centrality of participation in action research is based on the view that the world consists “not of things but of relationships we co-author” (p. 9). Therefore,

within the context of this inquiry utilizing interpersonal and professional relationships, the generation of knowledge and learning was enhanced through dialogue with others.

First-Person-Focused Action Research and Psychological Safety

Schein and Bennis (1965) coined the term psychological safety, identifying that individuals need to feel secure and confident in their ability to adapt to organizational change. Schein (1993) further contributed that self-preservation strategies to unpredictable or discouraging feelings toward change resulted in defensiveness, survival anxiety, and learning anxiety that limited the capacity to engage with the collective goal. Since then, numerous researchers have explored psychological safety. Psychological safety is described as an individual perception of the consequences of taking interpersonal risks (Edmondson & Lei, 2014) without fear of negative consequences to self-image, status, or career (Kahn, 1990). Kahn (1990), a professor of organizational behaviour at Boston University's Questrom School of Business published a prominent paper that identified how people's experiences of themselves and their work contexts influenced moments of personal engagement and disengagement. He noted that three psychological conditions—safety, meaningfulness, and availability—affected an individual's willingness to “employ or express themselves physically, cognitively, and emotionally” (Kahn, 1990, p. 694). In contrast, personal disengagement is the withdrawal and defensive behaviours experienced during work performance (Kahn, 1990). Through qualitative research, in which he explored and examined participants' conscious and unconscious experiences during discrete moments of task performance, Kahn illustrated how perceived psychological experiences shaped individual behaviours, particularly the ability to trust and respect others. Almost a decade later, Edmondson (1999) stated that individuals engage in a

cognitive process at microbehavioural decision points, weighing the interpersonal risk of engaging with a given behaviour. Determining the impact of their chosen behaviour, for example, “I will be humiliated and mocked,” may then result in the decision to remain silent. However, a psychologically safe environment does not imply a team experiences no disagreement (Edmondson, 2002), as group cohesiveness can be detrimental to achieving organizational innovation and creativity. Janis (1991) defined the term groupthink as “the mode of thinking that persons engage in when concurrence-seeking becomes so dominant in a cohesive ingroup that it tends to override realistic appraisal of alternative courses of action” (p. 237). Janis described one symptom of groupthink as self-censorship. This occurs when individuals avoid deviation from the common narrative by keeping silent, even at the expense of minimizing the importance of their self-doubt to themselves. Clear historical examples have been linked to this concept, including the space shuttle Challenger disaster (Lipman-Blumen, 2005) and the Bay of Pigs invasion (Edmondson, 2012).

Kark and Carmeli (2009) argued that increased levels of psychological safety induce feelings of excitement, energy, and enthusiasm, which impact an individual’s behaviour and involvement in creative and innovative work. While Edmondson (2004) proposed that psychological safety within a system may be created at the group and organizational level, the autonomy to contribute within this system is at an individual level (Wouters-Soomers et al., 2022). Likewise, while groupthink illustrates a group phenomenon, it focuses on individual level and, consequently, how the group impacts individual decision-making (Wekselberg, 1997). My perception of the level of psychological safety in a cardiothoracic program and team behaviours creates the environment for me to exercise (or not exercise) vulnerability-based trust, which

Lencioni (2002) listed as the first of his five dysfunctions of a team. Psychological safety within healthcare settings contributes to a culture that facilitates individuals sharing ideas, knowledge, concerns, and suggestions, enhancing the quality of care patients receive, ultimately leading to organizational improvement. Understanding personal factors contributing to the level of psychological safety I perceive, the perspectives of others within the same system, and examining its implications emphasizes the suitability of the first-person-focused methodology I conducted within my inquiry.

Data Collection Methods

Methods are the tools and techniques of practical application to generate data including journaling, surveys, and interviews with research participants. There are distinct approaches to how data are collected, and these may include quantitative and/or qualitative methods, reflecting the philosophical foundations and research paradigm. Qualitative research is language-oriented data, aimed to develop meaning and understanding, and create a theory; and therefore, it is an inductive approach. In addition, a value-laden, flexible, descriptive, and context-sensitive framework is explored to understand worldviews (Gelo et al., 2008). A quantitative approach aligns with a scientific, positivist methodology, and objective epistemology. Hypotheses are tested within number-oriented data, with a defined independent variable in a deductive approach (Gelo et al., 2008). The approach is objective, often contains large sample sizes, is value-free and aims to create generalizable (external validity) and replicable effects allowing for prediction, a nomothetic approach to create laws and theories (Gelo et al., 2008). However, Gergen and Gergen (2015) argued that maintaining objectivity and neutrality is unfeasible as personal interests and choice of subject matter would indicate values are present.

The integration of both quantitative and qualitative data generation creates a mixed-method approach. Mixed methods seek to create an interactive continuum and overcome the dichotomy of philosophical foundations and methodological assumptions (Gelo et al., 2008). Golafshani (2003) stated that engaging in multiple methods created a diverse, reliable, and valid construct of realities, enabling multiple worldviews and paradigms to coexist. This, as a result, increases the validity and credibility of findings through a process of triangulation. Suter (2012) defined triangulation as “a type of cross-validation (corroboration) or data cross-checking procedure in which multiple data sources or data collection procedures are expected to agree (converge)” (p. 380). Further, Gelo et al. (2008) emphasized that the strengths of qualitative and quantitative methods are exploited in triangulation while the distinct weaknesses of each are minimized as the results are compared. Triangulation enables the researcher to look at the phenomenon from differing perspectives and contexts, increasing the rigour and integrity of the study to create a solid more complete understanding.

Given the information presented above, I chose to employ the following data-gathering methods in this study: (a) qualitative rich detail within self-reflective journaling (see Appendix B); (b) a modified revision of Edmondson’s (1999) quantitative psychological safety measurement tool (see Appendix C) and Raes et al.’s (2011) Short Self-Compassion Scale (see Appendix D) embedded at the conclusion of each research cycle; and (c) one-on-one interviews with participants.

Journaling

Mental models are deeply held personal assumptions, thoughts, or images that shape how people interpret a situation and their own actions (Senge, 2006). Short (1998) advocated for

inside-outside thinking, which recognizes mental models and that being right or wrong is irrelevant. Unawareness is dangerous, as assumptions can become disjointed with reality, and people can lose sight of a positive solution. Individuals who identify and verbalize what they truly feel, think, and want from a situation are able to understand what drives their responses. I applied Argyris's (1997) journaling left-hand column technique that connected the dichotomy between what I truly think and the language I use. This approach was beneficial in fostering psychological safety within my practice as the belief of speaking up, being vulnerable, and trusting is at the core of this social phenomenon. I completed daily journal reflections (see Appendix B) during work, including when on call, to allow for potential themes and concepts to present within my practice. Guest et al. (2006) explained that data saturation is reached when no additional information or themes are observed within the data. Therefore, each cycle consisted of 2 weeks of journaling to achieve data saturation potentially.

Psychological Safety Measurement Scale. Embedded within my journaling was a quantitative psychological safety measurement scale (see Appendix C). The eight-item psychological safety tool utilizes a 7-point Likert scale that I adapted from existing actionable metrics within the literature (Adair et al., 2022; Detert & Burris, 2007; Edmondson, 1999; Nembhard & Edmondson, 2006; O'Donovan et al., 2020). While these safety measurement tools explore psychological safety at the team level, I wanted to ascertain how I perceived psychological safety within my practice over the course of the inquiry conduct. This survey was intentionally reduced in items to limit fatigue, ensure the feasibility within my timeframe, and, therefore, mitigate threats to the validity of the inquiry.

Strengths. Psychological safety measurement scales stimulate learning on a team level. By regularly measuring, leaders can build a unique strategy for objectively developing and maintaining interventions to foster psychological safety within their team. Adair et al. (2022) developed psychological safety measures based on feedback from healthcare professionals and tailoring them to the healthcare environment creating increased relevance to this community. Inclusion of a psychological measurement scale within each cycle created quantifiable measurements to highlight if my perception of psychological safety, within the team, had changed based on actionable changes made within my personal practice.

Limitations. Healthcare professionals work in multiple teams with a degree of fluidity and movement of membership within each group setting (Kerrissey et al., 2023). As a result, psychological safety measurement scale recommendations may be ambiguous, and interventions may only be suitable when the team dynamic is replicated. Likewise, researchers have found survey measurements used in team settings to be vulnerable to self-report bias, have a low response rate, and be less suitable for longitudinal research due to fatigue (Donaldson & Grant-Vallone, 2002). In addition, Sasaki et al. (2002) found that psychological safety measurement scales with fewer items adapted from Edmondson's (1999) original questionnaire do not fully capture the state of psychological safety within the professional environment.

Journaling Limitations. Potential limitations of journaling include creating a self-serving process and self-deception (Hanne, 2005; Marshall & Mead, 2005). The continuous self-reflective cycle of interactions, thoughts, and behaviours runs the risk of rumination and a spiral of negative and unproductive thoughts, with minimal action on practice (Heen, 2005; Marshall & Mead, 2005). In order to mitigate this, I expanded on Argyris's (1997) journaling left-hand

column approach. I utilized Western research on emotional memory, a tool termed the “eye of the needle” (Oelklaus, n.d., para. 3). I sought to integrate my emotional and rational reasoning to aid effective communication and build trust in relationships. By “threading” (Oelklaus, n.d., para. 13) the words I might have spoken and honouring how I truly feel, I can create more authentic conversations, combat defensive routines, and build trusting relationships. In addition, mindfulness research suggests that presence is living in the moment and the ability to act in a manner that aligns with one’s values. When individuals are more aware of their thoughts, feelings, and aversions, they can better see how their actions may be harmful and how they are harmed. Subsequently, I incorporated self-compassion practice into my journaling to reduce misconceptions and negative evaluations of others in favour of myself. As a result, I aimed to understand my personal qualities, both good and bad, and employ practical behavioural steps to facilitate actionable change.

Self-Compassion Practice

Neff (2003), a pioneer in the field of self-compassion and an associate professor at the University of Texas in the Department of Educational Psychology, provided the following definition of self-compassion:

Being touched by and open to one’s own suffering, not avoiding or disconnecting from it, generating the desire to alleviate one’s suffering and to heal oneself with kindness . . . offering nonjudgmental understanding to one’s pain, inadequacies and failures, so that one’s experience is seen as part of the larger human experience. (p. 87)

Self-regulation creates a balanced state of awareness and observation of the present moment by avoiding overidentification of experiences to that of one’s self-worth and

egocentrism and creating nonjudgmental practices to improve mental health and well-being (Neff, 2003). Presence is achieved by decentring and creating a distance from self and the emotions, thoughts, and/or experiences. Self-compassion aids in moments of awareness that can be difficult to hold through three essential components: self-kindness, common humanity, and mindfulness (Neff & Germer, 2018).

Self-compassion practice has been shown to moderate the effect of self-esteem (Neff & Vork, 2009; Zessin et al., 2015) and alleviate perfectionism (Hemberg, 2017). Individuals who are self-compassionate tend to experience greater well-being (Zessin et al., 2015), self-confidence, happiness, and physical health (Neff, 2021). Self-determination theory suggests that motivation requires the innate psychological needs of autonomy, connection, and competence. Further, individuals may, as a result, have a greater sense of personal achievement (Deci & Ryan, 2000). Moè and Katz (2020) noted that self-compassionate teachers create environments conducive to positive and motivating learning styles. Therefore, fostering self-compassion in healthcare workers may assist in mentorship and team learning. Research in self-compassion practice has demonstrated positive work-related outcomes, including empathy, citizenship behaviour, and improvement in relationship quality (Glomb et al., 2011). Integrating self-compassion into my daily journaling was initially used to enhance my emotional resilience, particularly as journaling surfaced emotions that I did not anticipate through exploring psychological safety and reexperiencing past pain. Self-compassion provided me with support, kindness, and positive emotions toward myself as I learned new ways to ask myself what I needed.

Self-Compassion Scale. Due to my misgivings regarding self-compassion, I embed within my journaling a 12-item self-compassion assessment utilizing a 5-point Likert scale from Raes et al.'s (2011) research. I documented my level of self-compassion at the end of each research cycle. This quantitative measurement provided subjective data to reflect on the impact of learning this new technique.

Strengths. Neff (2003) noted that a self-compassionate measurement scale can aid individuals in assessing and increasing their self-awareness of their levels of self-compassion. While this is prone to self-report bias, utilizing the scale may allow attention to be drawn to areas of improvement. However, in a later article, Neff (2015) stated that this benefit only applies when utilizing the original self-compassionate framework (Neff, 2003), as the short-form subscales have poor reliability.

Limitations. Muris (2015) critiqued the measurement tool, stating that it should not measure uncompassionate behaviours (reversed scored); the inclusion creates an inverse association between self-compassion and psychopathology. Finally, journaling may focus on the concern for one's welfare and other interests, limiting the researcher's ability to pay attention to broader issues (Coghlan & Brydon-Miller, 2014; Hanne, 2015; Marshall & Mead, 2005). As the researcher, journaling alone may have limited the perspective to a singular view, which may have led to me being complicit in maintaining inequitable states by failing to acknowledge or act when something is detrimental. Seeking feedback and being open to new knowledge from my participants aided in mitigating this imperfection. I explored differing perspectives, experiences, and knowledge through one-on-one semi-structured, open-ended interviews to deepen my understanding.

Interviews

Perspectives are a central component of systems thinking and one of four metacognitive rules described within Cabrera et al.'s (2015) distinctions, systems, relationships, and perspectives theory. In conducting the interviews, I sought the perspectives of others. I remained open to new insights and leaned into vulnerability and accountability, which encouraged me to deepen my understanding of psychological safety and self-compassion while paying attention to broader issues outside my self-reflective practice. Marshall and Mead (2005) stated, "High quality, deeply questioning, first-person action research is greatly supported if it is held within a long-term second-person inquiry" (p. 236). Therefore, within one-on-one interviews, I sought varying perspectives through the engagement with my five participants: three feedback participants and two subject matter experts in psychological safety and well-being management.

Strengths. Synchronous interviews allow detailed narratives and stories to be shared through structured, semi-structured, or unstructured methods. Semistructured interviews enable researchers to adapt questions and probe for details as they analyze participants' verbal responses in an effort to gain rich and in-depth descriptions of the phenomena (Saldaña & Omasta, 2022). Further, nonverbal responses, such as silence, hesitation, or body posture, could be followed up and may identify hidden information to support theme development. Encouraging a two-way conversation and listening attentively builds rapport and trust within the relationship, especially when discussing complex or sensitive subjects (Saldaña & Omasta, 2022).

Limitations. While qualitative interviews offer many advantages, there are potential disadvantages, including being time-consuming and resource-intensive. Interviewee bias, such as socially desirable responses, and a lack of honesty when recalling details can result in inaccurate

and incomplete information. Further, the interviewer's personal beliefs and experiences of expectations of the study could influence responses through their demeanour and question structure. Finally, the burden on the interviewee, and particularly the emotional strain of recalling painful experiences, may lead to emotional fatigue, distress, and withdrawal.

Study Participants

Feedback Participants

I purposefully selected feedback participants to represent a range of clinical specialists within a cardiothoracic program. All feedback participants provided diverse views regarding psychological safety within the critical care setting. These individuals were familiar with the nuances of my profession and the system in which I am positioned. The feedback from participants was fundamental to the research. Although these individuals provided a small sample of voices from frontline healthcare workers in nonpositional roles, the opportunity to learn the perspectives of differing specialties and their role expectations enabled me to broaden my understanding and identify biases in my assumptions. I chose to use pseudonyms in place of the names of feedback participants (Blazing Star, Catmint, and False Indigo) to maintain confidentiality, safety, and trust for individuals to share experiences. Further detail regarding participant pseudonyms and demographics can be found at the beginning of the Findings in Chapter 4.

Inclusion Criteria. Inclusion criteria for my feedback participants required that all healthcare workers were professionals within cardiothoracic multidisciplinary teams with whom I had previously worked with (or was working with at the time of the study) within the operating room and intensive care healthcare setting. These participants included individuals I had

developed a baseline reciprocal relationship with and could potentially provide me with honest reflections based on mutual respect and trust. I asked participants for their insights and perspectives and did not recruit them for their organizational and positional expertise.

Exclusion Criteria. Exclusion criteria include nonhealthcare workers, healthcare workers who did not specialize in the cardiothoracic program, and individuals in a formal leadership position.

Subject Matter Experts

Within this research study, I was fortunate to secure two subject matter experts (SMEs) who added an additional layer to my self-reflective practice, challenging me to look deeper and become comfortable getting below the surface of thoughts and emotions. My first subject matter expert (SME-PS) included a director of psychological health and safety at a local healthcare organization who has a Doctor of Philosophy degree in clinical psychology. The alignment of SME-PS's role in creating a culture of psychological safety and protecting the well-being of staff, physicians, and volunteers enhanced our relationship through a common interest and the goal of mutual learning. In addition, SME-PS's experience and expertise in implementing the Canadian Standard for Psychological Safety (Mental Health Commission of Canada & Canadian Standards Association, 2022) within healthcare organizations was advantageous in providing knowledge that contributed to meaningful action within my leadership practice.

A second subject matter expert (SME-WB) in well-being management is a mental health first aider within a national healthcare organization, a qualified coach, and holds a Master of Science degree in organizational psychology. In addition, as a clinical perfusionist for over 20 years, SME-WB contributed tremendously to this research. Firstly, their existing knowledge of

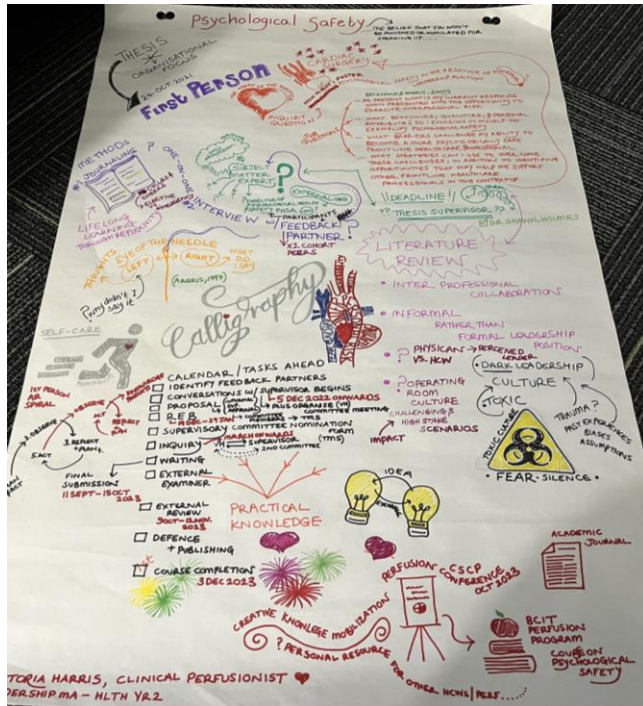
the nuances and group norms allowed for relatability and empathy while maintaining objectivity within my experiences. Secondly, their experience of the practical application of strategies to real program issues that benefit the provider led to the articulation of actionable changes to my practice within the current system. I was fortunate to have SME-WB as a mentor at the start of my perfusion career. As a result, a foundational relationship based on trust led to a generative dialogue.

Inquiry Conduct

Mapping out my thesis journey provided organization of my thoughts and an understanding of how I would conduct my inquiry from beginning to end (see Figure 2). This visual document allowed me to plan my inquiry conduct, including ethical approval, recruitment, and consent of participants, the inquiry process and timeline, and the interview process.

Figure 2

Mapping My Capstone Journey



Note. This image is the outline I created for my first-person thesis research in a visual poster format.

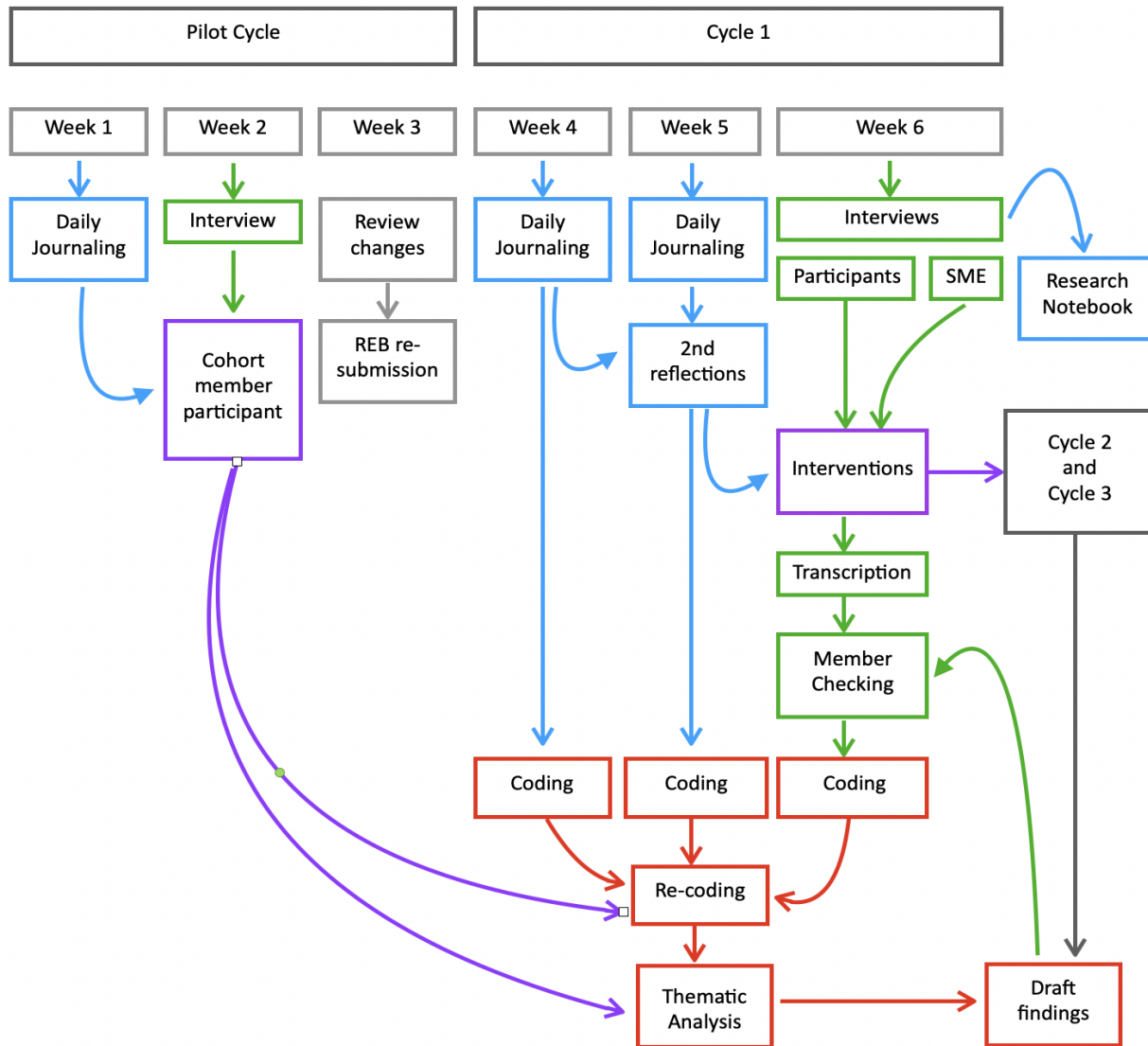
Once I had received approval from the Royal Roads University Research Ethics Board, a peer from my Master of Leadership – Health cohort electronically issued invitations (see Appendix E) and information letters (see Appendix F) to all prospective feedback participants. I requested the support of my cohort peer to reduce any emerging horizontal power dynamics due to previously established professional and personal relationships and the perceived obligation to participate. Likewise, I explicitly emphasized within these documents the voluntary nature of participation, stressed participants’ freedom to remove themselves at any time during the research, and confirmed that their choice to participate (or not) would have no bearing or impact on our future relationship. Embedded within the invitation letter was the option to not reply (within the 2-week timeline), and to honour and respect their choice not to participate, I intentionally did not follow up with these individuals, electronically or verbally. I electronically

sent invitations (see Appendices G and H) and information letters (see Appendices I and J) to both SMEs and my cohort peer. Once I had confirmed their participation, I sent each participant a consent letter (see Appendix K).

I conducted the inquiry over 12 weeks, beginning on April 3, 2023. The inquiry included four cycles, a pilot cycle and three 3-week data-generation cycles. The pilot cycle consisted of 1 week of journaling and a one-on-one interview with my cohort peer. The pilot cycle was invaluable; it allowed me to trial my journaling technique, test both Zoom and Otter.ai technology to facilitate interviews and test the wording and phrasing of my interview questions. Subsequently, in the third week, I amended my journaling style, moving away from digital journaling to cursive writing and drawing. This change allowed more creativity and separation, providing greater awareness of my thoughts, and was supported by the literature, which found stronger brain activation related to memory retrieval, visual imagery, and language retrieval of specific information during analog note-taking than in digital methods (Umejima et al., 2021). As no other changes were made, resubmission to the Royal Roads University Research Ethics Board was not required. Beginning on April 24, 2023, three cycles of 3-week data generation commenced, consisting of 2 weeks of personal journaling and 1 week of one-on-one interviews with my feedback participants and SMEs (see Figure 3).

Figure 3

Inquiry Process



Note. REB = Research Ethics Board; SME = Subject Matter Expert.

Interviews with my feedback participants consisted of three cycles that explored the current state, ideal future, and barriers and subsequent strategies to create actionable change in psychological safety in cardiothoracic programs in more depth. I moved away from seeking feedback regarding challenges I had encountered. I wanted to understand their perspective and,

therefore, reduce response bias by mitigating my interpretation, observations, feelings, judgments, and interventions of experiences. In addition, I was interested in the thoughts and experiences that participants found threatened their psychological safety, as this allowed me, through self-reflection on my practice, to identify how I display (perhaps sometimes unconsciously) these qualities. Interviews consisted of up to four open-ended questions to create a dialogue on psychological safety and how they support their mental health and well-being (see Appendix L). SMEs, however, provided feedback and coaching based on their professional practice, and together, we explored the next steps, including action items for my practice during the following cycles. All 60-minute one-on-one interviews during Weeks 6, 9, and 12 utilized the virtual Zoom platform and were subsequently recorded, encrypted, and stored on my home office computer. For accuracy, I then meticulously reviewed the auto transcription of interviews, created with Otter.ai (n.d.) technology, and returned an electronic copy to participants via email within 48 hours. Member checking acknowledges a true reflection and seeks amendments to any discrepancies in the discussion. Upon receipt of confirmed transcripts, within ten days, I imported documents to MAXQDA (n.d.), which is software created efficiently in the storage. I organized my documents to allow for my independent reflection and data analysis (Saldaña & Omasta, 2022). Immediately following interviews, I documented within my research notebook evolving perceptions, observations, key decisions, and personal introspections to create a greater depth of the interview data, improving the reliability of the research (Lincoln & Guba, 1982).

In summary, my inquiry conduct included three weeks of piloting and amendments, six weeks of self-reflective journaling, and three weeks of interviews with three feedback

participants and two SMEs. Data generation concluded on June 25, 2023, where I moved into the data analysis phase of my research.

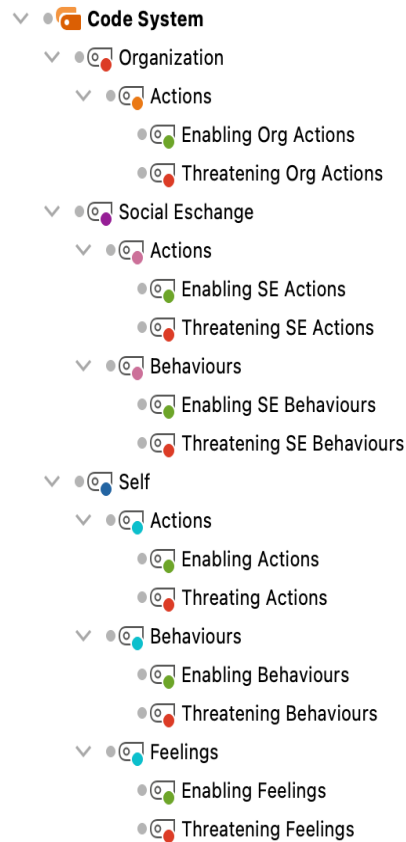
Data Analysis

Multiple data analysis frameworks can be used for qualitative research, including content (Hsieh & Shannon, 2005), narrative (Bochner & Riggs, 2014), discourse (Saldaña & Omasta, 2022), and thematic analysis (Braun & Clarke, 2006). Due to the method of inquiry, seeking multiple perspectives around psychological safety within written transcripts and personal reflections in journaling entries, thematic analysis allowed categorizations within similar topics to emerge from a pattern of ideas (Saldaña & Omasta, 2022). Therefore, I used thematic data analysis to identify themes and patterns that emerged within a mixed inductive (data)—deductive (researcher/theory) driven approach.

Braun and Clarke (2006) identified six phases of thematic analysis: familiarization, coding, themes, reviewing themes, defining and naming, and report generation. Firstly, I familiarized myself with raw data; this included the review of Otter.ai (n.d.) auto transcriptions for notable errors and shortcomings of the technology. Following member checking of the transcript, I read and reread all participant transcripts and documented my initial ideas and thoughts in my research notebook. Subsequently, I uploaded all raw data into a computer-assisted qualitative and mixed methods data software program, MAXQDA (n.d.).

After familiarization, I developed *a priori* codes ahead of engaging with the transcripts. A code is a “word or short phrase that symbolically assigns a summative, salient, essence-capturing, and/or evocative attribute for a portion of language-based or visual data” (Saldaña, 2013, p. 3). *A priori* codes are deductive codes that are developed of codes based on identifying

known factors from the literature and existing theories. After that, codes were organized hierarchically and laterally into a layered template that guided the coding of the entire dataset for theme generation. However, after coding one transcript within each cycle, I refined these codes through a data-driven inductive process. I utilized an inductive approach with the aim to minimize my preconceptions and remaining close to participants' experiences; however, acknowledging an absolute freedom from my epistemology assumptions and subjective interpretation was impossible (Saldaña & Omasta, 2022). Saldaña (2013) expressed the importance of meticulous language and reflecting human experiences while coding. Therefore, the coding became a systematic iterative process as I engaged with the dataset to capture semantic (explicitly expressed meanings from participants) and latent (conceptual meaning driven by researcher) levels of meaning. MAXQDA (n.d.) was used during the data analysis to gain insights from the qualitative dataset. I found MAXQDA (n.d.) to be advantageous during this process for the organization and categorization of codes (see Figure 4). This software allowed me to select a code to display all verbatim participant comments within one window and then add theme descriptions.

Figure 4*MAXQDA Coding*

A theme captures the patterning of meaning across the dataset (Braun & Clarke, 2006). Guest et al. (2011) identified themes as movement “beyond counting explicit words or phrases and focus on identifying and describing both implicit and explicit ideas within the data” (p. 9). I examined the tentative *a priori* themes and then redefined or disregarded them in their entirety during the analytic process. Braun and Clarke (2021) conceptualized developing *a priori* themes as analytic inputs, in which coding creates evidence to support the theme. However, theme development based on my active role, engagement, and reflexivity evolves themes denoting an analytic output (Braun & Clarke, 2021). After reviewing the themes, I created a thematic mind

map of analysis with definitions and names for each theme; this helped me visualize relationships between codes, subcodes, and themes.

Feedback from my cohort peer during this process ensured another perspective to challenge or validate my data analysis. Finally, the thematic analysis led to a series of draft findings, which I then related back to the literature and research inquiry questions to create conclusions and recommendations.

I shared the draft findings with participants to assess if the conclusions drawn illustrated and I reflected their interruptions of psychological safety and to ensure anonymity while remaining clear to the interruption of their experiences. One participant shared their worry that focusing on individual responsibility for creating psychological safety gave bullies within the system a “free pass” (Blazing Star). Likewise, another participant communicated that this might discourage frontline workers from self-reflection, as there was no accountability for those creating tremendous harm and destruction (False Indigo). I hope this is not the case. Healthcare needs more, not fewer, frontline staff to speak up, and perhaps self-reflection may be a source of power for change while supporting mental health and well-being.

Validity

Lincoln et al. (2018) discussed the goodness of research and the importance of demonstrating rigour and integrity that can be acted upon or implemented. Quantitative researchers consider validity and reliability essential criteria; in turn, qualitative research seeks trustworthiness and authenticity. Reliability implies the method’s stability of the method is replicable (Moon & Blackman, 2014; Yilmaz, 2013), and the same data are consistently collected over time within groups. Validity is the accuracy of the measurement and whether it

reflects what it was intended to measure (Golafshani, 2003; Maul, 2018; Yilmaz, 2013).

Authenticity and trustworthiness imply that the study and conclusions drawn are credible, reflecting the researcher's and participant's social experiences (Given, 2008; Yilmaz, 2013). To ensure the inquiry findings are worthy of recognition, the four domains of trustworthiness, including confirmability, transferability, dependability and credibility (Lincoln & Guba, 1982) and the four types of authenticity, namely ontological, educative, tactical, and catalytic (Tobin & Begley, 2004) require attention.

Confirmability, in the preference for objectivity, reflects participants' findings rather than the researcher's voice. Reflexivity is the explicit documentation of the researcher's role within the content, identifying biases and what led them to be involved and take an interest in the research (Bradbury et al., 2019; Lincoln et al., 2018). Throughout the research and analysis, I maintained a research notebook to acknowledge assumptions and biases throughout the interview process. The research notebook allowed subjective reflection on action, further depth to the interview data, and an audit trail of my reasoning, heightening the transparency of the process. While I did not include information from this source as part of the data generation, I found it helped with the analysis.

Transferability, in preference to generalizability, is the relatability of findings to other situations and environments (Lincoln & Guba, 1982). While qualitative research is specific to a small group, providing a rich contextual description of the inquiry conduct may enable others to transfer the conclusion to other situations (Given, 2008). Method limitations have been articulated alongside their potential effects, and thick descriptive documentation of the data and findings may allow comparisons to be made.

Dependability, in preference to reliability, allows future researchers to reproduce the same process through the precise documentation of the systematic and transparent approach. As a result, I have included meticulous detail of data generation and the actionable change that was identified within my practice, known as an audit trail (Golafshani, 2003; Shenton, 2004). Finally, the limitations of the inquiry process are documented in Chapter 5 (Shenton, 2004).

Credibility, in preference to validity, is the confidence that the research has accurately recorded the phenomenon and aligns with participants' experiences. The research provisions included acknowledging my personal connections and methodological orientation within the inquiry topic. In addition, triangulation (Shenton, 2004) of both qualitative narrative and quantitative surveys within my journaling reduced the effects of research bias. Through member checking, I provided participants with their transcripts to ensure a true reflection of the interview, and, as appropriate, anonymized verbatim comments were embedded within study findings in Chapter 4 (Shenton, 2004).

Ontological authenticity is the ability of participants to acquire knowledge and demonstrate a more sophisticated understanding of the phenomenon being studied (Amin, 2020; Shannon & Hambacher, 2014; Tobin & Begley, 2004). Educative authenticity is the extent to which participants appreciate, respect, and have an enhanced understanding of others and their viewpoints. Catalytic authenticity is verified by the stimulation and facilitation of action and tactical authenticity is the degree of participant empowerment. Approaching authenticity within first-person-focused research requires me to explore my approach to learning. Coghlan (2008) described the four transcendental precepts of "being *attentive* to the data, being *intelligent* in inquiry, being *reasonable* in making judgements, and being *responsible* in decisions and in

taking moment-to-moment action” (p. 362). I questioned my thoughts, feelings, and subjectively within my inquiry and asked myself, what prevents me from behaving differently? Likewise, I explored what judgements I made and why throughout the research process within my research notebook.

Ethical Implications

I received approval for a harmonized minimal risk behavioural study from the Royal Roads University Research Ethics Board on March 25, 2023. The ethical review policy protects participants within the research, fosters academic integrity, and is a responsibility to the broader community and researcher that may be affected by the results. This study maintained adherence and protection of the three core principles of respect for persons, concern for welfare, and justice as per the *Tri-Council Policy Statement: Ethical Conduct for Research Involving Humans* (Canadian Institutes of Health Research et al., 2018).

Respect for Persons

Respect for persons “recognizes the intrinsic value of human beings and the respect and consideration that they are due” (Canadian Institutes of Health Research et al., 2018, p. 6). Participants were not data sets to be collected but gifts to be honoured as they contributed to knowledge generation within the inquiry. Participants received an email invitation (see Appendices E, G, and H), including an information letter (see Appendices F, I, and J) that highlighted the purpose of the inquiry, anticipated commitment requirements, potential benefits, and foreseeable risks of participation. In addition, these documents described my responsibility, transparency, and accountability as the researcher to uphold the ethical conduct of research. I respected individuals’ autonomy to deliberate on their decisions to participate and sought their

free, informed, and ongoing consent only if they chose to take part (see Appendix K). As a result, throughout the inquiry, I informed all participants and the Research Ethics Board of any changes in the research process. I provided participants with all information that may affect them and their decision to participate in this research.

Concern for Welfare

Concern for welfare “is the quality of that person’s experience of life in all its aspects. Welfare consists of the impact on individuals of factors such as their physical, mental and spiritual health, as well as their physical, economic and social circumstances” (Canadian Institutes of Health Research et al., 2018, p. 7). Due to the nature of qualitative research and the vulnerability within this inquiry, participants were not pressured to disclose specifics they did not wish to share or felt uncomfortable sharing. I honoured my participants in this process by always ensuring their privacy and confidentiality of information. To support all participants, I ensured that information regarding the free counselling service at Royal Roads University was made available. For my own wellness, I incorporated activities I enjoy, including running and calligraphy writing, into my weekly routines. To foster self-compassion, I asked myself, in moments of struggle, how would I treat a good friend in the same scenario?

Justice

Justice is the responsibility to treat everyone fairly and equally during the research process (Canadian Institutes of Health Research et al., 2018). I recruited participants based on inclusion criteria established by research questions, and I did not inappropriately exclude individuals based on race, gender, ethnicity, and disability. Likewise, an equal opportunity to participate in the research created diverse perspectives, which helps ensure the research

outcomes are impactful and innovative. Therefore, feedback participants reflected the diversity amongst the cardiothoracic multidisciplinary team. I informed all participants of the potential benefits and risks of participation. Likewise, I disclosed benefits as the researcher, situated in a position of power within this relationship. For example, through the successful completion of the research, I shall obtain my Master of Leadership – Health degree. Finally, the publication of findings from this thesis provides the availability of knowledge generation for the greater community.

Outputs and Knowledge Mobilization

Within this research, I created three knowledge outputs. Firstly, by preparing and publishing a thesis paper, I aim to contribute to the literature on psychological safety within cardiothoracic programs in healthcare, how it intersects with current literature, and supports transformational change. As a result, I will complete the requirements for a Master of Arts in Leadership – Health degree. Secondly, I intend to empower, engage, and support other healthcare workers directly impacted by this phenomenon. In addition to fostering psychological safety within my practice and continuously reflecting on my leadership development journey, I generated a meaningful product that may support others. I created a short self-reflective package (see Appendix M) to assist busy cardiothoracic healthcare professionals in nonpositional leadership roles to support their emotional intelligence, mental health, and well-being. I believe healthcare workers prioritize their patients over themselves, often due to the fast-paced, high-stakes environments in which they work. Through this resource, I hope to support healthcare workers in these complex adaptive environments, while fostering psychological safety within themselves, their teams, their programs, and organizations. Finally, I will share my experience

and insights with others within my specialty by presenting at the 2023 Canadian Society of Clinical Perfusion annual conference with an invitation to my feedback participants and SMEs.

Contribution and Application

Being a leader is a great responsibility, one that requires strength, creativity, and discipline. It is an evolving practice requiring lifelong commitment to learning and continued individual and team growth. This thesis contributed to my learning through reflexivity, deep self-awareness, and vulnerability to explore assumptions, mental models, and biases within my practice. Through creating relationships, I fostered and promoted a reflective discourse that (I hope) encouraged mutual understanding, inclusive solutions, and shared responsibility within the dynamic of team learning (Kaner et al., 2014). Finally, insights can be applied more broadly to support other individuals, teams, and professions (Bradbury et al., 2019) within the healthcare setting. I am committed to codeveloping a theoretical understanding of the social phenomena surrounding psychological safety, its impact, and processes to support the mental health and well-being of self and others while creating a more collaborative healthcare culture and the quality of care patients receive.

Chapter Summary

In this chapter, I identified my engaged, first-person-focused action research methodology and explained the inquiry's suitability to foster psychological safety within my practice. I discussed my selected data collection methods of self-reflective journaling and one-on-one interviews, including the benefits and potential challenges they may present. I reviewed the inquiry conduct, proposed data analysis, validation, and how I sought to mitigate biases within my research. I noted principle ethical issues and concluded with the thesis outputs and

knowledge mobilization strategies I employed, identifying how this research contributed to my leadership practice and the wider community. The next chapter presents the findings, conclusions, and the scope and limitations of this inquiry.

Chapter 4: Inquiry Project Findings and Conclusions

This chapter presents my study findings and conclusions in two separate but interrelated sections. I begin by restating my inquiry question and subquestions, identifying study methods, reviewing participant demographics, and defining pseudonyms. I then identify four findings based on thematic analysis, as detailed in Chapter 3. Subsequently, I articulate a series of study conclusions based on the findings and theoretical underpinnings reviewed in Chapter 2, reflecting my research questions. Finally, I discuss the intended scope of the study, and its limitations including irregularities explored and key learnings documented.

The purpose of this engaged first-person-focused action research thesis was to identify and articulate actionable changes I could make within my own professional practice to support a psychologically safe working environment. I examined the following principal inquiry question: How might I foster psychological safety as a frontline healthcare professional in a nonpositional leadership role to strengthen my mental health and well-being and the quality of care patients receive within the context of a cardiothoracic program? I also explored the following four subquestions to evoke curiosity and reflective dialogue that guided me in answering my principal inquiry question:

1. How do I currently display psychological safety practices within the cardiothoracic program that support my mental health and well-being and enhance the quality of care patients receive?
2. What does psychological safety look like within the cardiothoracic program?
3. What barriers challenge my ability to become a more psychologically safe frontline healthcare professional?

4. What strategies can I use to overcome these challenges and what opportunities might help me and support other healthcare professionals in nonpositional leadership roles?

As I embarked on answering these research questions, I utilized daily self-reflective journaling over the course of six weeks, divided into three two-week cycles. In addition, I embedded a quantitative psychological safety measurement tool (Edmondson, 1999) and a self-compassion scale (Raes et al., 2011) in the conclusion of each cycle. Between each research cycle, a total of 15 one-on-one interviews with feedback participants and SMEs provided alternative perspectives, encouraging me to deepen my self-awareness, challenge my assumptions, and explore wider issues outside my self-reflective practice.

Study Participants 'Demographics and Pseudonyms

As noted in Chapter 3, a total of six participants took part in this research. For each of the research cycles, I explored three perspectives: those of the three feedback participants (Blazing Star, Catmint, and False Indigo), the two subject matter experts (SME-PS and SME-WB), and my own views as the primary participant (VH). Feedback participants were frontline healthcare professionals recruited from cardiothoracic programs and included three diverse disciplines: perfusion ($n = 1$), nursing ($n = 1$), and physician ($n = 1$). Female feedback participants represented 67% ($n = 2$) of the study demographic and two thirds of participants live and work in BC. All feedback participants, including my role as the primary participant (VH), currently or previously have worked within the same cardiothoracic program in BC. Feedback participants identified themselves as senior team members during interviews and have over 15 years of work experience in cardiothoracic programs.

I chose to use pseudonyms in place of the names of feedback participants as well as epithets to replace real names of people and/or organizations mentioned by participants. Deidentification was important to maintain confidentiality, safety, and trust for individuals to share experiences. I paid careful attention to the detail of pseudonyms to ensure, firstly, participants agreed to their disguised identities and, secondly, that depersonalization was not experienced (Allen & Wiles, 2016). I moved away from code numbers, as it surfaced a negative emotion, the feeling of insignificance in my role as a healthcare worker, and echoed a common negative connotation spoken on the frontline, “You are just an employee number [and replaceable]” (VH). Likewise, as one participant expressed, all you require is “a pulse and a pen” (Catmint). Therefore, participants’ pseudonyms were based on perennials in an attempt to reverse the negativity experienced in the healthcare field.

The analogy of perennials and healthcare workers offered me the opportunity to rethink the social exchanges and the resiliency of healthcare workers, particularly in psychologically unsafe environments. Perennials are resilient plants, they adapt to their environment and continue to grow and bloom. Perennials come in all shapes, colours, and fragrances; False Indigo, Catmint, and Blazing Star, each play an important part in the ecosystem. Perennials develop firm roots and supportive structures in their surrounding environment, lay dominant and invisible and suddenly emerge when the conditions are right. As healthcare workers, we can learn and grow from our experiences, valuing and discovering each other’s uniqueness, talents, and skills. Through maintaining a strong sense of identity and purpose, and the investment in relationships and connections with others we can challenge the way we approach psychological safety.

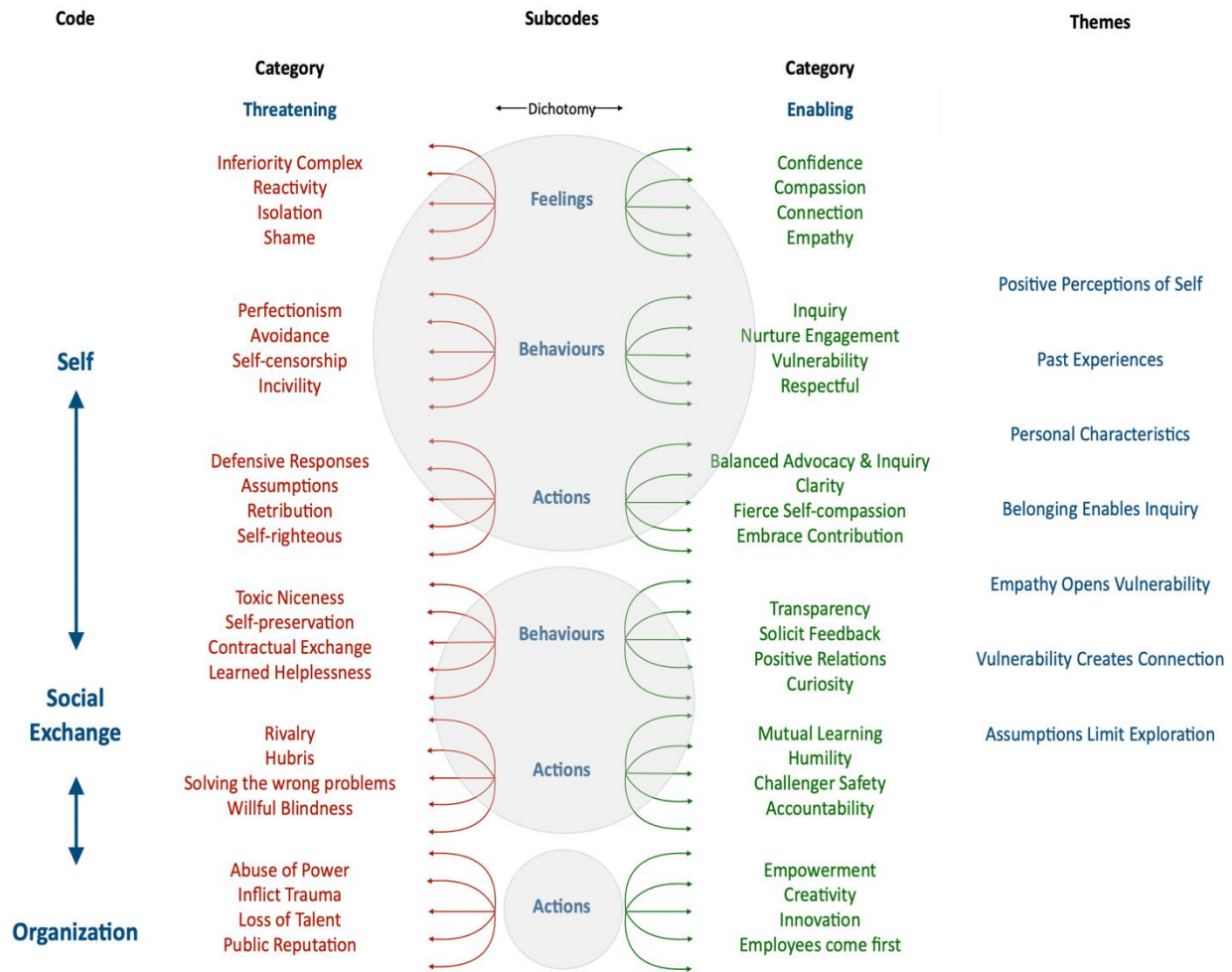
Study Findings

As previously described in Chapter 3, I utilized thematic analysis to identify patterns of meaning across the dataset: it was structured but flexible in approach to support my entry level of experience in this practice. Study findings have been actively developed through an iterative engagement process with the narrative data set, my interpretive framework, and philosophical assumptions. Figure 5 illustrates the final template created for the dataset divided into codes, subcodes, categories, and subcategories (illustrated in black and blue text). The template allowed the movement from broader patterns to precise meaning within the dataset. Embedded within the template is a summary of relevant findings (red and green text) and six latent and semantic themes related to self, social exchange, and organizational interactions. The template can be used as a map of guidance throughout the subsequent findings. Based on the data generated, I developed the following four findings:

1. My self-esteem affects the level of inclusion I create in my relationships.
2. Emotional awareness promotes a foundation for respectful interactions.
3. Self-compassion leads to better self-awareness.
4. My assumptions contribute to some of my most heated debates.

Figure 5

Thematic Analysis of Dataset



Finding 1: My Self-Esteem Affects the Level of Inclusion I Create in My Relationships

In this finding, I discuss how my low self-esteem created a lack of confidence in my abilities and negatively impacted my engagement with others. I explore feedback participants’ insights on the importance of trust to nurture relationships and articulate actionable changes I made within my practice, generated with my SMEs’ support to foster psychological safety within my professional relationships. This finding supports the themes of positive perceptions of self, past experiences, personal characteristics, and that vulnerability creates connection.

Self-esteem has been defined as “an individual’s subjective evaluation of her or his worth as a person” (Donnellan et al., 2011, p. 718). In reviewing my journal entries, I found that negative feelings often surfaced when I engaged with individuals in positions of power, which subsequently impacted my self-esteem. I wrote about my trepidation at the thought of having patient-related conversations with people at the top of the medical hierarchy, physicians. During these interactions, when I felt my information was rejected, insecurity and self-doubt escalated, and the quality of the conversations deteriorated. As a result, the impact on my behaviour became defensive, leading to judgemental statements and an exchange of personal attacks, albeit justified as a “professional discussion.” Subsequently, I experienced consuming rumination of the interaction, negative judgements, and assigning blame to the other individual. To protect myself from this perceived threat against my self-concept, I resorted to avoidance, self-censoring, and accommodating patterns of engagement or assertively advocating my point in these interactions.

My journal reflected a common knot of feelings within my emotional wheel in both my forceful engagement and avoidance of other team members. Strong reactive feelings of frustration and anger masked my grief, fear, and shame (see Figure 6). I felt there was a lack of recognition of my knowledge and abilities, creating a strong sense of purposelessness in my role. I desired the feelings of inclusion, belonging, and connection within the team.

other individuals in current interactions?” As I explored historical experiences, I uncovered my embarrassment of having dyslexia.

Throughout my academic and professional career, dyslexia has caused me great shame, leading me to question my abilities. I would go to great lengths to ensure this was not apparent in my academic life, including hours of studying to deepen my understanding of concepts until I fully understood them. Dyslexia has fuelled my current degree of perfectionism to ultimately protect myself by minimizing discomfort, resulting in hypercritical judgements of myself and others. Perfectionism has limited my ability to gain control of the situation. As I try to earn approval from myself and my colleagues, I rarely experience a sense of success and acceptance. Failure to meet expectations and criticism has led to a lack of confidence and debilitated my sense of achievement.

I wanted to understand if feedback participants found that individuals in positions of power created similar challenges for them and in their relationships. All feedback participants agreed that actual or perceived positions of power created a hesitation but did not limit their ability to speak up about matters about patient care (Blazing Star; Catmint; False Indigo). However, their distrust and the belief that speaking up regarding interpersonal conflict would lead to negative repercussions (Blazing Star) or aggressive communication styles (Catmint; False Indigo) created the most significant barriers to achieving connection. Blazing Star expressed fear that acts of vulnerability, such as clarifying expectations within the operating room, would be used against them as “recrimination and a form of intimidation or bullying.” Further, one participant described the loss of trust through previous traumatic experiences within an abusive professional relationship had led to feelings of self-doubt and disbelief of the organization’s

accountability: “You kind of question, like, why would I let that happen? What was so wrong with me? . . . That was allowed to happen, and creates a whole distrust in the system” (Catmint). These insights highlighted that feelings of trust are vital for creating engagement between individuals and teams. Trust within relationships creates connections and a platform for communication. Individuals who experience feelings of trust within a professional relationship believe their perspectives are valued (False Indigo) and appreciated and they perceive a positive intent of others’ actions when information is shared.

Finally, engagement with my SMEs allowed me to discuss practical actions to foster confidence and trust in myself and in my relationships, including low-stakes interactions, vulnerable acts, and creativity. Firstly, I found, as one SME pointed out, intentionally connecting with team members in low-stakes, voluntary interactions (SME-PS) to discover interests and find common ground creates inclusion. Movement from necessary and contractual professional exchanges to positive relationships, which occurred when genuine respect and kindness were established, supported future high-stakes interactions. Secondly, and perhaps counterintuitively, I found I can be more vulnerable and expose myself emotionally within relationships. For example, by expressing my “dyslexic tendencies” (VH) to colleagues and sharing information I value as vulnerable to another person’s actions, I build rapport and foster trust. Further, I gain more strength as I now own dyslexia: therefore, this does not require behaviours that bolster my own confidence at the expense of others, creating further distance from the connection I desire. Finally, learning is a highly individual process. Sharing my knowledge through illustrations, utilizing my creative skills, and drawing my understanding of the spoken words creates clarity and confidence in my practice. Further, this has the dual benefit of creating “space for greater

understanding and learning within these relationships” (SME-WB). Embracing this quality has illuminated that my creativity is an asset in my ability to connect and engage with others in the workplace, particularly through teaching.

In this finding, I have identified how positive perceptions of self and confidence in my practice, builds self-trust, simulates my creativity, and safely promotes vulnerability in my practice. I can create connections through social bonding and build inclusion to foster psychological safety, particularly within the learning environment.

Finding 2: Emotional Awareness Promotes a Foundation for Respectful Interactions

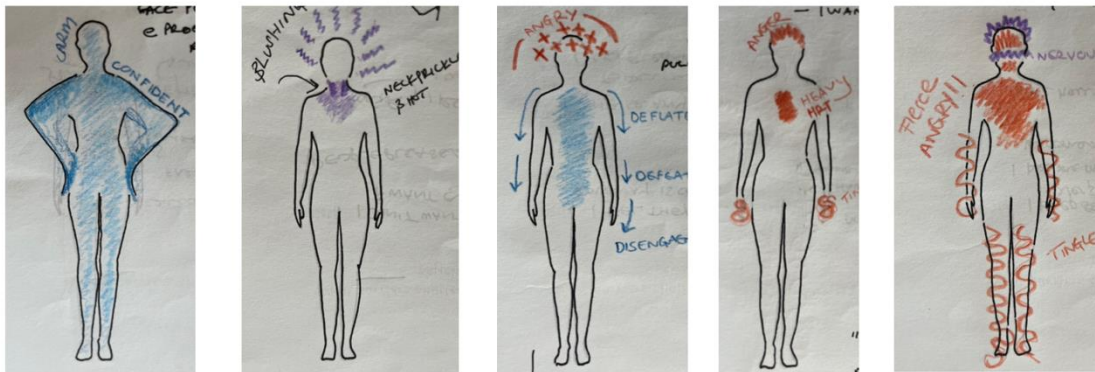
In this finding, I explore the awareness of my emotions and the ability to gain greater control of my actions. The learning environment within cardiothoracic programs presents a complex challenge: providing quality patient care, mentoring, learning, and the collaboration of multiple specialties, albeit under the most responsible physician. I also review the importance of soliciting feedback while mentoring, inquiring into others’ perspectives to invite inclusion, modelling humility to demonstrate learning without fear, and receiving feedback with kindness and gratitude. This finding supports the themes of positive perceptions of self, belonging enables inquiry, empathy opens vulnerability, and vulnerability creates connection.

In situations when I was mentoring and providing in-the-moment peer education on extracorporeal technology, I felt safe as I engaged in these relationships, and I experienced feelings of connection, joy, and passion. These emotions filled my body in a calm, cool blue wave that I depicted in a confident superwoman pose (see Figure 7). During interactions that threatened my self-esteem, I experienced overwhelming emotions that were heavy and centralized in my head and heart, tingling down to my fingertips. Monitoring my feelings and the

awareness of the connection of my emotions within my body allowed me to gain greater control of my actions and behaviours, helping me to remain curious and agile in my engagement with others in the moment.

Figure 7

Connecting Emotions and Body Sensations



Examining my behaviours in times when I felt safe illuminated actions of inquiry and inclusion. In one entry, I wrote about how I solicited feedback and asked, “Is there anything that I could have done better for you? Do you have any feedback to make it a more enjoyable or perhaps beneficial experience?” (VH). On reflection, I sought reassurance: “I’m doing a good job, aren’t I?” (VH). Cooley (2017) coined the term *the looking-glass self*, the realization that I base my sense of self on how I believe others see me. I look to others for their assessment, which temporarily satisfies my need to feel significant—a selfish behaviour within the teacher–student relationship. Further, SME-WB reminded me that seeking external validation builds the belief that an individual’s worthiness is contingent on what others think of them. Rather than seeking approval and appreciation from others, I need to give that to myself. These conversations allowed me to reflect on how childhood attachments and the coping styles I employed to

maintain these relationships have been the template for how I approach my working relationships.

SME-PS helped me identify actionable changes I could make when soliciting feedback, including neutral words and asking questions that create an active challenge or provide new information within my invitation for feedback which fosters a learning environment. For example, I could ask, “What could I have done differently?” (SME-PS). Posing this question models vulnerability as it invites a different perspective and respect toward others’ insights within my relationships. Perhaps, more importantly, developing my ability to embrace constructive feedback and not perceiving it as a threat would benefit me in high-stakes interactions. Subsequently, during the review of an event on cardiopulmonary bypass, I was offered the opportunity to experiment with this phrase with a physician. While it did not evoke the feedback I was expecting, what I believed it did was, unknowingly, create safety in the conversation, which led to subsequent vulnerable information being shared by them. As a result, I gained more knowledge that helped me understand that the feedback was not a personal attack or threat, enabling me to become more relaxed, my heart rate lowered, and I felt more empathetic. I found I could discover the reasonableness of the other person’s actions. I could acknowledge my contribution to the event and through seeking another perspective I am able to avoid misunderstandings within my interpersonal relationships through productive conversations. Exploring these conversations with genuine curiosity to seek insight enhances my ability to be humble and kind, creating a more profound sense of connection and belonging with others on the team.

Engagement with feedback participants highlighted that providing high-quality patient care is a healthcare team's primary purpose. However, multidisciplinary team learning and its benefits are an afterthought or "a utopian sort of dream" (Catmint). All feedback participants stated that peer feedback delivery is avoided, sugar-coated, or destructive. Blazing Star stated, "No one is waiting to, you know, catch you if a mistake happens or to give you really useful, constructive feedback when you don't do something correctly. It is just an opportunity for you to be beaten out." All participants articulated that feedback delivery and receipt of information are two sides of the communication coin (Blazing Star; Catmint; False Indigo). The importance of healthcare workers being "coachable" (False Indigo), receptive to others' perspectives, and acknowledging others' clinical experience (Blazing Star) impacts their subsequent actions and strengthens a culture within the team. Feedback participants had a natural tendency within our dialogues to gravitate toward the negativity experienced in relationships. Listening to these accounts was instrumental in formulating actionable changes in my behaviours to enhance psychological safety in multidisciplinary settings, including displays of humility, inquiry, kindness, and gratitude.

Areas outside my competency make me feel insecure. However, acknowledging my limitations also encourages others to learn without fear. Lacking humility and fallibility creates tension: Blazing Star said, "I may feel emboldened to correct someone who doesn't have as much experience." Therefore, demonstrating humility, admitting ignorance, and saying I don't know will reduce the social friction within these interactions. Further, actively inquiring about new knowledge demonstrates my student mindset toward learning, regardless of my actual or perceived position of power, and mobilizes the collective intelligence amongst the team.

Feedback delivered with kindness and empathy creates understanding and mutual learning that deepens connection. Likewise, it is important to receive feedback with gratitude, as displaying defensive behaviours leads to actions of hubris and rivalry, all of which break down relationships (False Indigo) and damage psychological safety.

In this finding, I identified that a sense of belonging and safety in relationships creates the confidence to engage in acts of inquiry and vulnerability within social exchanges. Furthermore, mindfulness and awareness of my emotions are crucial for developing positive intent within my communication. Fostering empathy and kindness allows for a deeper connection with others and learner safety within relationships. Learning is a never-ending process (Catmint), and incorporating a new skill of self-compassion into my practice has allowed me to understand how my self-esteem impacts my self-worth and threatens psychological safety in my relationships.

Finding 3: Self-Compassion Leads to Better Self-Awareness

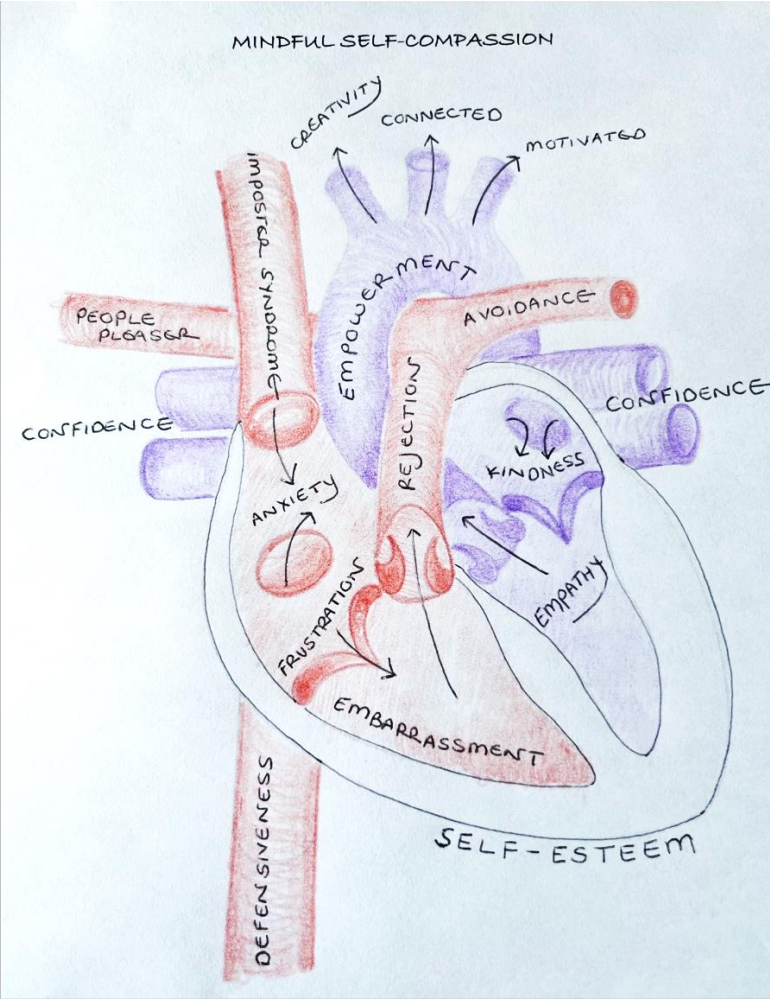
In this finding, I discuss the practice of self-compassion and its positive impact on my mental health, well-being, and connection with others. Cultivating a sense of stability, even-mindedness, and calmness in my reactions amidst challenges through equanimity allowed me to meet my reactions with balance and compassion. This practice gave me a greater perspective on the difficulties I have faced and new options available, including boundaries, stating my unmet needs, and fighting for justice. As a result, I became more creative in managing conflict and disagreements with others while maintaining connection and professionalism in our dialogues. This finding supports the themes of positive perceptions of self, past experiences, and vulnerability creates connection.

My misgivings and suspicions around self-compassion have often blocked my ability to engage in this practice. My feelings regarding the misuse of self-compassion in healthcare organizations to warrant complacency of systemic issues have further limited its potential benefits. In my journal, I wrote, “Self-compassion feels like I am excusing bad behaviour and something that shall result in me being malleable to workplace injustice. People need to be held accountable!” (VH). A mental model I hold is that individuals in positions of power dominate, manipulate, and control the healthcare environment without acknowledging their impact or the value that healthcare professionals can contribute to tackling complex challenges on the frontline. I also feel that the stoic attitude in cardiothoracic programs contributes to the resistance I feel toward self-compassion. On one occasion, I wrote about the comparison of hours individuals have worked, reflecting a “badge of honour” (VH) for the dedication to the profession, regardless of the apparent exhaustion in the team. I wrote about the reality of psychologically unsafe environments: “[This person] is a narcissist. Being self-compassionate isn’t going to change that. Anyway, the mentality in leadership is willful blindness, ignorance, protecting their reputation is paramount and determines how they will respond to concerns raised” (VH). Having an awareness of my misconceptions about self-compassion created opportunities to dismantle these barriers and experience the benefits of self-compassion. Likewise, previous feelings of resentment toward hierarchical relationships no longer serve me, particularly in new interactions, and developing new feelings about old wounds helps me understand what is and is not within my control. Exercising tender self-compassion, I asked myself, “What do I need right now, or what do I need to help alleviate my suffering?” (VH). Accepting what is out of my control and the realities of healthcare *politics* does not mean

conceding; in fact, self-compassion allows for brave, empowered clarity to protect myself from harm through standing up for what is right, a psychologically safe environment.

Figure 8

Self-Compassion Practice



My self-esteem has been in constant flux throughout my professional career. Unfortunately, in one cardiothoracic program, my self-esteem was shattered, and that experience continues to impact and shape my interactions, particularly with physicians and individuals in leadership positions. Practicing self-compassion from these encounters was difficult for me, as

the surge of emotions I felt was uncomfortable. I was fortunate to participate in a 6-week online self-compassion training workshop with the Centre for Mindful Self-Compassion. This nonprofit organization, founded in 2012 by Dr. Chris Germer and Dr. Kristin Neff (Centre for Mindful Self-Compassion, n.d.) aims to improve healthcare professionals' well-being and personal resilience. The weekly sessions aligned with the first six weeks of research generation, encompassing Cycles 1 and 2 provided structured group practices with other healthcare workers across North America and was invaluable for me in learning this new skill. Through documenting my hard feelings, soft feelings, and unmet needs, I began to develop a more profound meaning. I learned to respond to myself with kindness, common humanity, and mindfulness (see Figure 8).

Practicing self-compassion throughout this research sometimes felt formulaic and disingenuous, which led to more self-consciousness. However, I had small glimpses, feelings resembling freedom and stillness, that helped me move toward a sense of serenity and forgiveness. Evaluating my self-compassion assessment forms (Neff, 2003a; see Table 1), which I completed at the end of each research cycle, further supported this feeling. This qualitative measurement tool indicated my total self-compassion had increased by 56% throughout the research cycle, which was a huge surprise. The most remarkable improvement was seen within common humanity (60%) and directed me to areas I can work on, such as acts of mindfulness (25%). As a result, I experience more confidence in this practice; however, tailoring it to an approach that resonates with me and my medical background would be beneficial.

Table 1*Research Cycles Test Scores for the Total Self-Compassion Scale and Subscales*

Outcome	Cycle 1	Cycle 2	Cycle 3	% Change
Self-kindness	2	2.5	3	50
Self-judgment	3.5	4	2.5	28.5
Common humanity	2.5	2.5	4	60
Isolation	2.5	1	1	60
Mindfulness	2	2	2.5	25
Over-identification	4.5	4	2	55
Total SCS	2.3	2.6	3.6	56.5

Note. Based on Raes et al.'s (2011) short Self-Compassion Scale.

SCS = Self-Compassion Scale.

Negative subscale items were reverse-coded before calculating a total SCS score.

Self-compassion is not a judgment of my worth, but rather an acknowledgement that all individuals are imperfect. Self-compassion is always available to me to provide support and is less linked to social compassions within self-esteem. As such, practicing self-compassion provided a new way to relate to myself, notably when my need for high self-esteem created challenges in my relationships.

All participants agreed well-intended organizational wellness programs are ineffective (Blazing Star; Catmint; False Indigo). There is disconnection between what cardiothoracic healthcare workers need to support their mental health and well-being and what is offered by organizations. Resources were quoted as being “very limited” (Catmint), “superficial” (False Indigo), and “unsafe” (Blazing Star). Distrust in the organization and leadership teams installs the belief that wellness strategies are insensitive (Catmint), lacking insight (False Indigo), and

leads to individuals questioning the motives of organizers (Blazing Star). Further, despite organizational efforts, signs of burnout were apparent (Blazing Star; Catmint). In 2023, the World Health Organization included burnout in its International Classification of Diseases (ICD-11), describing it as an *occupational* phenomenon “resulting from chronic workplace stress that has not been successfully managed” (Description section, para. 1). A feedback participant expressed,

Different things that individuals can do for their own mental health, that’s kind of putting a band-aid on because why are [pause] why did you and I experienced a lot of mental health issues? Well that was due to some specific people and also a horrendous culture. So now it's *our responsibility* [emphasis added] to take care of our own mental health . . . save ourselves essentially. Ideally, people wouldn't be getting traumatized at hospitals.
(False Indigo)

Feedback participants’ perceptions and insights of their mental health and well-being within cardiothoracic programs has highlighted that placing the onus on employees to be resilient in psychologically unsafe environments is misinformed and lacks accountability of the organization. Resilience often comes from a painful experience, it is these conditions that need attention and asking individuals to be resilient is not tending to our needs in a supportive manner. Organizational silver bullet strategies create exhaustion, cynicism, and reduced professional efficiency. While addressing burnout as a result of interpersonal conflict feels dissatisfying, as bullies or aggressors within the system are not being held accountable for their behaviours, approaching destructive behaviours is a two-way street. Utilizing self-compassion, I practised the ability to hold composure while acknowledging the current reality. I can let go of my attachment

to control, and I can reflect on what I can do within my circle of influence as part of the complex healthcare system. With tender self-compassion, I provide myself with kindness, particularly when I need it the most. I can acknowledge, while suffering is unavoidable, I am not alone. I can give myself self-compassion not to feel better but to acknowledge that the work is hard. By providing this compassion for myself, I am better able to offer it to others in everyday moments and connect with those around me without experiencing empathy fatigue. Fierce self-compassion motivates me to create change, form clear boundaries against unwanted behaviours, and pursue corrective action to foster psychological safety and protect my mental health and well-being as well as the wellness of other healthcare workers.

In this finding, I have identified the positive attributes of incorporating a self-compassion practice to support my mental health and well-being. This technique gave me a greater perspective on difficulty and my options. As a result, I became more creative in my approach and better able to see the needs of those around me while maintaining a sense of connectedness. However, I still had some reluctance to fully immerse myself in self-compassion, which required further exploration into my values and what oriented me toward my goal of accountability.

Finding 4: My Assumptions Contribute to Some of my Most Heated Debates

In this finding, I discuss reflections from my journal that led to the identification of judgements and assumptions I held toward others. My core value of accountability provides me with guidance and authenticity as I approach my daily life and challenges. However, this has also contributed to my most heated disputes and negotiations. Acknowledging the intent and impact of my interactions depends upon the quality of my thinking and communication. As a result, the capability to remain in the discomfort of an uncomfortable conversation and explore another path

creates a healthy dialogue and the commitment to achieving team goals. This finding supports the themes of personal characteristics, vulnerability creates connection, and assumptions limit exploration.

Table 2

Left-Hand Column Technique

LHC	RHC
<i>They need to be more accountable, I'm at rounds, is he too important to attend rounds?! Do they really think it's appropriate to direct patient care remotely?? We are supposed to be a team!</i>	<i>VH: We have just had rounds; there is some uncertainty as to what the next 24–48 hrs look like. Therefore, I wanted to understand your plan.</i>
<i>That's wrong; he doesn't know what he is doing.</i>	<i>Physician: [shared plan].</i>
<i>I'll prove to him I know what I'm talking about.</i>	<i>VH: OK . . . My concern is we are now at Day 6 and evidence points to us losing our window of opportunity [states evidence].</i>
<i>Wow, seriously?! The international database is meaningless. He definitely doesn't understand this speciality, and yet he is given the lead role in this technology?!</i>	<i>Physician: That evidence is MEANINGLESS! Every patient is different.</i>
<i>Take that.</i>	<i>VH: I appreciate every patient is different but what is frustrating is the LACK OF COMMUNICATION around patient care.</i>
<i>Well if you attended rounds you wouldn't have too. The people who are caring for the patient are at the bedside versus corridor conversations.</i>	<i>Physician: I've informed multiple members of perfusion. I can't go around telling everyone.</i>

Note. LHC = left-hand column; RHC = right-hand column.

The above excerpt is an adapted reflection of my personal journal entry.

Utilizing the left-hand column (LHC) journaling technique (Argyris, 1997), I realized how my thoughts influence my actions. Through the rapid, unconscious interpretation of

information, my expectations and past experiences have led to the generation of abstract conclusions and undesirable behaviours. Table 2 illustrates how a seemingly benign and innocent conversation from Finding 1 turned into an exchange filled with intense emotions and opposing options. Examining what I wrote in the LHC illustrated three assumptions: the other person is the problem, my point of view requires no additional information, and my conclusion is accurate.

The assumptions I held reduced the likelihood of the physician and I having a productive conversation, requiring me to reframe my thinking of believing the other person was to blame. This approach helped me to reflect on what I want for myself, others, and the relationship. The sooner I recognize when a conversation begins to deteriorate, the easier it is to get it back on track.

Discussions with SME-PS revealed that a core value conflict contributed to my entrenched and stubborn position within the conversation. While clarifying my core values has provided me with guidance and authenticity as I approach my daily life and challenges, this has also heightened some of my most heated disputes and negotiations. The misalignment of my values within this situation creates a “rub” (SME-PS), and I become threatened, leading me to become defensive. However, having this greater awareness provides a red flag for me in future conversations and the opportunity to minimize emotional volatility, challenge unchecked assumptions, and engage in a respectful, empathetic, and honest discussion of the issues. SME-PS used the metaphor of “firing cannons” to reflect the exchange of judgments during our conversation. The ability to step aside and watch the cannonball land next to me and not retaliate is not always easy, but it is necessary when navigating these challenging conversations. As a result, SME-PS and I discussed three actionable enablers in defusing these cannons to create the

movement toward a common ground, patient-centred care. These enablers included emotional validation, positive intent, and granting legitimacy.

Firstly, in challenging conversations, I must attribute positive intent to others in their communication and recognize that they may be unaware of its impact. For example, when I receive a disproportionate response to a reasonable question, I can ask myself what unintended consequences I might have produced (SME-PS). This allows me to choose my actions carefully. While I may have triggered the response, the understanding that it is not personal (unless, I displayed an egregious act) means that the other person's statements do not require a defensive retort. However, I am responsible for discussing its impact, and maintaining connection through respectful communication. On the same merit, my ability to acknowledge the impact of my words on another person allows the opportunity for correction. False Indigo shared the need to remember that even though people do not intend their words to negatively impact others, it is important to acknowledge that they contributed to the challenging conversation. Secondly, the validation of feelings is critical in healthy relationships; by actively listening, I can let the other person know their experiences matter through the demonstration of empathy. For example, "I understand why you are frustrated given what you have said. I would be frustrated too if my communication was not disseminated" (SME-PS). Finally, granting legitimacy demonstrates that I acknowledge the appropriateness of another person's perspective alongside mine.

The capability of remaining in the discomfort of a challenging conversation and exploring another path creates a healthy dialogue, and which starts with me. Using the LHC technique (Argyris, 1997) establishes an awareness of my assumptions; without insight, I blame others, build artificial stories, and fuel my emotions as I fail to recognize my contribution to the

reality I am experiencing. Having the confidence and fortitude to acknowledge that I display behaviours that threaten psychological safety is the first step to correcting these patterns, opening lines of inquiry, and creating the culture I seek.

Frequently, within the interviews, feedback participants illuminated that there is an “avoidance” (Catmint) and “willful blindness” (Blazing Star; Catmint) to discussing an unspoken topic within these social exchanges at all levels within the system. This has led to solving the wrong problems and growing social friction and destructive patterns within relationships and team dynamics. The impact of previous feelings, observations, judgements, and behaviours fuels destructive interpersonal engagement cycles. Participants described subsequent encounters as “uncontainable anger” (Blazing Star), “an explosion” (False Indigo), and “a heated discussion” (Catmint), often with a firm conviction of the other person’s error or wrongdoing leading to heated exchanges between the individuals.

All participants described silence as a response to complex challenges that created a ripple effect of helplessness and resignation about the situation amongst individuals and teams. Thoughts and feelings deemed unsuitable for sharing create open secrets, back-channelled conversations, and acts of incivility through unexplored assumptions that threaten the degree of psychological safety within the program. As a result, the work environment becomes toxic. The ability to speak up about egregious and abusive behaviours needs security within the system. Sometimes, the safest approach is to remain silent (SME-PS) in that moment and reflect on the conversation with the support of other resources. All participants were aware of safe-reporting options within the system. Participants felt these systems were “untrustworthy” (Blazing Star), “ineffective” (False Indigo), and had “no level of confidentiality” (Blazing Star). However, in

contrast, one participant “felt safe” (Catmint) using these resources, although they stated it came at an expense—“a yellow dot by my name permanently now within the health authority” (Catmint). Therefore, through fierce self-compassion from Finding 3 alongside my value of accountability, I can be vigilant and guarantee my silence is not interpreted as validation, thus ensuring the crossing of boundaries for unacceptable or disrespectful behaviour is not encouraged. Likewise, within my practice, I can ask myself, how safe do I make others feel to approach me and discuss the impact of my conversations? The capability to remain in this discomfort, self-reflect, and demonstrate fallibility creates a healthy dialogue and starts with me.

In conclusion, self-reflective practice utilizing the LHC journaling technique (Argyris, 1997) identified assumptions in my thinking, illuminating false stories that impacted my feelings, emotions, behaviours, and actions toward others. Inquiry skills seek understanding, which does not mean agreement but rather achieving more meaning to engage within a healthy dialogue to make a unified commitment to creating a psychologically safe environment.

Study Conclusions

Based on the study findings presented in the previous section, and the relevant literature discussed in Chapter 2, I have developed four study conclusions to answer my inquiry question and subquestions:

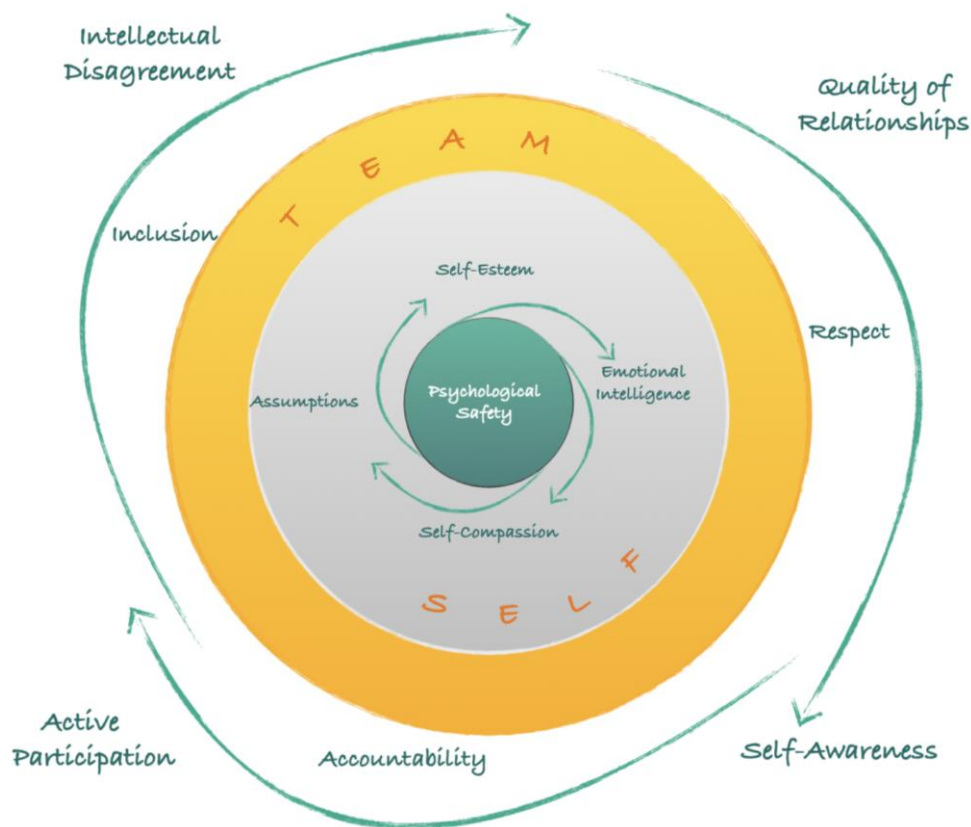
1. Psychological safety begins with self-awareness.
2. Psychological safety requires candour and inclusive acts to encourage others to contribute.
3. Psychological safety is built upon the quality of relationships and the responsibility for owning one’s experiences.

4. Intellectual disagreement is a sign of high (rather than low) psychological safety.

The interrelatedness of study findings and conclusions applies an individual perspective to psychological safety in cardiothoracic programs. As a result, my aim in this thesis was to better understand of how my own individual practices contribute to my level of psychological safety within my relationships at the team and organizational level (see Figure 9).

Figure 9

The Interrelatedness of the Study Findings and Conclusions



Conclusion 1: Psychological Safety Begins with a Self-Awareness

Examining the findings and the relevant literature made it evident that fostering psychological safety in my practice starts with self-reflection on my assumptions, mental models, and defensive routines that damage current relationships. Practicing self-compassion created a

sense of acceptance, connection, and purpose that is fundamental to my well-being. This conclusion is grounded in Findings 1, 3 and 4 above, in which I recognized that my self-esteem impacts my self-confidence and self-worth and that low self-esteem threatens psychological safety in my professional relationships.

Finding 1 illustrated the implications of my low self-esteem have created a lack of conviction in the value I contribute to the cardiothoracic program. I underestimate my contribution, hesitate, and withhold information (Argyris, 1985), particularly when I perceive a power imbalance within the relationship. Edmondson (2003a) identified that individuals who perceive their input is not explicitly needed or desired within the group limit their contributions. Individuals assess the interpersonal risk of their actions and believed consequences within the team through an internal process, termed the tacit calculus (Edmondson, 2003a). Further, Nevicka et al. (2018) identified individuals with low self-esteem who perceived narcissistic individuals as more abusive and are, therefore, more susceptible to leader psychopathy (Barelds et al., 2018). Inferiority creates a vicious cycle and stimulates silence due to the assumption that psychological safety is absent. As a result, I excluded myself from the team dynamic through a lack of confidence that affected my perception of psychological safety (Siemen et al., 2009). It made me feel powerless to change the situation. Fostering self-trust and supporting myself with compassion through challenges builds my capacity to connect with others.

Psychological safety begins at the individual level (Detert & Burris, 2007; Kark & Carmeli, 2009); personal characteristics determine whether I speak up and contribute to my ability to connect with others at the group level (Edmondson, 1999). Self-esteem is a positive evaluation of self-worth that subsequently creates negative self-evaluations, leading to social

comparisons and requiring me to feel superior to others. In contrast, self-compassion provides nonjudgmental acceptance, is less contingent on success, and acknowledges that everyone is imperfect (Neff & Germer, 2018). Tender self-compassion has supported me when I have felt inadequate, allowing me to meet my needs directly, hold pain with compassion, give myself support and encouragement, and reassure myself that I am not alone. Self-compassion creates “a state of loving, connected presence that can change our relationship with ourselves and the world around us” (Neff & Germer, 2018, p. 12). Fierce self-compassion allows me to stand up to injustice without blame or hatred toward others through brave, empowered clarity (Neff, 2021). Self-kindness provides me with the courage to seek corrective action and the wisdom of common humanity, which further emphasizes interconnectedness with others and everyone’s shared experience of suffering and the empowerment to join others in standing up for what is right. Mindfulness ensures that my self-righteousness does not distort my clarity, enabling me to speak the truth.

Finding 4 illuminated my mental models and the impact of previous suffering within a cardiothoracic program, which created defensive retorts in my communication style and behaviours that fall, to my horror, within the classification of incivility. The literature identified that the adverse effects of mistreatment persist long after the abuse has ended (Vogel & Bolino, 2020), and these individuals are susceptible to demonstrating horizontal violence. Incivility has far-reaching negative consequences, impacting performance, mental health and well-being, engagement, and communication (Rosenstein & O’Daniel, 2006) and suppressing the learning environment. Further illustrating these adverse effects, one participant shared this in regard to feedback from team members: “It’s just an opportunity for you to be beaten out” (Blazing Star).

This demonstrates that team members are attuned, indirectly and directly, to each other's behaviours, creating the stage of acceptable engagement methods within the social unit (Tyler & Lind, 1992). The trickle-down effect or echopraxia of this behaviour, both positive and negative, profoundly impacts the entire team and its culture (Liu et al., 2020; Mawritz et al., 2012; Wo et al., 2015).

I found that incorporating self-reflection and self-compassion into fostering psychological safety has been fundamental in understanding this phenomenon. Approaching psychological safety from the individual level allowed me to engage in complex challenges from a different perspective and identify how my relationship with myself impacts my interpersonal connections. This conclusion, therefore, highlights that my self-esteem acts as a barrier and challenges my ability to become a more psychologically safe frontline healthcare professional. However, I have identified a strategy to support my self-confidence, self-worth, and mental well-being—it is the importance of daily journaling. Self-reflection challenges my assumptions, and the positive attributes of self-compassion and its tenets provide me with kindness, common humanity, and mindfulness during times of self-criticism.

Conclusion 2: Psychological Safety Requires Candour and Inclusive Acts to Encourage Others to Contribute

Cardiothoracic programs require the active participation of individuals to independently nurture psychological safety to coordinate safe patient care within complex environments. Edmondson (1996) stated that psychological safety is created at the team level. Clark (2020) determined inclusion safety is the foundational stage and demographics, personality, position, or abilities do not classify inclusion. As a cardiothoracic program member, I am accepted and

valued for being part of the team, and I extend this same condition to every team member. This conclusion, grounded in all of my findings and relevant literature, identifies that active participation by every team member, regardless of position, status, or hierarchical standing, is required to build psychological safety.

Inclusion is fundamental for interactions, satisfying people's basic need to connect and providing a sense of belonging within the team. Engagement and collaboration develop supportive relationship networks within the working environment (May et al., 2004). Newman et al. (2017) identified that peer support improves psychological safety within teams while kinship promotes a sense of belonging, which can improve social resilience and well-being (Swendiman et al., 2019). Further, respectful behaviour makes individuals willing to work together, contribute, and to exchange information because there is no threat of harm or rejection and a sense of security exists within that relationship.

Benevolent organizations, such as healthcare institutions, are more susceptible to superficial collegiality, a veneer of civility covering a thick layer of fear, termed toxic niceness (Clark, 2020). When psychological safety is absent, the interpersonal dynamics fall to agreeableness, a self-preservation mode for loss avoidance, to conceal the lack of safety (Clark, 2020). Janis (1991) coined the term groupthink "a mode of thinking that people engage in when they are deeply involved in a cohesive in-group, when the members' strivings for unanimity override their motivation to realistically appraise alternative courses of action" (p. 237). This counterproductive artificial harmony results in the inability to challenge compelling individuals' statements and the status quo through fear of negative repercussions. Furthermore, all feedback participants within Finding 4 identified the notable avoidance of unspoken topics (i.e., the

elephant in the room) and a low tolerance for candour. As a result, this retreat from challenges becomes dangerous as issues cannot be debated on their merits, and the wrong problems are tackled. Exemplary followers exhibit high levels of both engagement and critical thinking (Kelley, 1988); this requires creative abrasion and constructive dissent (Clark, 2020) creating a dyadic relationship between leaders and members (Graen & Uhl-Bien, 1995).

Finding 1 highlighted my hesitation in engaging with individuals in positions of power, and my intellectual comparison limited my contribution, leading to disengagement or people-pleasing behaviours. However, the social friction continued to increase, demonstrated through a cycle of destructive interactions, and, subsequently, my sense of purposelessness led to silence and burnout. I can find my voice by being alert and attentive to these patterns of silence and conforming behaviours within myself, utilizing self-compassion, and self-reflection on my assumptions. Likewise, I can demonstrate acts of rewarded vulnerability (Clark, 2020). I can acknowledge and compliment the vulnerable acts of other team members with gratitude to encourage and support behaviours such as candour, offering different perspectives, and challenging the status quo, particularly in environments in which medical hierarchy is prominent. All findings demonstrated practicing self-compassion, building emotional intelligence, and self-reflective practice of questioning my assumptions supported my self-confidence and created opportunities for active participation, thereby contributing to psychological safety.

This conclusion, therefore, identified barriers of exclusion, including feeling silenced and experiencing diminished self-esteem that challenge my ability to become a more psychologically safe frontline healthcare professional. My research uncovered strategies, including fostering the active engagement of others through inclusive acts and acknowledging vulnerability, that

provides me with opportunities to help support other healthcare professionals in nonpositional leadership roles.

Conclusion 3: Psychological Safety is Built upon the Quality of Relationships and the Responsibility for Owning One's Experiences

Establishing trust is crucial in building positive interpersonal relationships. According to Feltman (2008), trust involves sharing something valuable in a vulnerable manner and exposing it to another person's actions. People who feel safe are more likely to demonstrate vulnerability and openly communicate their experiences. Findings 1, 2, and 4 support this conclusion, highlighting that psychological safety in cardiothoracic programs requires individuals to continuously foster trusting relationships, take responsibility for their own experiences and discomforts, and approach others' experiences with curiosity and understanding. It is essential to recognize that others' experiences differ and are separate from one's own and not try to change them.

Edmondson (2002) described psychological safety as an "individual's perceptions about the consequences of interpersonal risks in their work environment" (p. 258); this has been defined similarly by other scholars (Kahn, 1990; Schein & Bennis, 1965). Learning from failures (Carmeli & Gittell, 2009) is enhanced through positive interpersonal relationships and psychological safety mediates this learning behaviour (Edmondson, 1999). Demonstrating fallibility is a tenet of creating trust within relationships and a practical enabler of fostering psychological safety (Hirak et al., 2012; Nembhard & Edmondson, 2006; D. F. O'Leary, 2016). Finding 2 illustrated that seeking feedback from a physician, describing my experience, and listening with the intent to understand their experience allowed trust and respect to develop in the

relationship and led to reciprocal acts of vulnerability. Nembhard and Edmondson (2006) described humility as inviting others to contribute compelling others to speak up (Edmondson, 2002). Humility demonstrates a willingness to learn and grow alongside others and the relationship quality impacts the employee's shared belief in protection and support, particularly in the event of an error (Edmondson, 1996). Trust requires demonstrating good faith toward others, while psychological safety requires others to trust and give team members the benefit of the doubt (Edmondson, 2004).

In Findings 1 and 4, all feedback participants identified distrust at the individual, team, and organizational levels as barriers to speaking up, impacting staff members' ability to engage in a productive dialogue within subsequent interactions. Participants identified rebuilding trust from past experiences as a continued challenge. Kahn (1990) concluded, "Interpersonal relationships promoted psychological safety when they were supportive and trusting" (p. 708). Without rebuilding trust, how can we as a team foster psychological safety? Clark (2020) defined psychological safety in five words, "an environment of rewarded vulnerability" (p. 4); it is based upon the respect of each other and the permission team members grant one another to influence and participate in each other's experiences. Building supportive relationships through moments of inclusion and engagement creates a baseline of respect (Catmint) and a sense of identity and belonging (Blazing Star). Therefore, to earn trust, I must first extend trust. Although trust cannot be measured, I can feel it when others are actively concerned about me. Through my actions, I can communicate my willingness to trust others, showing them they can safely be vulnerable within our interactions and share their experiences authentically.

Edmondson (2012) stated, “Authentic communication about how we think or what makes us tick helps build the genuine, resilient relationships that are crucial to effective teaming” (p. 74). Further, guarded comments lead to Lencioni’s (2002) second dysfunction of a team, fear of conflict. Utilizing the LHC journaling technique during this study created greater awareness of my private thoughts and reframed my thinking into helpful information useful for productive conversation. The LHC technique demonstrated that being open and honest and describing whatever is on my mind weaponized psychological safety. Psychological safety does not grant a person permission to say whatever is on their mind in the name of authenticity. However, transparency, through describing factual experience, opens the conversation up, in contrast to personal judgements, opinions, or perceptions on observations, which limit people’s ability to engage in high-stakes conversations. Likewise, superficial congeniality (Clark, 2020), simply telling people what I think they want to hear, leads to confusion and distrust. Through this study, I learned there is an incongruence between my verbal and nonverbal behaviour. I must recognize within the same interaction that my team members and I together are all creating different experiences.

Conclusion 3 identified that while I cannot make people have a psychologically safe experience, I can strive to create a comfortable environment in which individuals feel included and safe to share their experiences, even when they differ from my own. As a frontline healthcare worker, I am responsible for my actions and experiences. I can use self-reflective practices to take ownership of my created reality and make actionable changes. Building psychological safety within cardiothoracic programs requires every individual to continuously foster trusting relationships, take responsibility for their own experiences and discomforts, and

approach others' experiences with curiosity and understanding without trying to change them while still recognizing that they are separate from their own.

Conclusion 4: Intellectual Disagreement is a Sign of High (Rather Than Low) Psychological Safety

Through examining the findings and literature, I identified that psychological safety requires the confidence to engage in intellectual disagreement. This conclusion is grounded in all of my findings. Integrating self-compassion in my practice leads to greater awareness of my assumptions, improvement in emotional intelligence, support for my self-worth, and the ability to sustain inclusive, respectful interactions. The belief that team psychological safety means I will not feel discomfort or challenged in my own thinking is misinformed. The ability to remain in the discomfort of these interactions and open to others' insights builds the group's intellectual contribution, leading to success and patient quality of care.

Interprofessional debate in cardiothoracic programs requires lateral and divergent thinking (Clark, 2020) to determine the most appropriate patient care plan. All team members hold a responsibility to help colleagues learn rather than create competition based on insecurities. Edmondson (2003a) stated that psychological safety does not imply a team without conflict. Clark (2020) further articulated constructive dissent requires high intellectual friction and low social friction to challenge and debate ideas without fear. Task-based conflict (Bradley et al., 2012) relates positively to psychological safety, whereas incivility (Rosenstein & O'Daniel, 2006), ambiguity, avoidance of accountability, and status and ego-based competition destroy communication and create a dysfunctional team (Lencioni, 2002). Interpersonal conflict impacts a team's ability to engage in ideological conflict (Lencioni, 2002), and the implications include

missed opportunities that benefit the quality of care patients receive and team members' learning. As noted in Finding 1, feedback participants highlighted that interpersonal conflict, including defensive and abrupt communication patterns, creates barriers to engagement with others and limit patient-driven conversations. While this did not lead to complete avoidance of discussing patient-related matters, it created an unstable foundation for subsequent conversation. Further, I identified that, at times, my insecurity mirrored the destructive behaviours that feedback participants had described. As a result, reflecting on these interactions created awareness of how I might threaten psychological safety due to my own self-righteousness.

In Finding 4, I identified that the ability to remain in a conversation that has become crucial requires the intent to explore another path and create a healthy dialogue centred on a common purpose. The importance of emotional intelligence (see Finding 2) in reducing defensiveness from the impact of others' language and behaviours allows for greater insight into those perspectives. The inability to allow others to challenge my viewpoint creates willful blindness in my practice. If I am not open to criticism of my thinking I risk positively self-rating my efficacy in areas of competence that would benefit from feedback and learning. Finding 4 highlighted the dangers of assumptions within my internal thoughts and, in combination with Finding 1 and the impact on my self-esteem, this limited the opportunity to engage in an intellectual discussion. Finding 2 illustrated that seeking feedback on my practice and modelling vulnerability softens my defensive responses and cultivates empathy in my practice. Opening the conversation to new perspectives adds information and understanding to the context. Rozovsky (2015) stated, "Who is on a team matters less than how the team members interact, structure their work and view their contributions" (para. 3). Psychological safety is required to feel safe to

engage in intellectual debate; however, as noted earlier, this does not mean I will not feel discomfort in the process.

I can still learn despite my years of experience in cardiothoracic programs, hard work, and professional certifications that have gained my membership within the team. Fallibility is not a detriment or indictment to my self-worth or prior achievements. The practice of self-compassion (see Finding 3) provided me with a new way to relate to myself, notably when my need for high self-esteem created challenges in my relationships. Confidence does not require that I know every decision or answer to the clinical situation; rather, it calls on me to be vulnerable, ask questions, acknowledge my limits, and seek support from my team. I can become more aware of my impact on others, contribute to building greater resilience in my practice, and inspire others to practise self-compassion. Glomb et al. (2011) demonstrated positive work-related outcomes, including empathy, citizenship behaviour, and improved relationship quality when individuals incorporated self-compassion into their routines. Further, self-compassion has been shown to moderate the effect of low self-esteem (Neff & Vork, 2009; Zessin et al., 2015) and alleviate perfectionism (Hemberg, 2017), an important balance given my predilection to that behaviour. Of note, it is crucial that self-compassion should be used to ensure safety, trust, and openness in the workplace, not to avoid confrontation and accountability at the leadership and organizational levels by putting the onus on individuals to manage toxic, exploitative or unsafe workplaces.

This conclusion addresses the primary research inquiry question and all subquestions. Enhancing my humility through seeking quality feedback within my professional relationships will continue to build psychological safety. Utilizing self-compassion will improve my resilience

and support my well-being and self-worth, mainly when my self-esteem creates defensive routines in my communication. Psychological safety in cardiothoracic programs is the ability to debate a patient's complex clinical presentation while maintaining low social friction within the multidisciplinary team. I can foster this atmosphere by demonstrating vulnerability through acts of fallibility and seeking inquiry when the impact of a conversation detracts from the team's shared purpose of quality patient care.

Scope and Limitations of the Inquiry

The intended scope of the study was to examine my practice and determine how I might foster psychological safety in nonpositional leadership within a cardiothoracic program while also strengthening my mental health, well-being, and patient quality of care. Providing an individual perspective, I explored my personal development by understanding how my characteristics play a role in building meaningful relationships as a frontline healthcare professional. It is important to note that this study explores my lived experiences, and therefore, I question the confirmability of the same findings to other individuals. However, the methods I employed could be applied and may be relatable to other frontline healthcare workers who wish to explore their respective experiences and perspectives on psychological safety, which may lead to differing outcomes. In addition to those mentioned above, this study had multiple limitations, including research paradigm uncertainty and unfamiliarity, the ambiguity of my team, and feedback participant demographics.

Reflecting on my research process, I found identifying and articulating my positionality challenging. Unfortunately, it became an afterthought during the study and may have affected the depth of meaning extrapolated and the outcome of my research. Looking back, I could have

structured my interview questions to reflect realistic concepts such as events, social constructs, and agency behaviour related to psychological safety (Brönnimann, 2021). Despite this, I reflected on my preconceptions, especially regarding individuals in positions of power within the healthcare setting. I have explicitly documented these reflections in the research to ensure empathetic neutrality (Holmes, 2020). I must be aware of areas where I may have a potential bias to ensure the trustworthiness and confirmability of research.

As a perfusionist, I work with multiple teams throughout the cardiothoracic program. Completing the psychological safety measurement scale (Edmondson, 1999) at the end of each research cycle provided me with little insight into the level of psychological safety I experienced within my teams, nor did it indicate notable changes over the nine week data generation period. It was burdensome and confusing to reflect on my interactions with different perfusion, cardiac surgery, and extracorporeal membrane oxygenation team members and assess how this contributed to the overall team level of psychological safety. However, including annotated notes on my Likert scale helped me identify relationships and interactions during the day, which aided my self-reflective practice and behaviour changes depending on the individual.

The sample size of my feedback participants was small in comparison to an organizational focused research project. However, we all had direct experiences with adverse environments, which influenced our perspectives and what constituted our belief in a psychologically safe environment. It is important to note that psychologically unsafe and toxic environments exist on a continuum, and individual mental health and well-being strategies will vary. As a researcher insider (Holmes, 2022), I can ask more meaningful and insightful questions, trusted by participants, leading to more honest answers, and produce thick

descriptions within data compared to an outsider. Being an insider allowed understanding of the intensity of these challenges more sensitively and realistically, particularly in matters about psychological safety; however, some would argue this is a disadvantage (Holmes, 2022).

Participants were seasoned healthcare workers in cardiothoracic programs, which may restrict the finding's generalizability. It is possible that the study findings may not accurately represent healthcare workers outside of cardiothoracic programs or newcomers to the environment who have fewer historical interpersonal experiences.

A gender disparity is evident within this sample, but it is worth noting that women make up 82% of healthcare workers in Canada (Khanam et al., 2022). As such, this study may represent the system in which I work. That being said, I know that male healthcare providers may face inequalities as a minority group in nonpositional roles on the frontline. As such, while the findings of this study may apply to me as a female healthcare worker, they may not be transferable to my male colleagues.

Chapter Summary

This chapter explored my perspective on fostering psychological safety as a frontline healthcare professional in cardiothoracic programs. I began by restating my inquiry question and subquestions, identifying study methods, and briefly reviewing participants' demographics and pseudonyms. Next, I presented four interrelated study findings and conclusions that reflected my research questions and academic literature. Based on the data generated, I developed the following findings:

1. My self-esteem affects the level of inclusion I create in my relationships.
2. Emotional awareness promotes a foundation for respectful interactions.

3. Self-compassion leads to better self-awareness.
4. My assumptions contribute to some of my most heated debates.

Based on the findings above and the literature reviewed, I developed the following study conclusions:

1. Psychological safety begins with self-awareness.
2. Psychological safety requires candour and inclusive acts to encourage others to contribute.
3. Psychological safety is built upon the quality of relationships and the responsibility for owning one's experiences.
4. Intellectual disagreement is a sign of high (rather than low) psychological safety..

Finally, the intended scope of the study was reviewed and limitations were explored. In Chapter 5, I close the report by synthesizing this first-person-focused action research project and identifying a set of recommendations and implications for future inquiry.

Chapter 5: Inquiry Implications

This first-person-focused action research study sought to answer the following inquiry question: How might I foster psychological safety as a frontline healthcare professional in a nonpositional leadership role to strengthen my mental health and well-being and the quality of care patients receive within the context of a cardiothoracic program? As Beckhard and Harris (2009) suggested, I crafted the following subquestions to explore the current state, ideal future, barriers, and strategies to generate change:

1. How do I currently display psychological safety practices within the cardiothoracic program that support my mental health and well-being and enhance the quality of care patients receive?
2. What does psychological safety look like within the cardiothoracic program?
3. What barriers challenge my ability to become a more psychologically safe frontline healthcare professional?
4. What strategies can I use to overcome these challenges and what opportunities might help me and support other healthcare professionals in nonpositional leadership roles?

This chapter synthesizes the literature review, study findings, and conclusions into actionable recommendations to foster within my professional practice. In addition, I explore the practical implications of this research thesis and avenues for future inquiry into psychological safety within the context of cardiothoracic programs.

Study Recommendations

The findings and conclusions from this study, supported by the academic literature, have provided valuable insight into my practice as a frontline healthcare professional. The study

highlighted how individual perceptions of self, past experiences, personal characteristics, and assumptions influence my interpersonal relationships that contribute to the overall level of psychological safety I experience. Given that this was a first-person-focused, action research study, I did not engage with an organization. However, the literature indicated that psychological safety is constructed at the group level (Atwal & Caldwell, 2005; Carmeli & Gittell, 2009; Edmondson 1996, 2003b; Hirak et al., 2012; Nembhard & Edmondson, 2006; D. F. O’Leary, 2016). Therefore, the following actionable recommendations highlight personal and leadership practice behavioural changes and suggest potential organizational implications, each discussed in its own subsection. Further, leadership practices and organizational implications offer engagement recommendations within second and third-person dynamics (Marshall & Mead, 2005; Tobert, 1999). As a healthcare worker in a nonpositional leadership role, I now better understand how leader qualities can be found in anyone, regardless of a formal title. Likewise, I create my experiences and discomforts, and, while I cannot make others have an experience of psychological safety, I can influence how others feel, create comfortable for them to express their experiences and provide an atmosphere of safety through my behaviour and actions. Based on my experiential learning, I offer three synergistic recommendations for fostering psychological safety within cardiothoracic programs. The interconnection of recommendations produces a combined effect more significant than their contribution and is therefore not ordered in the degree of priority:

1. Integrate self-reflection and self-compassion into my professional practice.
2. Balance advocacy and inquiry in my communication to generate mutual learning.
3. Create a beachhead of psychological safety.

Recommendation 1: Integrate Self-Reflection and Self-Compassion into my Professional Practice

Personal Practice. Engagement in action research offered the opportunity for my professional self-development through the refinement of my practice within practice (Denscombe, 1998). The qualitative analysis I completed in this study illustrated the complexity of interpersonal relationships and how perceptions of self, past experiences, and personal characteristics influenced my views and experiences of psychological safety within a cardiothoracic program. This research, in alignment with other scholars, highlighted individual factors that contributed to fostering psychological safety (Detert & Burris, 2007; Kahn, 1990; Kark & Carmeli, 2009; Schein & Bennis, 1965; Wekselberg, 1997; Wouters-Soomers et al., 2002). Fostering psychological safety within my relationships requires me to reflect individually, critique my behaviour, and make personalized changes. By empowering myself and recognizing my self-worth, I can create a more positive and safe environment for those around me as I am more confident in my practice and I can become curious about others' thoughts, feelings, and experiences.

Through my daily journaling practice, I have become more self-aware of how I impact others in my interactions. I have noticed moments when I experience enhanced and threatened psychological safety. Marshall and Mead (2005) identified that paying attention to one's own process and actions in the world is crucial to engaging with others respectfully and mutually, especially when power dynamics are at play. As a result of my inquiry, integrating self-compassion practice (Raes et al., 2011) and LHC reflexive journaling technique (Argyris, 1997),

I can increase my confidence while holding myself accountable for my actions, leading to a greater connection with my team members.

Through my experience with the LHC technique (Argyris, 1997), I gained a deeper understanding of the nuances of language and how they impact my relationships. I discovered how my preconceived notions and mental models could create barriers in communication, leading to disengagement and defensive behaviours. Kelley's (1988) description of the alienated follower as a critical thinker but passive in engagement resonated with me, as I recognized that I was falling into this pattern. I was losing faith in the system and engaging in destructive communication, leading to further disconnection and isolation. However, with newfound self-awareness, I have realized that I am responsible for my behaviour and actions. I have learned to be more self-compassionate and kind to myself, especially when my self-esteem is threatened.

Self-compassion is crucial for people to treat themselves with kindness and care during difficult times, just as they would treat a good friend (Neff, 2003b). This approach has helped me become my own ally and alleviate my suffering. Utilizing Neff and Germer's (2018) unmet needs practice, I have formed a new relationship with the anger from past wounds. Moreover, self-compassion helps moderate self-esteem (Neff & Vork, 2009; Zessin et al., 2015), perfectionism (Hemberg, 2017), leading to greater self-confidence, happiness, and improved physical health (Neff, 2003b) and well-being (Zessin et al., 2015). By providing this compassion for myself, I am better equipped to offer it to others in everyday moments, fostering connection and enhancing the quality of my relationships. Everyone has unique experiences within their interactions, and a self-reflective approach is essential for building inclusive relationships and creating a foundation for psychological safety within the team. Practical behavioural changes to

increase psychological safety include incorporating daily journaling into my professional practice (see Appendix M).

Leadership Practice. Leadership is a great responsibility. It is essential to prioritize the growth and potential of team members, requiring a strong sense of self-awareness and an understanding of one's behaviours and mental models (Brown, 2018). Journaling may provide a viable avenue, especially for an individual new to a leadership role. Experienced teachers who practise self-compassion have also created positive and motivating learning environments, which can be valuable for any leader (Moè & Katz, 2020). Deci and Ryan (2000) identified that self-compassionate leaders are more likely to experience personal achievement and find their psychological needs are satisfied, which can help prevent harmful leadership styles (Contreras & Espinosa, 2018; Tepper et al., 2017).

Organizational Implications. In conducting this research, I noted a lack of guidance on how healthcare workers can engage in high-stakes professional and interpersonal dialogue that acknowledges their assumptions, judgements, and mental models while supporting their self-worth. It can be challenging to navigate these conversations, especially when real or perceived power dynamics and past experiences have created distrust. However, by providing clarity and tools for effective communication, team members can create a culture of mutual respect and collaboration. Self-compassion training may be a valuable tool to support employees' overall well-being and connectedness, ensuring they feel valued while reducing burnout, the fear of failure, emotional exhaustion, and depression. Organizations can benefit from staff integrating self-awareness into individual practice, potentially reducing absenteeism and increasing productivity (Hashem & Zeinoun, 2020). Organizations might consider implementing formal

education on self-compassion and self-reflection in cardiothoracic education to teach individuals these new skills. Likewise, a greater understanding of the benefits of the new skills would help identify potential candidates with these qualities when building or expanding the team. While providing resources for developing new skills is essential, placing ownership on individuals to manage unsafe environments is not a strategy for fostering psychological safety. Self-reflective journaling is not the cure for a toxic culture; fostering a safe and supportive environment requires a concerted organizational effort.

Recommendation 2: Balance Advocacy and Inquiry in my Communication to Generate Mutual Learning

Personal Practice. Cardiothoracic programs require the interdependency of specialties across occupational boundaries to coordinate safe patient care within complex environments. It can be challenging to navigate teamwork when the competitive nature of healthcare education and individual achievement is often prioritized. Mastering my technical skills in clinical perfusion and becoming an expert highlights my competence and establishes my credibility within the team, in addition to forming a large part of my identity. However, membership within the cardiothoracic team requires collaboration and the ability to engage in productive ideological conflict (Lencioni, 2002) to determine the most appropriate patient care pathway. As noted earlier in this report, psychological safety does not imply a team without conflict (Edmondson, 2003a), and foundational concepts around teamwork must be developed within my practice. Edmondson (2012) identified that effective teamwork “occurs when people apply and combine their expertise to perform complex tasks or develop solutions to novel problems” (p. 51). By

balancing my advocacy and inquiry within the clinical setting, I can help create psychological safety that supports the development of effective teamwork.

The ambiguous nature of conflict within teams can lead to destruction or stimulate richer interactions and improved performances. As a frontline healthcare worker, I must prioritize creating psychologically safe environments where individuals feel comfortable communicating effectively (Edmondson, 2012). Bradley et al. (2012) identified that task-based conflict improves performance when teams have high levels of psychological safety. Perspectives are a central component of systems thinking and one of four metacognitive rules described within Cabrera et al.'s (2005) distinctions, systems, relationships, and perspectives theory. When it comes to understanding the perspectives of others, remaining open to new insights is crucial. Marshal and Mead (2005) affirmed that knowledge is ever-evolving through critical humility, as people continuously strive to learn more and remain open to new insights. Likewise, clarifying my perspective can promote understanding and collective learning opportunities. However, when I feel emboldened to speak up without reservation, it can damage the overall safety and restrict channels for learning. Additionally, assuming I am right and attempting to persuade others that they are wrong can create an environment where the entire team loses. It is true that speaking up and sharing information can help inform the decision-making process and contribute valuable knowledge to the collective pool of information. However, this does not change the fact that decision-making authority remains within the medical hierarchy and therefore my insight may not be applicable in the current patient care plan. To improve communication and interactions with others, I must balance healthy advocacy and inquiry to allow me to understand different perspectives, all of which are critical to prioritizing patient care.

Practical behaviour changes to increase psychological safety include (a) sharing my past mistakes, taking the opportunity to demonstrate vulnerability, and the learnings available from failure, which will encourage others to do the same; (b) crafting high-quality advocacy statements with concrete, vivid, and precise information, which will reduce misunderstanding and promote shared understanding to the conclusion I have drawn; and (c) developing high-quality inquiry questions that invite new information, such as, “What am I missing in my understanding, how do you see it?”

Leadership Practice. Individuals with greater status within the system have perceived higher levels of psychological safety (Atwal & Caldwell, 2005; Jain et al., 2016; Reese et al., 2016; Schwappach & Gehring, 2014). As such, they readily offer their knowledge and perspectives to the team discussion. Team members are highly attuned to the leader's behaviour, which sets the tone for acceptable interactions (Tyler & Lind, 1992) and forms cultural norms. As a leader, demonstrating humility and acknowledging fallibility are practical enablers of creating psychological safety (Hirak et al., 2012; Nembhard & Edmondson, 2006; D. F. O’Leary, 2016) that will encourage others to speak up and offer information. Ultimately, this approach centres the discussion on teamwork and helps reduce the boundaries between individuals and disciplines (Edmondson, 2002), which has been demonstrated to improve psychological safety (Page, 2004).

Organizational Implication. Teams need to welcome differing opinions and engage in constructive dialogue to encourage innovation and creativity. As Senge (2016) explained, organizations can limit growth by prioritizing being unified over encouraging collective inquiry. Organizations that place healthcare workers’ well-being above the institution’s reputation build

trust and commitment to patients, rather than the self-preservation strategies of employees. Moving forward, it may be beneficial for healthcare organizations to consider implementing an Employee Safety Learning System platform modelled on the current Patient Safety Learning System. It would provide a space for guided self-reflection and facilitate practical and transparent communication strategies for complex interpersonal exchanges. Fostering trust by having a neutral, independent party with expertise in organizational behaviour and an understanding of the nuances of cardiothoracic programs involved in this process would be essential. This individual would further facilitate group dialogues and simulations to enhance the team's communication ability, resolve tensions, and move to productive ideological conflict centred on patient care.

Recommendation 3: Create a Beachhead of Psychological Safety

Personal Practice. As a team member, I recognize the importance of cultivating psychological safety; I cannot be a neutral party. I must actively contribute to building an environment in which everyone feels comfortable sharing their ideas and being authentic. I understand that organizations alone cannot enhance psychological safety—they require staff members' active participation and effort. Effective leadership occurs when leaders and followers collaborate toward achieving organizational performance (Graen & Uhl-Bien, 1995). My team members and I serve a common purpose: creating a healthy, psychologically safe environment that empowers us to provide exceptional patient care (Riggio et al., 2008).

As a clinical perfusionist in the cardiothoracic program, my role and influence can vary depending on the team dynamics. I recognize the need to be mindful of my own values, biases, and assumptions when addressing psychological safety in healthcare (Potts & Brown, 2015;

Williams, 2008). As I approach the task of initiating, building or improving psychological safety, I find that a hierarchical approach from those in positions of power can create the greatest momentum and drive transformational change. However, even without such authority, I can still contribute to fostering psychological safety within my circle of influence to create meaningful change.

Personal mastery requires the discipline to continuously work toward my vision and understand the current reality to achieve success. However, I must also be aware of the structural conflict and how it can make me feel powerless and unworthy, which acts as a deterrent and may lower my goal to more realistic and appealing targets (Senge, 2006). By staying true to my values and professional vision, I can create a solid foundation for myself and approach psychological safety with greater insight and authenticity (Kouzes & Posner, 2017).

I believe strongly in the value of accountability. Accountability means taking full responsibility and ownership for my mistakes and shortcomings as a fallible human without becoming ashamed. I strive to be transparent and dependable by setting clear boundaries for myself and engaging in self-reflection to increase my awareness of how my behaviour impacts those around me. While I may encounter obstacles, I am dedicated to admitting my failures and utilizing them as opportunities for progress, growth, and self-improvement. As a cardiac frontline healthcare provider, my mission is to demonstrate acts of vulnerability, inquire into others' perspectives, and advocate my point of view while owning my experience. I will purposefully engage in challenges by fostering an environment in which everyone feels heard and ensuring a sense of belonging and inclusion. My vision is for all cardiac frontline healthcare providers to work in a psychologically safe program in which they feel empowered to

communicate and engage with interdisciplinary team members without fear of retaliation. This will free team members to focus their unique and highly specialized skills, attention, and energy on providing dedicated care to the cardiac patients and families of BC. The following is a list of practical behaviour changes that can increase psychological safety:

- Modelling vulnerability through admitting my fallibility and asking for feedback; this gives others a legitimate opportunity to help me in a meaningful way. Fallibility strengthens my relationships by making me approachable, building trust, and modelling behaviours I hope others will mirror.
- Apologize and take responsibility and accountability for my missteps; this demonstrates the value I hold within my relationships, and increases empathy and forgiveness while decreasing negative emotions.
- Acknowledge other's acts of vulnerability; this fosters connection and supports bravery, further encouraging the behaviour, limiting self-doubt and isolation.

Positional Leadership Implication. Leadership by example inspires action and change in others (Senge, 2016). Nembhard and Edmondson (2006) identified that professional status is associated with psychological safety and the belief as to how appropriate it is to speak up. As a result, psychological safety moderates for positional power and creates supportive environments to empower frontline staff to report concerns and challenges in good faith without fear of retaliation.

Organizational Implication. The Canadian Medical Association's (2023) *CMA Impact 2040* report underlined the significance of a psychologically safe workplace for healthcare professionals, noting that it can significantly improve the quality of care for patients. Research

has also indicated that psychological safety can lead to positive outcomes at both individual and organizational levels (Kark & Carmeli, 2020). Hence, it is essential to establish an environment in which healthcare workers can freely share their concerns and mistakes and provide valuable feedback about the cardiothoracic program. Ideally, this should be in a team setting. However, in the event such an environment becomes psychologically unsafe and toxic, it is crucial to have alternative options available. While respectful workplace and whistleblower policies are in place, organizations may need to appropriately address the system's challenges. Therefore, organizations should consider interventions such as trust repair with employees, consistently applying respectful workplace policies to all members, enforcing sanctions for violations when necessary, and acknowledging mistakes. Frontline staff must have the trust and confidence to speak up in a system and feel assured that their concerns will be taken seriously and investigated appropriately. Establishing a psychologically safe environment that values healthcare workers and their contributions strengthens the organization internally, enhances public reputation, and reinforces the commitment to patient care.

Implications for Future Inquiry

This study explored an individual perspective on fostering psychological safety within the healthcare environment and identified that the relationship between self-perception, self-worth, and social interaction influences individual belief in a psychologically safe environment. A sense of psychological safety is established by the quality of relationships and individual experiences within the same interaction. Future research could explore the potential dynamic and synergistic relationship between self-compassion and psychological safety and its ability to build positive relations within the social unit. It would be beneficial to have a larger, more diverse

participant sample that reflects cardiothoracic teams within a mixed-method approach. For example, measurement outcomes in addition to those within this study could include objective observational behavioural styles (e.g., eye contact and body posture), voice stress analysis, and physiological measurements (e.g., heart rate monitoring and cortisol levels). This may present an understanding of how the intervention of a self-compassion practice can improve psychological safety within the team environment over the course of six months.

Thesis Summary and Conclusion

In this first-person-focused action inquiry, I sought to answer the question: How might I foster psychological safety as a frontline healthcare professional in a nonpositional leadership role to strengthen my mental health and well-being and the quality of care patients receive within the context of a cardiothoracic program? I began Chapter 1 by describing the significance of the inquiry, organizational context, and my connection to the topic. In Chapter 2, I explored the academic literature on asymmetrical power, interprofessional collaboration, incivility, the relational dynamics between leaders and followers, and the impact on creating psychological safety within complex healthcare settings. Chapter 3 identified the suitability of my methodology and explained the inquiry conduct in adherence to the Royal Roads University (2020) *Research Ethics Policy*. Data collection methods utilized self-reflective journaling, Edmondson's (1999) psychological safety measurement tool, Raes et al.'s (2011) self-compassionate measurement scale, and one-on-one interviews with participants. Six participants voluntarily consented, including (a) three feedback participants, who were purposefully selected to represent a diversity of clinical specialists within a cardiothoracic program; (b) two subject matter experts in psychological safety and well-being management; and (c) me as the primary participant.

Thematic analysis of the dataset generated themes that captured the complexities of individual's experiences of psychological safety, including (a) positive perceptions of self, (b) past experiences, (c) personal characteristics, (d) belonging enables inquiry, (e) empathy opens vulnerability, (f) vulnerability creates connection, and (g) assumptions limit exploration. In Chapter 4, I presented four interrelated study findings and conclusions that reflect my research questions and academic literature. Findings suggested that self-reflection, emotional intelligence, and self-compassion can enhance individual awareness of positive attributes, contributing to a sense of belonging and connectedness at the group level. Based on the data generated, I developed the following four findings:

1. My self-esteem affects the level of inclusion I create in my relationships.
2. Emotional awareness promotes a foundation of respectful interactions.
3. Self-compassion leads to better self-awareness.
4. My assumptions contribute to some of my most heated debates.

I developed four study conclusions based on the findings listed above and the literature reviewed:

1. Psychological safety begins with self-awareness. This conclusion is grounded in Findings 1, 2, and 3, whereby understanding that my low level of self-esteem create barriers for actively fostering psychological safety.
2. Psychological safety requires candour and inclusive acts to encourage others to contribute.. This conclusion is grounded in Findings 1 and 4.
3. Psychological safety is built upon the quality of relationships and the responsibility for owning one's experiences. This conclusion is grounded in Findings 1, 2, and 4,

identifying both enablers and the barrier of distrust in creating psychologically safety within a cardiothoracic program.

4. Intellectual disagreement is a sign of high (rather than low) psychological safety. This conclusion is grounded within all Findings.

Finally, in Chapter 5, I put forward three synergistic recommendations:

1. Integrate self-reflection and self-compassion into my professional practice.
2. Balance advocacy and inquiry in my communication to generate mutual learning.
3. Create a beachhead of psychological safety.

I recommend supporting the self-empowerment and self-worth in frontline healthcare workers and encouraging their active participation to create high-quality relationships needed to stimulate psychological safety within individual practice. Thesis outputs and knowledge mobilization strategies identified how this research contributed to my leadership practice and the wider community. Finally, future research implications explored the potential dynamic and synergistic relationship between self-compassion and psychological safety.

In closing, this research has highlighted that I do not need a formal title as a frontline healthcare worker to demonstrate I am a leader or to cultivate psychological safety. The heart of the matter means having the courage and wisdom to acknowledge my fallibility and confront my biases with curiosity and kindness. As a result, I can create inclusivity, connection, and trust in every interaction and become the leader I would want to follow.

References

- Adair, K. C., Heath, A., Frye, M., Frankel, A., Proulx, J., Rehder, K., Eckert, E., Caitlin, P., Franz, B., & Bryan, S. J. (2022). The psychological safety scale of the safety, communication, operational, reliability, and engagement (SCORE) survey: A brief, diagnostic, and actionable metric for the ability to speak up in healthcare settings. *Journal of Patient Safety, 18*(6), 513–520.
<http://doi.org/10.1097/PTS.0000000000001048>
- Allen, R. S., & Wiles, J. L. (2016). A rose by any other name: Participants choosing research pseudonyms. *Qualitative Research in Psychology, 13*(2), 149–165.
<http://dx.doi.org/10.1080/14780887.2015.1133746>
- Amin, M. E. K., Nørgaard, L. S., Cavaco, A. M., Witry, M. J., Hillman, L., Cernasev, A., & Desselle, S. P. (2020). Establishing trustworthiness and authenticity in qualitative pharmacy research. *Research in Social and Administrative Pharmacy, 16*(10), 1472–1482. <https://doi.org/10.1016/j.sapharm.2020.02.005>
- Andersson, L. M., & Pearson, C. M. (1999). Tit for tat? The spiraling effect of incivility in the workplace. *The Academy of Management Review, 24*(3), 452–471.
<https://doi.org/10.5465/amr.1999.2202131>
- Argyris, C. (1985). Interventions for improving leadership effectiveness. *Journal of Management Development, 4*(5), 30–50. <https://doi.org/10.1108/eb051596>
- Argyris, C. (1997). Learning and teaching: A theory of action perspective. *Journal of Management Education, 21*(1), 9–26. <https://doi.org/10.1177/105256299702100102>

- Arnold, R. D., & Wade, J. P. (2015). A definition of systems thinking: A systems approach. *Procedia Computer Science*, *44*, 669–678. <http://doi.org/10.1016/j.procs.2015.03.050>
- Atwal, A., & Caldwell, K. (2005). Do all health and social care professionals interact equally: A study of interactions in multidisciplinary teams in the United Kingdom. *Scandinavian Journal of Caring Sciences*, *19*(3), 268–273. <https://doi.org/10.1111/j.1471-6712.2005.00338.x>
- Barelds, D. P., Wisse, B., Sanders, S., & Laurijssen, L. M. (2018). No regard for those who need it: The moderating role of follower self-esteem in the relationship between leader psychopathy and leader self-serving behavior. *Frontiers in Psychology*, *9*, 1281. <https://doi.org/10.3389/fpsyg.2018.01281>
- BC Children’s Hospital. (n.d.). *Vision, mission, values*. <http://www.bcchildrens.ca/about/vision-mission-values>
- Beckhard, R., & Harris, R. T. (2009). The change process: Why change? In W. W. Burke, D. G. Lake, & J. W. Paine (Eds.), *Organization change: A comprehensive reader* (pp. 687–698). Jossey-Bass.
- Belschak, F. D., Den Hartog, D. N., & De Hoogh, A. H. (2018). Angels and demons: The effect of ethical leadership on Machiavellian employees’ work behaviors. *Frontiers in Psychology*, *9*, 1082. <https://doi.org/10.3389/fpsyg.2018.01082>
- Bevan, H., & Henriks, G. (2021, February 1). Creating tomorrow today: Seven simple rules for leaders. *BMJ Leader*. <https://blogs.bmj.com/bmjleader/2021/02/01/creating-tomorrow-today-seven-simple-rules-for-leaders-by-helen-bevan-and-goran-henriks/>

- Bligh, M. C., & Schyns, B. (2007). Leading question: The romance lives on: Contemporary issues surrounding the romance of leadership. *Leadership, 3*(3), 343–360.
<https://doi.org/10.1177/1742715007079316>
- Bochner, A. P., & Riggs, N. A. (2014). Practicing narrative Inquiry. In P. Levy (Ed.), *The Oxford handbook of qualitative research* (pp. 195–222). Oxford University Press.
- Bradbury, H., Waddell, S., O’ Brien, K., Apgar, M., Teehankee, B., & Fazey, I. (2019). A call to action research for transformations: The times demand it. *Action Research, 17*(1), 3–10.
<https://doi.org/10.1177/1476750319829633>
- Bradley, B., Postlethwaite, B. E., Klotz, A., Hamdani, M., & Brown, K. (2012). Reaping the benefits of task conflict in teams: The critical role of team psychological safety climate. *The Journal of Applied Psychology, 97*(1), 151–158. <https://doi.org/10.1037/a0024200>
- Braun, S., Kark, R., & Wisse, B. (2018). Fifty shades of grey: Exploring the dark sides of leadership and followership. *Frontiers in Psychology, 1877*.
<https://doi.org/10.3389/fpsyg.2018.01877>
- Braun, V., & Clarke, V. (2006). Using thematic analysis in psychology. *Qualitative Research in Psychology, 3*, 77–101. <https://doi.org/10.1191/1478088706qp063oa>
- Braun, V., & Clarke, V. (2021). *Thematic analysis: A practical guide*. Sage.
- Brönnimann, A. (2022). How to phrase critical realist interview questions in applied social science research. *Journal of Critical Realism, 21*(1), 1–24.
<https://doi.org/10.1080/14767430.2021.1966719>
- Brown, B. (2018). *Dare to lead. Brave work. Tough conversations. Whole hearts*. Random House.

- Burnes, B., & Pope, R. (2007). Negative behaviours in the workplace: A study of two primary care trusts in the NHS. *International Journal of Public Sector Management*, 20(4), 285–303. <https://doi.org/10.1108/09513550710750011>
- Cabrera, D., Cabrera, L., & Powers, E. (2015). A unifying theory of systems thinking with psychosocial applications. *Systems Research and Behavioral Science*, 32, 534–545. <https://doi.org/10.1002/sres.2351>
- Canadian Institutes of Health Research, Natural Sciences and Engineering Research Council of Canada, & Social Sciences and Humanities Research Council of Canada. (2018). *Tri-council policy statement: Ethical conduct for research involving humans: TCPS2 2018*. <https://ethics.gc.ca/eng/documents/tcps2-2018-en-interactive-final.pdf>
- Canadian Medical Association. (2023, May). *CMA impact 2040: Our strategy*. https://www.cma.ca/sites/default/files/pdf/About/Impact-2040_E.pdf
- Canadian Society of Clinical Perfusion. (n.d.). *The Canadian Society of Clinical Perfusion*. <https://www.cscp.ca>
- Carmeli, A., & Gittell, J. H. (2009). High-quality relationships, psychological safety, and learning from failures in work organizations. *Journal of Organizational Behavior*, 30(6), 709–729. <https://doi.org/10.1002/job.565>
- Carsten, M. K., Uhl-Bien, M., West, B. J., Patera, J. L., & McGregor, R. (2010). Exploring social constructions of followership: A qualitative study. *The Leadership Quarterly*, 21(3), 543–562 <https://doi.org/10.1016/j.leaqua.2010.03.015>
- Center for Mindful Compassion. (n.d.). *Experience the proven power of self-compassion*. <https://centerformsc.org/>

- Clark, T. R. (2020). *The 4 stages of psychological safety: Defining the Path to Inclusion and Innovation*. Berrett-Koehler.
- Coghlan, D. (2008). Authenticity as first person practice. *Action Research*, 6(3), 351–366.
<https://doi.org/10.1177/1476750308094649>
- Coghlan, D., & Brydon-Miller, M. (2014). *The SAGE encyclopedia of action research*. SAGE.
- Contreras, F. V., & Espinosa, J. C. (2018). The blurred edge between the bright and dark side of leadership. *Espacios*, 40(7), 7–16.
<http://www.revistaespacios.com/a19v40n07/a19v40n07p07.pdf>
- Cooley, C. H. (2017). *Human nature and the social order*. Taylor & Francis.
- Crawford, J., & Daniels, M. K. (2014). Follow the leader: How does “followership” influence nurse burnout? *Nursing Management*, 45(8), 30–37.
<http://doi.org/10.1097/01.NUMA.0000451999.41720.30>
- Daflos, P. (2023, January 18). Threat, discipline, fear: The muzzling of B.C. health-care workers. *CTV News*. <https://bc.ctvnews.ca/threats-discipline-fear-the-muzzling-of-b-c-health-care-workers-1.6236966>
- Day, D. V. (2000). Leadership development. A review in context. *Leadership Quarterly*, 11(4), 581–613. [https://doi.org/10.1016/S1048-9843\(00\)00061-8](https://doi.org/10.1016/S1048-9843(00)00061-8)
- Deane, P. (2018, May 22). *A guide for interdisciplinary researchers: Adding axiology alongside ontology and epistemology*. Integration and Implementation Insights.
<https://i2insights.org/2018/05/22/axiology-and-interdisciplinarity/>

- Deci, E. L., & Ryan, R. M. (2009). The “what” and “why” of goal pursuits: Human needs and the self-determination of behaviour. *Psychological Inquiry, 11*(4), 227–268.
https://doi.org/10.1207/S15327965PLI1104_01
- DeMarco, R. F., & Roberts, S. J. (2003). Negative behaviors in nursing: Looking in the mirror and beyond. *The American Journal of Nursing, 103*(3), 113–116.
<https://www.jstor.org/stable/29745006>
- Denscombe, M. (1998). *The good research guide: For small-scale social research projects* (4th ed.). Open University Press.
- Detert, J. R., & Burris, E. R. (2007). Leadership behavior and employee voice: Is the door really open? *Academy of Management Journal, 50*(4), 869–884.
<https://doi.org/10.5465/amj.2007.26279183>
- Donaldson, S. I., & Grant-Vallone, E. J. (2022). Understanding self-report bias in organizational behaviour research. *Journal of Business and Psychology, 17*, 245–260.
<https://doi.org/10.1023/A:1019637632584>
- Donnellan, M. B., Trzesniewski, K. H., & Robins, R. W. (2011). Self-esteem: Enduring issues and controversies. In T. Chamorro-Premuzic, S. von Stumm, & A. Furnham (Eds.), *The Wiley-Blackwell handbook of individual differences* (pp. 718–746). Wiley.
- Duffy, E. (1995). Horizontal violence: A conundrum for nursing. *Journal of the Royal College of Nursing, 2*(2), 5–17. [https://doi.org/10.1016/S1322-7696\(08\)60093-1](https://doi.org/10.1016/S1322-7696(08)60093-1)
- Dunn, H. (2003). Horizontal violence among nurses in the operating room. *AORN Journal, 78*(6), 977–988. [https://doi.org/10.1016/S0001-2092\(06\)60588-7](https://doi.org/10.1016/S0001-2092(06)60588-7)

- Edmondson, A. C. (1996). Learning from mistakes is easier said than done: Group and organizational influences on the detection and correction of human error. *Journal of Organizational Behavior*, 32(1), 5–28. <https://doi.org/10.1177/0021886396321001>
- Edmondson, A. C. (1999). Psychological safety and learning behavior in work teams. *Administrative Science Quarterly*, 44(2), 350–383. <https://doi.org/10.2307/2666999>
- Edmondson, A. C. (2002). Managing the risk of learning: Psychological safety in work teams. In M. A. West, D. Tjosvold, & K. G. Smith (Eds.), *International handbook of organizational teamwork and cooperative working* (pp. 255–275). John Wiley & Sons.
- Edmondson, A. C. (2003a). Speaking up in the operating room: How team leaders promote learning in interdisciplinary action teams. *Journal of Management Studies*, 40(6), 1419–1452. <https://doi.org/10.1111/1467-6486.00386>
- Edmondson, A. C. (2003b). Managing the risk of learning: Psychological safety in work teams. In M. A. West, D. Tjosvold & K. G. Smith (Eds.), *International handbook of organizational teamwork and cooperative working* (pp. 255–275). Wiley.
- Edmondson, A. C. (2004). Psychological safety, trust, and learning in organizations: A group-level lens. In R. M. Kramer & K. S. Cook (Eds.), *Trust and distrust in organizations: Dilemmas and approaches* (pp. 239–272). Russell Sage Foundation.
- Edmondson, A. C. (2012). *Teaming: How organizations learn, innovate, and compete in the knowledge economy*. Jossey-Bass.

- Edmondson, A. C., & Lei, Z. (2014). Psychological safety: The history, renaissance, and future of an inter-personal construct. *Annual Review of Organizational Psychology and Organizational Behavior, 1*, 23–43. <https://doi.org/10.1146/annurev-orgpsych-031413-091305>
- Feltman, C. (2008). *The thin book of trust: An essential primer for building trust at work*. Thin Book Publishing.
- Ferrance, E. (2000). *Themes in education: Action research*. Brown University. <https://repository.library.brown.edu/studio/collections/1041/>
- Fraser Health. (n.d.). *About Fraser Health*. <https://www.fraserhealth.ca/about-us/about-fraser-health#.Y0MyTC2cZBw>
- Freire, P. (2020). *Toward a sociology of education*. Routledge.
- French, J. P., Raven, B., & Cartwright, D. (2010). The bases of social power. In J. Shafritz, J. Ott, & Y. Jang (Eds.), *Classics of organization theory* (7th ed., pp. 311–320). Wadsworth Publishing.
- Freshwater, D. (2000). Crosscurrents: Against cultural narration in nursing. *Journal of Advanced Nursing, 32*(2), 481–484. <https://doi.org/10.1046/j.1365-2648.2000.01499.x>
- Gelo, O., Braakmann, D., & Benetka, G. (2008). Quantitative and qualitative research: Beyond the debate. *Integrative Psychological and Behavioral Science, 42*, 266–290. <https://doi.org/10.1007/s12124-008-9078-3>
- Gergen, K. J., & Gergen, M. M. (2015). Social construction and research as action. In H. Bradbury (Ed.), *The SAGE handbook of action research* (3rd ed., pp. 401–408). SAGE.
- Given, L. M. (Ed.). (2008). *The SAGE encyclopedia of qualitative research methods*. SAGE.

- Glomb, T. M., Duffy, M. K., Bono, J. E., & Yang, T. (2011). Mindfulness at work. *Research in Personnel and Human Resources Management, 30*, 115–157.
[https://doi.org/10.1108/S0742-7301\(2011\)0000030005](https://doi.org/10.1108/S0742-7301(2011)0000030005)
- Golafshani, N. (2003). Understanding reliability and validity in qualitative research. *The Qualitative Report, 8*(4), 597–607. <https://doi.org/10.46743/2160-3715/2003.1870>
- Gorman, M. (2022, June 6). Nova Scotia Health orders workplace assessment of cardiac surgery unit amid complaints. *CBC*. <https://www.cbc.ca/news/canada/nova-scotia/nsh-cardiac-surgery-dalhousie-university-doctors-health-1.6476938>
- Graen, G. B., & Uhl-Bien, M. (1995). Relationship-based approach to leadership: Development of leader-member exchange (LMX) theory of leadership over 25 years: Applying a multi-level multi-domain perspective. *The Leadership Quarterly, 6*(2), 219–247.
[https://doi.org/10.1016/1048-9843\(95\)90036-5](https://doi.org/10.1016/1048-9843(95)90036-5)
- Greenbaum, R. L., Mawritz, M. B., Mayer, D. M., & Priesemuth, M. (2013). To act out, to withdraw, or to constructively resist? Employee reactions to supervisor abuse of customers and the moderating role of employee moral identity. *Human Relations, 66*(7), 925–950. <https://doi.org/10.1177/0018726713482992>
- Gritten, M. (2005). *The Gritten report*. The Society of Clinical Perfusion Scientists of Great Britain and Ireland. https://assets.website-files.com/5da4ad68b9d5374c5a54c71d/5da4ad68b9d537a0a854ca48_SCPS%20-%20Gritten%20Report.pdf

- Guest, G., Bunce, A., & Johnson, L. (2006). How many interviews are enough? An experiment with data saturation and variability. *Field Methods, 18*(1), 59–82.
<http://doi.org/10.1177/1525822X05279903>
- Guest, G., MacQueen, K. M., & Namey, E. E. (2011). *Applied thematic analysis*. SAGE.
- Hanne, H. (2005). About feelings in action research: An experiment in first-person inquiry. *Action Research, 3*(3), 263–278. <https://doi.org/10.1177/1476750305056002>
- Hashem, Z., & Zeinoun, P. (2020). Self-compassion explains less burnout among healthcare professionals. *Mindfulness, 11*(11), 2542–2551. <http://doi.org/10.1007/s12671-020-01469-5>
- Health Sciences Association. (n.d.). *Health Sciences Association*. <https://www.hsabc.org>
- Heen, H. (2005). About feelings in action research: An experiment in first-person inquiry. *Action Research, 3*(3), 263–278. <https://doi.org/10.1177/1476750305056002>
- Hemberg, J. (2017). The dark corner of the heart - understanding and embracing suffering as portrayed by adults. *Scandinavian Journal of Caring Sciences, 31*(4), 995–1002.
<https://dx.doi.org/10.1111/scs.12424>
- Hershkovich, O., Gilad, D., Zimlichman, E., & Kreiss, Y. (2016). Effective medical leadership in times of emergency: A perspective. *Disaster and Military Medicine, 2*, Article 4.
<http://doi.org/10.1186/s40696-016-0013-8>
- Heward, S., Hutchins, C., & Keleher, H. (2007). Organizational change—key to capacity building and effective health promotion. *Health Promotion International, 22*(2), 170–178. <https://doi.org/10.1093/heapro/dam011>

- Hirak, R., Peng, A. C., Carmeli, A., & Schaubroeck, J. M. (2012). Linking leader inclusiveness to work unit performance: The importance of psychological safety and learning from failures. *The Leadership Quarterly*, *23*(1), 107–117.
<https://doi.org/10.1016/j.leaqua.2011.11.009>
- Holmes, A. G. D. (2020). Researcher positionality – A consideration of its influence and place in qualitative research – A new research guide. *Shanlax International Journal of Education*, *8*(40), 1–10. <https://doi.org/10.34293/education.v8i4.3232>
- Hsieh, H. F., & Shannon, S. E. (2005). Three approaches to qualitative content analysis. *Qualitative Health Research*, *15*(9), 1277–1288.
<https://doi.org/10.1177/1049732305276687>
- Jackson, B., & Parry, K. (2018). *A very short, fairly interesting and reasonably cheap book about studying leadership* (3rd ed.). SAGE.
- Jain, A. K., Fennell, M. L., Chagpar, A. B., Connolly, H. K., & Nembhard, I. M. (2016). Moving toward improved teamwork in cancer care: The role of psychological safety in team communication. *Journal of Oncology Practice*, *12*(11), 1000–1011.
<http://doi.org/10.1200/JOP.2016.013300>
- Janis, I. (1991). Groupthink. In E. Griffin (Ed.), *A first look at communication theory* (pp. 235–246). McGraw Hill.
- Joint Commission. (2021). Behaviours that undermine a culture of safety. *Sentinel Event Alert*, *40*, 1–4. <https://www.jointcommission.org/-/media/tjc/documents/resources/patient-safety-topics/sentinel-event/sea-40-intimidating-disruptive-behaviors-final2.pdf>

- Kahn, W. A. (1990). Psychological conditions of personal engagement and disengagement at work. *The Academy of Management Journal*, 33(4), 692–724.
<https://doi.org/10.2307/256287>
- Kaner, S., Lind, L., Toldi, C., Fisk, S., & Gerger, D. (2014). *Facilitator's guide to participatory decision making* (3rd ed.). Jossey-Bass.
- Kara, H. (2017). *Research and evaluation for busy students and practitioners: A time-saving guide*. Policy Press.
- Kark, R., & Carmeli, A. (2009). Alive and creating: The mediating role of vitality and aliveness in the relationship between psychological safety and creative work involvement. *Journal of Organizational Behavior*, 30(6), 785–804. <https://doi.org/10.1002/job.571>
- Kelley, R. (1988). In praise of followers. *Harvard Business Review*, 66(6), 142–148.
- Kerrissey, M., Novikov, Z., Tietschert, M., Phillips, R., & Singer, S. J. (2023). The ambiguity of “we”: Perceptions of teaming in dynamic environments and their implications. *Social Science and Medicine*, 320, 115678. <https://doi.org/10.1016/j.socscimed.2023.115678>
- Khanam, F., Langevin, M., Savage, K., & Uppal, S. (2022, January 25). Women working in paid care occupations. *Statistics Canada*. <https://www150.statcan.gc.ca/n1/pub/75-006-x/2022001/article/00001-eng.htm>
- King-Jones, M. (2011). Horizontal violence and the socialization of new nurses. *Creative Nursing*, 17(2), 80–86. <http://doi.org/10.1891/1078-4535.17.2.80>
- Klann, G. (2003). *Crisis leadership: Using military lessons, organizational experiences and the power of influence to lessen the impact of chaos on the people you lead*. CCL Press.

- Klingberg, K., Gadelhak, K., Jegerlehner, S. N., Brown, A. D., Exadaktylos, A. K., & Srivastava, D. S. (2018). Bad manners in the emergency department: Incivility among doctors. *PLOS One*, *13*(3), 1–11. <https://doi.org/10.1371/journal.pone.0194933>
- Kouzes, J. M., & Posner, B. Z. (2017). *The leadership challenge: How to make extraordinary things happen in organizations* (6th ed.). Jossey-Bass.
- Lake, E. T., Narva, A. M., Holland, S., Smith, J. G., Cramer, E., Rosenbaum, K. E. F., French, R., Clark, R. R. S., & Rogowski, J. A. (2021). Hospital nurses' moral distress and mental health during COVID-19. *Journal of Advanced Nursing*, *78*(3), 799–809. <https://doi.org/10.1111/jan.15013>
- LeaderFactor. (2023, February 2). *Is your toxic boss actively toxic or passively complicit?* <https://www.leaderfactor.com/post/is-your-toxic-boss-actively-toxic-or-passively-complicit>
- Lencioni, P. (2002). *Overcoming the five dysfunctions of a team: A field guide*. Jossey-Bass.
- Leung, C., Lucas, A., Brindley, P., Anderson, S., Park, J., Vergis, A., & Gillman, L. M. (2018). Followership: A review of the literature in healthcare and beyond. *Journal of Critical Care*, *46*, 99–104. <https://doi.org/10.1016/j.jcrc.2018.05.001>
- Lewin, K. (1946). Action research and minority problems. *Journal of Social Issues*, *2*(4), 34–46. <https://doi.org/10.1111/j.1540-4560.1946.tb02295.x>
- Lincoln, Y. S., & Guba, E. G. (1982). *Establishing dependability and confirmability in naturalistic inquiry through an audit* [Paper presentation]. American Educational Research Association Annual Meeting, New York, NY. <https://files.eric.ed.gov/fulltext/ED216019.pdf>

- Lincoln, Y. S., Lynham, S. A., & Guba, E. G. (2018). Paradigmatic controversies, contradictions, and emerging confluences, revisited. In N. K. Denzin & Y. S. Lincoln (Eds.), *The SAGE handbook of qualitative research* (5th ed., pp. 108–150). SAGE.
- Lipman-Blumen, J. (2005). *The allure of toxic leaders: Why we follow destructive bosses and corrupt politicians and how we can survive them*. Oxford University Press.
- Liu, C. E., Yu, S., Chen, Y., & He, W. (2020). Supervision incivility and employee psychological safety in the workplace. *International Journal of Environmental Research and Public Health*, *17*(3), 840–853. <https://doi.org/10.3390/ijerph17030840>
- Maccoby, M. (2004). Narcissistic leaders: The incredible pros, the inevitable cons. *Harvard Business Review*, *82*(1), 92. <http://doi.org/10.4324/9781315250601-4>
- Manz, C. C., & Sims, H. P. (1991). SuperLeadership: Beyond the myth of heroic leadership. *Organizational Dynamics*, *19*(4), 18–35. [https://doi.org/10.1016/0090-2616\(91\)90051-A](https://doi.org/10.1016/0090-2616(91)90051-A)
- Marshall, J., & Mead, G. (2005). Editorial: Self-reflective practice and first-person action research. *Action Research*, *3*(3), 235–244. <https://doi.org/10.1177/1476750305055999>
- Maul, A. (2018). *The SAGE encyclopedia of educational research, measurement, and evaluation*. SAGE.
- Mawritz, M. B., Mayer, D. M., Hoobler, J. M., Wayne, S. J., & Marinova, S. V. (2012). A trickle-down model of abusive supervision. *Personal Psychology*, *65*(2), 325–357. <https://doi.org/10.1111/j.1744-6570.2012.01246.x>
- MAXQDA. (n.d.). *MAXQDA* [Data analysis and presentation software]. <https://www.maxqda.com/>

- May, D. R., Gilson, R. L., & Harter, L. M. (2004). The psychological conditions of meaningfulness, safety and availability and the engagement of the human spirit at work. *Journal of Occupational and Organizational Psychology*, 77(1), 11–37. <https://doi.org/10.1348/096317904322915892>
- McAlister, D. J. (1995). Affect- and cognition-based trust as foundations for interpersonal cooperation in organizations. *The Academy of Management Journal*, 38(1), 24–59. <https://doi.org/10.2307/256727>
- McCleskey, J. A. (2013). The dark side of leadership: Measurement, assessment, and intervention. *The Business Renaissance Quarterly*, 8(2), 35–53.
- McCullough, J. (2019, December 9). The psychopathic CEO. *Forbes*. <https://www.forbes.com/sites/jackmccullough/2019/12/09/the-psychopathic-ceo/?sh=24da0aa7791e>
- Meindl, J. R., Ehrlich, S. B., & Dukerich, J. M. (1985). The romance of leadership. *Administrative Science Quarterly*, 30(1), 78–102. <https://doi.org/10.2307/2392813>
- Mental Health Commission of Canada & Canadian Standards Association. (2022). *Psychological health and safety in the workplace - prevention, promotion, and guidance to staged implementation*. CSA Group & BNQ. https://www.healthandsafetybc.ca/wp-content/uploads/2016/04/CAN_CSA-Z1003-13_BNQ_9700-803_2013_EN.pdf
- Moè, A., & Katz, I. (2020). Self-compassionate teachers are more autonomy supportive and structuring whereas self-derogating teachers are more controlling and chaotic: The mediating role of need satisfaction and burnout. *Teaching and Teaching Education*, 96, 103173. <https://doi.org/10.1016/j.tate.2020.103173>

- Moon, K., & Blackman, D. (2014). A guide to understanding social science research for natural scientists. *Conservation Biology*, 28(5), 1167–1177. <https://doi.org/10.1111/cobi.12326>
- Moore, L., & McAuliffe, E. (2012). To report or not to report? Why some nurses are reluctant to whistleblow. *Clinical Governance*, 17(4), 332–342.
<https://doi.org/10.1108/14777271211273215>
- Moritz, J. (2023, August, 18). Hospital bosses ignored months of doctors warnings about Lucy Letby. *BBC News*. <https://www.bbc.com/news/uk-66120934>
- Muller, A. E., Hafstad, E. V., Himmels, J. P. W., Smedslund, G., Flottorp, S., Stensland, S. Ø., Stroobants, S., Van de Velde, S., & Vist, G. E. (2020). The mental health impact of the covid-19 pandemic on healthcare workers, and interventions to help them: A rapid systematic review. *Psychiatry Research*, 293, 113441.
<https://doi.org/10.1016/j.psychres.2020.113441>
- Muris, P. (2015). A protective factor against mental health problems in youths? A critical note on the assessment of self-compassion. *Journal of Child and Family Studies*, 25, 1–5.
<https://dx.doi.org/10.1007/s10826-015-0315-3>
- Neff, K. D. (2003a). Development and validation of a scale to measure self-compassion. *Self and Identity*, 2, 223–250. <https://self-compassion.org/wp-content/uploads/2021/03/SCS-information.pdf>
- Neff, K. (2003b). Self-compassion: An alternative conceptualization of a healthy attitude towards oneself. *Self and Identity*, 2, 85–101. <https://doi.org/10.1080/15298860309032>
- Neff, K. (2015). The self-compassion scale is a valid and theoretically coherent measure of self-compassion. *Mindfulness*, 7, 264–274. <https://dx.doi.org/10.1007/s12671-015-0479-3>

- Neff, K. (2021). *Fierce self-compassion*. HarperCollins.
- Neff, K., & Germer, C. (2018). *The mindful self-compassion workbook*. The Guilford Press.
- Neff, K., & Vork, R. (2009). Self-compassion versus global self-esteem: Two different ways of relating to oneself. *Journal of Personality, 77*(1), 23–50.
<https://dx.doi.org/10.1111/j.1467-6494.2008.00537.x>
- Nembhard, I. M., & Edmondson, A. C. (2006). Making it safe: The effects of leader inclusiveness and professional status on psychological safety and improvement efforts in health care teams. *Journal of Organizational Behavior, 27*(7), 941–966.
<https://doi.org/10.1002/job.413>
- Nevecka, B., De Hoogh, A. H., Den Hartog, D. N., & Belschak, F. D. (2018). Narcissistic leaders and their victims: Followers low on self-esteem and low on core self-evaluations suffer most. *Frontiers in Psychology, 9*, 422. <https://doi.org/10.3389/fpsyg.2018.00422>
- Newman, A., Donohue, R., & Eva, N. (2017). Psychological safety: A systematic review of the literature. *Human Resource Management Review, 27*(3), 521–535.
<https://doi.org/10.1016/j.hrmr.2017.01.001>
- Nobles, W. (n.d.). *Dr. Wade W. Nobles*. <https://www.drwadenobles.com/>
- O'Donovan, R., & McAuliffe, E. (2020a). A systematic review of factors that enable psychological safety in healthcare teams. *Journal of the International Society for Quality in Health Care, 32*(4), 240–250. <https://doi.org/10.1093/intqhc/mzaa025>

- O'Donovan, R., & McAuliffe, E. (2020b). Exploring psychological safety in healthcare teams to inform the development of interventions: Combining observational, survey and interview data. *BMC Health Services Research*, *20*(1), 1–16. <https://doi.org/10.1186/s12913-020-05646-z>
- O'Donovan, R., Van Dun, D., & McAuliffe, E. (2020). Measuring psychological safety in healthcare teams: Developing an observational measure to complement survey methods. *BMC Medical Research Methodology*, *20*, 1–17. <https://doi.org/10.1186/s12874-020-01066-z>
- Oelklaus, N. (n.d.). *Eye of the needle: A communication tool*. The Systems Thinker. <https://thesystemsthinker.com/eye-of-the-needle-a-communication-tool/>
- O'Leary, D. F. (2016). Exploring the importance of team psychological safety in the development of two interprofessional teams. *Journal of Interprofessional Care*, *30*(1), 29–34. <https://doi.org/10.3109/13561820.2015.1072142>
- O'Leary, K. J., Wayne, D. B., Landler, M. P., Kulkarni, N., Haviley, C., Hahn, K. J., Jeon, J., Englert, K. M., & Williams, M. V. (2019). Impact of localizing physicians to hospital units on nurse-physician communication and agreement on the plan of care. *Journal of General Internal Medicine*, *24*(11), 1223–1227. [Http://doi.org/10.1007/s11606-009-1113-7](http://doi.org/10.1007/s11606-009-1113-7)
- Okpala, P. (2021). Addressing power dynamics in interprofessional health care teams. *International Journal of Healthcare Management*, *14*(4), 1326–1332. <https://doi.org/10.1080/20479700.2020.1758894>
- Otter.ai. (n.d.). *Otter.ai* [Speech-to-text application]. <https://otter.ai/>

- Padilla, A., Hogan, R., Kaiser, R. B. (2007). The toxic triangle: Destructive leaders, susceptible followers, and conducive environments. *The Leadership Quarterly*, 18(3), 176–194.
<https://doi.org/10.1016/j.leaqua.2007.03.001>
- Page, A. (Ed.). (2004). *Keeping patients safe: Transforming the work environment of nurses*. National Academies Press.
- Paina, L., & Peters, D. H. (2012). Understanding pathways for scaling up health services through the lens of complex adaptive systems. *Health Policy and Planning*, 27(5), 365–373.
<https://doi.org/10.1093/heapol/czr054>
- Paulhus, D. L., & Williams, K. M. (2002). The dark triad of personality: Narcissism, Machiavellianism, and psychopathy. *Journal of research in personality*, 36(6), 556–563.
[https://doi.org/10.1016/S0092-6566\(02\)00505-6](https://doi.org/10.1016/S0092-6566(02)00505-6)
- Pearson, C. M., Andersson, L. M., & Wegner, J. W. (2001). When workers flout convention: A study of workplace incivility. *Human Relations*, 54(11), 387–419.
<https://doi.org/10.1177/00187267015411001>
- Plsek, P. E., & Greenhalgh, T. (2001). The challenge of complexity in health care. *BMJ*, 323(7313), 625–628. <https://doi.org/10.1136/bmj.323.7313.625>
- Porath, C. (2016). An antidote to incivility. *Harvard Business Review*, 94(4), 22.
<https://hbr.org/2016/04/an-antidote-to-incivility>
- Potts, K. L., & Brown, L. (2015). Becoming an anti-oppressive researcher. In S. Strega & L. A. Brown (Eds.), *Research as resistance: Revisiting critical, Indigenous, and anti-oppressive approaches* (2nd ed., pp. 17–41). Canadian Scholars' Press.

Providence Health Care. (n.d.). *Mission, vision and values*.

<https://www.providencehealthcare.org/about-providence/who-we-are/mission-vision-values>

Purpora, C., & Blegen, M. A. (2012). Horizontal violence and the quality and safety of patient care: A conceptual model. *Nursing Research and Practice*, 2012, 1–5.

<https://doi.org/10.1155/2012/306948>

Raes, F., Pommier, E., Neff, K., & Van Gucht, D. (2011). Construction and factorial validation of a short form of the self-compassion scale. *Clinical Psychology and Psychotherapy*, 18(3), 250–255. <https://doi.org/10.1002/cpp.702>

Rauthmann, J. F. (2011). The self-loving self-leader: An examination of the relationship between self-leadership and the dark triad. *Social Behaviour and Personality*, 39(3), 369–380.

<https://doi.org/10.2224/sbp.2011.39.3.369>

Reader, T. W., Flin, R., & Cuthbertson, B. H. (2007). Communication skills and error in the intensive care unit. *Current Opinion in Critical Care*, 13(6), 732–736.

<https://doi.org/10.1097/MCC.0b013e3282f1bb0e>

Reason, P., & Bradbury, H. (2008). *The SAGE Handbook of action research participative inquiry and practice* (2nd ed.). SAGE.

Reese, J., Simmons, R., & Barnard, J. (2016). Assertion practices and beliefs among nurses and physicians on an inpatient pediatric medical unit. *Hospital Pediatrics*, 6(5), 275–281.

<https://doi.org/10.1542/hpeds.2015-0123>

Richmond, B. (1994). Systems thinking/system dynamics: Let's just get on with it. *Systems Dynamic Review*, 10(2–3), 135–157. <https://doi.org/10.1002/sdr.42601002044>

- Riggio, R., Chaleff, I., & Lipman-Blumen, J. (2008). *The art of followership: How great followers create great leaders and organizations*. Jossey-Bass.
- Roberts, S. J. (1983). Oppressed group behavior: Implications for nursing. *Advances in Nursing Science*, 5(4), 21–30. <http://doi.org/10.1097/00012272-198307000-00006>
- Roberts, S. J. (2000). Development of a positive professional identity: Liberating oneself from the oppressor within. *Advances in Nursing Science*, 22(4), 71–82. <http://doi.org/10.1097/00012272-200006000-00007>
- Rosalie, G. A., Boje, D. M., & Claw, C. M. (2018). Ensemble leadership theory: Collectivist, relational, and heterarchical roots from Indigenous contexts. *Leadership*, 14(3), 307–328. <http://doi.org/10.1177/1742715016652933>
- Rosenstein, A. H., & O’Daniel, M. (2006). A Survey of the impact of disruptive behaviors and communication defects on Patient Safety. *Journal of the American College of Surgeons*, 203(1), 96–105. [https://doi.org/10.1016/S1553-7250\(08\)34058-6](https://doi.org/10.1016/S1553-7250(08)34058-6)
- Rouse, W. B. (2008). Health care as a complex adaptive system: Implications for design and management. *Bridge-Washington-National Academy of Engineering*, 38(1), 17–25. <https://search.iczhiku.com/paper/KZ6FfM1bdjPoyP6a.pdf>
- Rowe, W. E. A., Graf, M., Agger-Gupta, N., Piggot-Irvine, E., & Harris, B. (2013). *Action research engagement: Creating the foundations for organizational change* (ALARA Monograph Series No. 5). https://www.alarassociation.org/sites/default/files/docs/monographs/ALARA_MonographNo5Rowe_et_al2013.pdf

- Rowell, P. A. (2005). Being a “target” at work: Or William Tell and how the apple felt. *The Journal of Nursing Administration*, 35(9), 377–379.
https://journals.lww.com/jonajournal/Fulltext/2005/09000/Understanding_RN_and_Unlicensed_Assistive.2.aspx
- Royal Roads University. (2020). *Research ethics policy* (No. 1003).
<https://www.royalroads.ca/policies/research-ethics>
- Rozovsky, J. (2015, November 17). The five keys to a successful Google team. *re:Work*.
<https://rework.withgoogle.com/blog/five-keys-to-a-successful-google-team/>
- Saldaña, J. (2013). *The coding manual for qualitative researchers* (2nd ed.). SAGE.
- Saldaña, J., & Omasta, M. (2022). *Qualitative research: Analyzing life* (2nd ed.). SAGE.
- Sasaki, N., Inoue, A., Asaoka, H., Sekiya, Y., Nishi, D., Tsutsumi, A., & Imamura, K. (2022). The survey measure of psychological safety and its association with mental health and job performance: A validation study and cross-sectional analysis. *International Journal of Environmental Research and Public Health*, 19(16), 9879.
<https://doi.org/10.3390/ijerph19169879>
- Schein, E. H. (1993). On dialogue, culture, and organizational learning. *Organizational Dynamics*, 22(2), 40–51. [https://doi.org/10.1016/0090-2616\(93\)90052-3](https://doi.org/10.1016/0090-2616(93)90052-3)
- Schein, E. H., & Bennis, W. G. (1965). Personal and organizational change through group methods: The laboratory approach. *Adult Education*, 17(2), 126–128.
- Schwappach, D. L., & Gehring, K. (2014). Trade-offs between voice and silence: A qualitative exploration of oncology staff’s decisions to speak up about safety concerns. *BMC Health Services Research*, 14, 1–10. <http://doi.org/10.1186/1472-6963-14-303>

- Senge, P. M. (2006). *The fifth discipline: The art & practice of the learning organization*. Currency Doubleday.
- Shadraconis, S. (2013). Leaders and heroes: Modern day archetypes. *A Journal of Transdisciplinary Writing and Research from Claremont Graduate University*, 3(1), Article 15. <http://scholarship.claremont.edu/lux/vol3/iss1/15>
- Shannon, P., & Hambacher, E. (2014). Authenticity in constructivist inquiry: Assessing an elusive construct. *The Qualitative Report*, 19(52), 1–13. <https://doi.org/10.46743/2160-3715/2014.1418>
- Shenton, A. K. (2004). Strategies for ensuring trustworthiness in qualitative research projects. *Education for Information* 22(2), 63–75. <https://doi.org/10.3233/EFI-2004-22201>
- Short, R. (1998). *Learning in relationships: Foundation for personal and professional success*. Learning in Action Technologies.
- Siemsen, E., Roth, A. V., Balasubramanian, S., & Anand, G. (2009). The influence of psychological safety and confidence in knowledge on employee knowledge sharing. *Manufacturing & Service Operations Management*, 11(3), 429–447. <https://doi.org/10.1287/msom.1080.0233>
- Sinclair, C. M. (2001). *The report of the Manitoba pediatric cardiac surgery inquest: An inquiry into twelve deaths at the Winnipeg health sciences centre in 1994*. Provincial Court of Manitoba. <http://www.pediatriccardiacinquest.mb.ca/toc/toc.html>

- Smith, C. (2021, May 29). B.C. Supreme Court justice declares that B.C. Children's Hospital's legal dispute with surgeon was of its own making. *The Georgia Straight*.
<https://www.straight.com/living/bc-supreme-court-justice-declares-that-bc-childrens-hospitals-legal-dispute-with-surgeon-was>
- Snowden, D. J., & Boone, M. E. (2007). A leader's framework for decision-making. *Harvard Business Review*, 85(11), 68–76. <https://hbr.org/2007/11/a-leaders-framework-for-decision-making>
- Stanely, K. M., Martin, M. M., & Nemeth, L. S. (2007). Examining lateral violence in the nursing workforce. *Issues in Mental Health Nursing*, 28(11), 1247–1265.
<https://doi.org/10.1080/016128407016514700>
- Stroh, D. P. (2015). *Systems thinking for social change*. Chelsea Green.
- Sundstrom, E., De Meuse, K. P., & Futrell, D. (1990). Work teams: Applications and effectiveness. *American Psychologist*, 45(2), 120–133. <https://doi.org/10.1037/0003-066X.45.2.120>
- Sutcliffe, K. M., Lewton, E., & Rosenthal, M. M. (2004). Communication failures: An insidious contributor to medical mishaps. *Academic Medicine*, 79(2), 186–194.
<https://doi.org/10.1097/00001888-200402000-00019>
- Suter, N. W. (2012). *Educational research: A critical thinking approach*. SAGE.
- Swendiman, R. A., Edmondson, A. C., & Mahmoud, N. N. (2019). Burnout in surgery viewed through the lens of psychological safety. *Annals of Surgery*, 269(2), 234–235.
<https://doi.org/10.1097/SLA.0000000000003019>

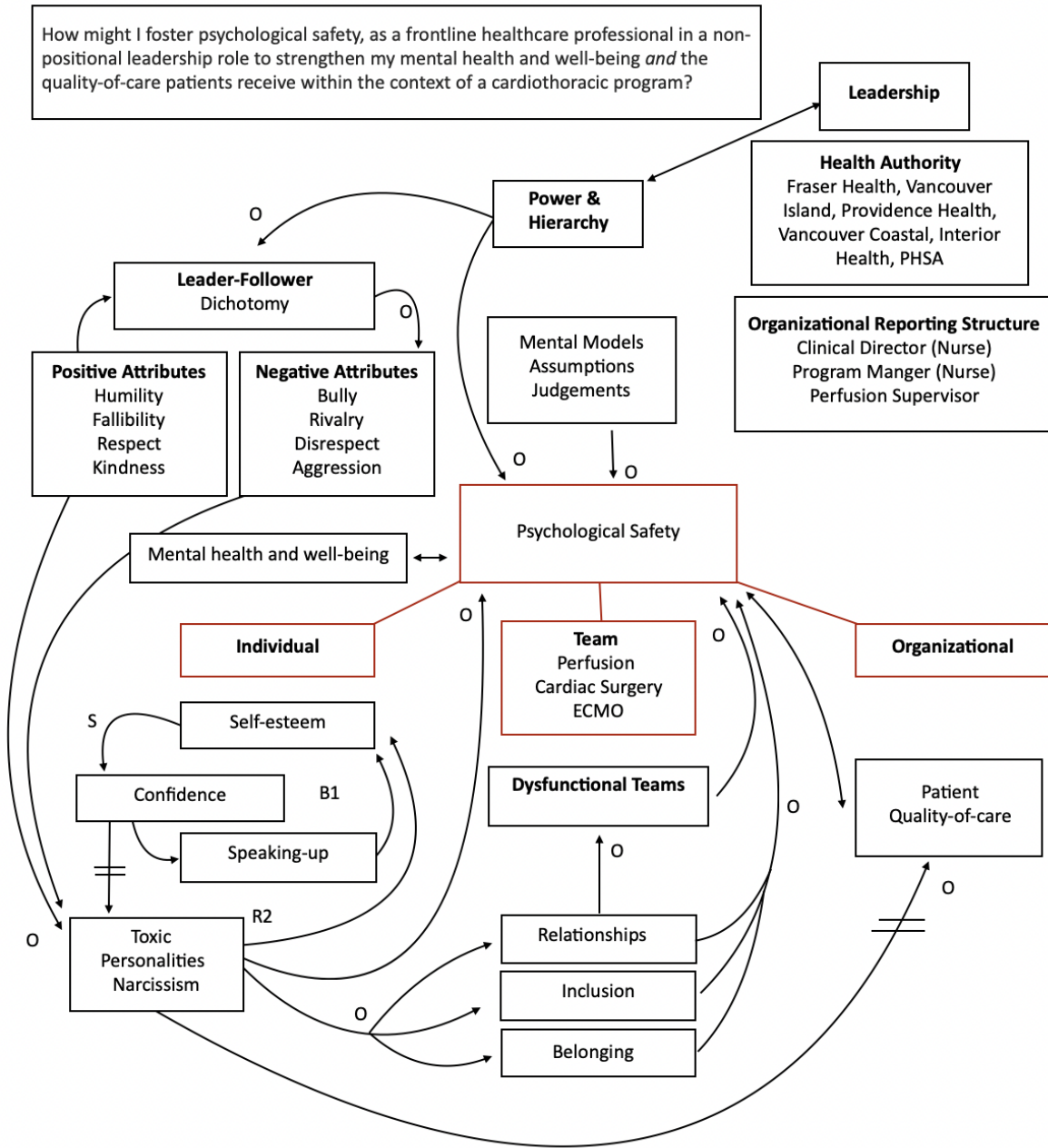
- Talae, N., Varahram, M., Jamaati, H., Salimi, A., Attarchi, M., Kazempour Dizaji, M., Sadr, M., Hassani, S., Farzanegan, B., Monjazebi, F., & Seyedmehdi, S. M. (2022). Stress and burnout in health care workers during COVID-19 pandemic: Validation of a questionnaire. *Journal of Public Health, 30*, 531–536. <https://doi.org/10.1007/s10389-020-01313-z>
- Taylor, M. (2013). *The evolution of Leadership worldviews and orientations in western culture* [Unpublished Paper]. Royal Roads University.
- Taylor, R. (2016). Nurses' perceptions of horizontal violence. *Global Qualitative Nursing Research, 3*. <http://doi.org/10.1177/2333393616641002>
- Tepper, B. J., Simon, L., & Park, H. M. (2017). Abusive Supervision. *Annual Review of Organizational Psychology and Organizational Behaviour, 4*(1), 123–152. <https://doi.org/10.1146/annurev-orgpsych-041015-062539>
- Tobert, W. R. (1999). The distinctive questions developmental action inquiry asks. *Management Learning, 30*(2), 189–206. <https://doi.org/10.1177/1350507699302006>
- Tobin, G. A., & Begley, C. M. (2004). Methodological rigour within a qualitative framework. *Journal of Advanced Nursing, 48*(4), 388–396. <https://doi.org/10.1111/j.1365-2648.2004.03207.x>
- Tourish, D. (2013). *The dark side of transformational leadership*. Routledge.
- Tyler, T. R., & Lind, E. A. (1992). A relational model of authority in groups. *Advances in Experimental Social Psychology, 25*, 115–191. [https://doi.org/10.1016/S0065-2601\(08\)60283-X](https://doi.org/10.1016/S0065-2601(08)60283-X)

- Umejima, K., Ibaraki, T., Yamazaki, T., & Sakai, K. L. (2021). Paper notebooks vs. mobile devices: Brain activation differences during memory retrieval. *Frontiers in Behavioural Neuroscience, 15*, 634158. <https://dx.doi.org/10.3389/fnbeh.2021.634158>
- Unal, A., & Seren, S. (2016). Medical error reporting attitudes of healthcare personnel, barriers and solutions: A literature review. *Journal of Nursing and Care, 5*(6), 1–8. <https://pdfs.semanticscholar.org/321e/63b6c7503d6c6cb6accc0c381215964939c2.pdf>
- United States Department of Health and Human Services. (2022). *Workplace mental health and well-being*. <https://www.hhs.gov/sites/default/files/workplace-mental-health-well-being.pdf>
- United States Surgeon General. (2022). *Framework for workplace mental health and well-being*. <https://www.hhs.gov/sites/default/files/workplace-mental-health-well-being.pdf>
- Van Dyne, L., Graham, J. W., & Dienesch, R. M. (1994). Organizational citizenship behavior: Construct redefinition, measurement, and validation. *Academy of Management Journal, 37*(4), 765–802. <https://doi.org/10.2307/256600>
- Vancouver Coastal Health. (n.d.). *Strategic priorities*. <http://www.vch.ca/about-us/strategy>
- Vogel, R. M., & Bolino, M. C. (2020). Recurring nightmares and silver linings: Understanding how past abusive supervision may lead to posttraumatic stress and posttraumatic growth. *Academy of Management Review, 45*(3), 549–569. <https://doi.org/10.5465/amr.2017.0350>
- Volz, N. B., Fringer, R., Walters, B., & Kowalenko, T. (2017). Prevalence of horizontal violence among emergency attending physicians, residents, and physician assistants. *The Western Journal of Emergency Medicine, 18*(2), 213–218. <http://doi.org/10.5811/westjem.2016.10.31385>

- Weberg, D. (2012). Complexity leadership: A healthcare imperative. *Nursing forum*, 47(4), 268–277. <https://doi.org/10.1111/j.1744-6198.2012.00276.x>
- Wekselberg, V. (1997). Groupthink: A triple fiasco in social psychology. In C. W. Tolman, F. Cherry, R. van Hezewijk, I. Lubek (Eds.), *Problems of theoretical psychology* (pp. 217–227). Captus Press.
- Williams, B. (2008). *Bucking the system: Systems concepts and development*. The Broker 11. <https://www.thebrokeronline.eu/bucking-the-system-d5/>
- Wilson, S. (2008). *Research is ceremony: Indigenous research methods*. Fernwood Publishing.
- Wo, D. X. H., Ambrose, M. L., & Schminke, M. (2015). What drives trickle-down effects? A test of multiple mediation processes. *The Academy of Management Journal*, 58(6), 1848–1868. <https://doi.org/10.5465/amj.2013.0670>
- World Health Organization. (2023). Burnout. In *International Classification of Diseases (ICD-11)*. <https://icd.who.int/browse11/l-m/en#/http://id.who.int/icd/entity/129180281>
- Wouters-Soomers, L., Van Ruysseveldt, J., Bos, A. E. R., & Jacobs, N. (2022). An individual perspective on psychological safety: The role of basic need satisfaction and self-compassion. *Frontiers in Psychology*, 13, 920908. <https://doi.org/10.3389/fpsyg.2022.920908>
- Yilmaz, K. (2013). Comparison of quantitative and qualitative research traditions: Epistemological, theoretical and methodological differences. *European Journal of Education* 48(2), 311–325. <https://doi.org/10.1111/ejed.12014>

- Young, R., Mangwi Ayiasi, R., Shung-King, M., & Morgan, R. (2020). Health systems of oppression: Applying intersectionality in health systems to expose hidden inequities. *Health Policy and Planning, 35*, 1228–1230. <https://doi.org/10.1093/heapol/czaa111>
- Zessin, U., Dickhauser, O., & Garbade, S. (2015). The relationship between self-compassion and well-being: A meta-analysis. *Applied Psychology: Health and Well-being, 7*(3), 340–364. <https://dx.doi.org/10.1111/aphw.12051>.
- Zimmerman, T., & Amori, G. (2011). The silent organizational pathology of insidious intimidation. *Journal of Healthcare Risk Management, 30*(3), 5–15. <https://doi.org/10.1002/jhrm.20055>

Appendix A: Systems Analysis



Key
 O = change in opposite direction
 S = change in same direction
 = = delay in change
 (Stroh, 2015)

B1 = Quick fix
 R2 = long term unintended consequence

Appendix C: Psychological Safety Measurement Scale

Questions	1	2	3	4	5	6	7	n/a
I find it difficult to ask other members of this team for help ^a								
On this team, it is difficult to speak up and discuss an error I have made ^a								
In this work setting, it is difficult to speak up if I perceive a problem with patient care ^a								
In this team I can communicate my options about work challenges and tough issues ^b								
If I speak up/voice my opinion, I know that my input is valued by my team ^b								
I make real attempts to share information throughout the team ^b								
The culture in this work setting makes it difficult to learn from errors ^a								
It is easy for personnel here to ask questions when there is something that they do not understand ^b								

Note. Likert scale; 1 denotes strongly disagree and 7 denotes strongly agree. Negatively termed items denoted (a) and positively termed items denoted (b). Adapted from “Psychological safety and learning behavior in work teams,” by A. Edmondson, 1999, *Administrative Science Quarterly*, 44(2), p. 382 (<https://doi.org/10.2307/2666999>). Copyright 1999 by Cornell University. Reprinted with permission.

Appendix D: A Self-Compassion Scale

Questions	1	2	3	4	5
When I fail at something important to me, I become consumed by feelings of inadequacy (OI)					
I try to be understanding and patient toward those aspects of my personality I don't like (SK)					
When something painful happens, I try to take a balanced view of the situation (M)					
When I'm feeling down, I tend to feel like most other people are probably happier than I am (I)					
I try to see my failings as part of the human condition (CH)					
When I'm going through a very hard time, I give myself the caring and tenderness I need (SK)					
When something upsets me, I try to keep my emotions in balance (M)					
When I fail at something that's important to me, I tend to feel alone in my failure (I)					
When I'm feeling down, I tend to obsess and fixate on everything that's wrong (OI)					
When I feel inadequate in some way, I try to remind myself that feelings of inadequacy are shared by most people (CH)					
I'm disapproving and judgmental about my own flaws and inadequacies (SJ)					
I'm intolerant and impatient towards those aspects of my personality I don't like (SJ)					

Note. Likert scale; 1 denotes almost never and 5 denotes almost always. Coding key items; SK = self-kindness, SJ = Self-judgement, CH = common humanity, I = isolation, M = mindfulness, and OI = over-identified. From "Construction and factorial validation of a short form of the self-compassion scale," by F. Raes, E. Pommier, K. Neff, and D. Van Gucht, 2011, *Clinical Psychology and Psychotherapy*, 18, p. 252 (<https://doi.org/10.1002/cpp.702>). Copyright 2011 by John Wiley & Sons. Reprinted with permission.

Appendix E: Email Invitation – Feedback Participants

Date: dd-mm-yyyy

The Heart of the Matter: Non-Positional Leadership and Psychological Safety in Cardiothoracic Programs

Dear [Participant Name],

I am contacting you on behalf of Victoria Jane Harris, the principal investigator, who would like to invite you to be part of her thesis research she is conducting as part of her Master of Arts Degree in Leadership - Health at Royal Roads University, British Columbia. Vicky and I are cohort peers within the Masters of Leadership program and are supporting each other in our research thesis. The research proposal "*The Heart of the Matter: Non-Positional Leadership and Psychological Safety in Cardiothoracic Programs*" has been approved by the Research and Ethics Board at Royal Roads University, Canada and I have been given permission to contact potential participants for this purpose.

The purpose of Victoria's thesis research is to understand *how I, Victoria Jane Harris, might foster psychological safety within my own practice as a frontline healthcare professional in a non-positional leadership role to strengthen my mental health and well-being and the quality of care patients receive within the context of cardiothoracic programs.*

Your name was chosen as a prospective participant because you and Vicky have developed a trusting and mutually respectful relationship, one that has established a practice of enriching conversations regarding both your professional practice in healthcare and matters pertaining to safety and mental health and well-being. Therefore, your critical and candid reflection of your experiences, perspectives, and insights towards psychological safety in cardiothoracic programs, how you support your mental health and well-being and feedback on Vicky's practice as a healthcare professional would be invaluable

This phase of her research would consist of three 60-minute virtual one-on-one audio recorded and auto transcription interviews over a period of twelve-weeks. Please see attached document (Information Letter for Participants) for further details. Interview dates are attentively arranged for the weeks of 8th May, 29th May, and 19th June, 2023.

I appreciate that due to your professional relationship and personal friendship with Vicky, you may feel compelled to participate in this research project. Please know you are not required to participate, and it is completely voluntary. Should you choose not to participate, simply do not reply to this request, this will not impact your future relationship in any capacity, and your decision will be kept confidential.

If you would like to participate, please respond directly to this email request [email address], within two weeks, and by doing so you indicate that you have read and understand the information attached and are giving your free and informed consent to participate in this project. However, your decision to participate at this stage does not limit your ability to withdraw consent at any time within the course of this research without prejudice. In such a situation,

please email [email address] of your decision, this shall be acknowledged in writing via email within 48 hours and the principal investigator shall be immediately informed and all information that corresponds with your participant identification number shall be confidentially shredded and permanently deleted from electronic and audio files. Of note, the principal investigator wishes to stress this will not impact your future relationship in any capacity, will not be discussed with you in subsequent interactions, and remain confidential.

As a participant in this research or subsequently due to your decision to withdraw, you can contact Royal Roads University for free and confidential counselling service (in person, over the phone or on Zoom), should this research have impacted you in any way. To book an appointment please contact, Royal Roads University Counselling, phone: [telephone number or email: www.royalroads.ca/student-counselling (online booking system).

The attached document (Information for Feedback Participants) contains further information about the research and I hope will assist you to make a fully informed decision on whether you wish to participate. Please review this information before responding. Please feel free to contact me at any time should you have additional questions regarding this thesis research and its outcomes at [email address]. If you decide to participate, I will inform the primary investigator, Victoria Jane Harris, and all further correspondence will be kept confidential between you both.

Thank you for taking the time to review the information attached and your consideration to participate in this research. Please keep a copy of this information letter for your records.

Sincerely,
Cohort Peer Name

[email address]

On behalf of Victoria Jane Harris

I would like to acknowledge I am deeply grateful to live on the unceded, traditional ancestral territories of the Coast Salish People: the x^wməθk^wəyəm (Musqueam), Skwxwú7mesh (Squamish) and Stó:lō and Səlilwətaʔ/Selilwitulh (Tsleil-Waututh) First Nations. As a healthcare professional, I recognize that there is systemic racism within and throughout our healthcare organizations, and that we have the responsibility and power to create culturally safe and appropriate environments of care.

Appendix F: Information Letter – Feedback Participants

Date: dd-mm-yyyy

Title: The Heart of the Matter: Non-Positional Leadership and Psychological Safety in Cardiothoracic Programs

Dear [Feedback Participant Name],

Victoria Jane Harris, the principal investigator, is a clinical perfusionist situated in a cardiothoracic program within the acute healthcare setting. This research project is part of her requirement for a Master of Arts in Leadership - Health degree at Royal Roads University, Canada and has received approval by the university's Research Ethics Board. Victoria's credentials with Royal Roads University can be confirmed by contacting the program director, Cheryl Heykoop, MA - Leadership, School of Leadership Studies at [email address]

Purpose of Research

The purpose of this research is to identify and articulate actionable changes I, Victoria Jane Harris, can make within my own professional practice to support a psychologically safe working environment. My motivation to pursue this capstone includes personal experiences of feeling unsafe within this environment, its impact on my mental health and wellbeing, patient safety, and hearing others with similar concerns. My hope is this thesis will provide an avenue to open a dialogue on this phenomenon within cardiothoracic programs and may in some way help support other individuals who can relate to this research topic. The principal inquiry question at the heart of this research is:

How might I, Victoria Jane Harris, foster psychological safety, as a frontline healthcare professional in a non-positional leadership role to strengthen my mental health and well-being and the quality of care patients receive within the context of a cardiothoracic program?

Participation and Information Collected

The research will include two research methods including self-reflective journaling by the primary investigator, Victoria Jane Harris, and one-on-one interviews with participants. This research is cyclical in nature, three cycles of data gathering will be completed, each cycle consisting of two weeks of personal journaling followed by one-on-one interviews. Each cycle allows for the reflection and articulation of actionable changes which can be made within personal practice and explored in the following cycle.

Firstly, within personal daily journaling Victoria will reflect on experiences she has encountered as they pertain to psychological safety where she will explore her observations, reactions, judgements, and interventions in the workplace environment. In addition, she will utilize quantitative psychological safety and self-compassionate measurement tools adapted from the literature within this process.

Participant engagement will be through one-on-one interviews including healthcare professionals within the multidisciplinary team (e.g., nurses, perfusionists, and physicians) and subsequently subject matter expert(s) in psychological safety and/or self-compassion practices. The principal investigator, Victoria Jane Harris, will meet virtually with participants for three 60-minute one-on-one interviews, utilizing both Otter audio recording (www.Otter.ai) and Zoom (www.zoom.us) platforms over a period of twelve-weeks. One-on-one Interviews will seek to explore the varying perspectives of psychological safety through a narrative dialogue consisting of open-ended questions and up to two scenarios (see attached Additional Information) that participants will be asked to place themselves as the primary recipient of that interaction. The aim is to remove the principal investigator's interpretation of the scenario and seek participant's insights from a different lens. As a result, providing the opportunity to uncover and expose assumptions, biases, and behaviors within Victoria's practice and broaden her perspective, receiving valuable insights that she cannot know on her own. Interview questions and scenarios will be electronically presented to the participant's one-week prior to scheduled interview dates, to allow for reflection, which will subsequently be discussed within the interview, however no prior preparation is required unless participants deem this necessary.

Concluding each one-on-one interview, the principal investigator will review auto-transcriptions for errors and/or shortcomings of the platform and a written copy shall be electronically returned via email to participants within 48 hours to ensure a true reflection of your discussion. Participants are asked to highlight, within 10 days of receiving the transcription, any amendments and/or discrepancies within this document. It is anticipated the time required to dedicate to this research over the 12-weeks will be approximately nine hours.

On completion of the third and final interview the principal investigator will then move into analyzing data generated from personal journaling and one-on-one interviews, using a process known as thematic analysis. Thematic analysis identifies themes and patterns within all written documents that emerge which are then coded into words or short phrases. It is important that this process reflects findings that are consistent with participant's experiences and reflections, therefore participants will be offered the opportunity to review draft findings and comment as to the relevancy from their perspective. Participants will receive a copy of draft findings in August 2023.

Sharing Results

Victoria's thesis shall be submitted to Royal Roads University in partial fulfillment for a Master of Arts in Leadership - Health degree, subsequently she will completion of an oral defense (participants will receive optional invitation to attend via email), and the thesis document shall be published on ProQuest (www.proquest.com). Victoria plans to present and share her thesis through a presentation at a professional academic healthcare conference, which participants will receive a written invitation from the principal investigator via email to attend if they desire to do so. Finally, Victoria's will generate a meaningful output product that may support others, a package to assist busy healthcare professionals in non-positional leadership roles to support their emotional intelligence, mental health and well-being. Victoria believes as healthcare workers we prioritize our patients over ourselves, which may be a result of the fast paced, high-stakes environments in which we work. Therefore, through this resource she hopes to support

healthcare workers in these complex environments while fostering psychological safety within ourselves, teams, programs, and organizations. Participants will receive the option of receiving a hard (via Canada Post) and/or electronic copy of this resource in December 2023.

Benefits and Risks to Participant

It is anticipated that there will be minimal risk to the participants in this study. Participants will not be pressured to share specifics that they do not wish or feel comfortable to share. Data generated from participants will be collective in nature and will not represent one person's specific thoughts or contributions. Information, specifically verbatim comments, will at no time be attributed to any individual and used only if a specific agreement between the participant and principal investigator has been obtained beforehand. Of note, utilizing a zoom platform data may be stored in the USA. Data stored on servers in the USA may be subject to examination by the US government under the USA Patriot Act. While this likelihood is small, I am required to let you know this possible risk.

Victoria wanted to acknowledge that recalling stressful events, such as unsafe working environments and their interactions, may be uncomfortable and in some cases harmful to participants. Therefore, participants in this research or subsequently due to your decision to withdraw, have access to free and confidential counselling service at Royal Roads University (in person, over the phone or on Zoom), should this research have impacted you in any way. To book an appointment please contact, Royal Roads University Counselling, phone: [telephone number] or email www.royalroads.ca/student-counselling (online booking system).

As a participant, Victoria hopes a benefit from participating in this research is that it will allow the self-expression of your stories that may provide a therapeutic outlet or perhaps relieve a sense of isolation, and connection through a shared experience. In addition, this research will provide an opportunity to exercise a sense of empowerment, as the outcomes of the research are unattainable without your voice and the generation of new knowledge that will support actionable changes in Victoria's practice and the welfare of other frontline healthcare workers as they grapple with the challenges on the frontline.

Confidentiality, Security of Data, and Retention Period

Your anonymity, privacy, and confidentiality throughout this research and all information collected will be maintained in the strictest of confidence. Hard copies of interview notes, transcripts, and consent forms will be stored in a locked filing cabinet that only the principal investigator has access to within her home. Electronic copies of files will be kept on a secure network that is password protected within her home. Finally, data will be kept until December 5, 2024, at which time hard copies will be confidentially shredded and electronic and audio files will be permanently deleted. Information in written format will be coded anonymously and at no time will any specific comments be attributed to any individual unless specific agreement has been obtained beforehand. All documentation will be kept strictly confidential.

Procedure for Withdrawing from the Study

If you feel that there are any risks to you in participating in this research, you are not required to participate and/or if any risks present themselves during this research you are *always* free to withdraw at any stage without prejudice. In such a situation, please email [email address] of your decision, this shall be acknowledged in writing via email within 48 hours and the principal investigator shall be immediately informed and all information that corresponds with your participant identification number shall be confidentially shredded and permanently deleted from electronic and audio files. Of note, the principal investigator wishes to stress this will not impact your future relationship in any capacity, will not be discussed with you in subsequent interactions, and remain confidential.

Of note, it may not be possible to remove *themes* identified in your interviews as your insights may align with other feedback participants recruited within the research. Likewise, due to the cylindrical and sequential nature of this research design previous perspectives which have emerged during interview discussions may have influenced actionable changes embedded within Victoria's practice through the twelve-week research process.

If you have any additional questions regarding the project and its outcomes, please contact [email address]. By replying directly to this email request for participation and signing the consent form (see attached Consent Form for Participants and Subject Matter Experts) you indicate that you have read and understand the information above and give your free and informed consent to participate in this project. If you decide to participate, I will inform the primary investigator, Victoria Jane Harris, and all further correspondence will be kept confidential between you both. Thank you for taking the time to review the information attached and your consideration to participate in this research. Please keep a copy of this information letter for your records.

Sincerely,
Cohort Peer Name

[email address]

On behalf of Victoria Jane Harris

I would like to acknowledge I am deeply grateful to live on the unceded, traditional ancestral territories of the Coast Salish People: the x^wməθk^wəyəm (Musqueam), Sk̓wxwú7mesh (Squamish) and Stó:lō and Səlilwətaʔ/Selilwitulh (Tsleil-Waututh) First Nations. As a healthcare professional, I recognize that there is systemic racism within and throughout our healthcare organizations, and that we have the responsibility and power to create culturally safe and appropriate environments of care.

Additional Information**Anticipated Questions****Interview One**

1. What does the term psychological safety in cardiothoracic programs mean to you?
2. How does being a frontline healthcare worker rather than an individual with a leadership title (e.g., head of department, charge nurse, program manager) inform your perspective towards psychological safety?
3. When you have experienced a difficult/painful situation at work as a result of a negative interaction with a co-worker what self-compassionate act was helpful to you?
4. What current resources are available to you as a healthcare worker within the program to support your mental health and well-being?

Interview Two

1. What would be an ideal cardiac multidisciplinary setting, interaction, and outcome when discussing a patient adverse event, you were involved with, and how would that look?
2. What would be an ideal interaction and outcome after engaging with a co-worker regarding a professional conflict look like?
3. How would you describe your ideal healthcare environment that supports your mental health and well-being?

Interview Three

1. What are some barriers/challenges you identify that limit your ability to speak-up within the multidisciplinary setting and/or to your leadership team member? What do you believe would happen?
2. Do you know of any policies available to frontline healthcare workers for reporting concerns? How effective are these policies?
3. Are there any factors that influence your ability to speak-up to frontline members of your own profession that differ from other professions? For example, between nurse and nurse, nurses and physicians, and nurse and perfusionist?

Appendix G: Email Invitation – Subject Matter Expert

Date: dd-mm-yyyy

The Heart of the Matter: Non-Positional Leadership and Psychological Safety in Cardiothoracic Programs

Dear [SME Name],

My name is Victoria Jane Harris and I would like to invite you to be part of my thesis research project I am conducting as part of my Master of Arts Degree in Leadership - Health at Royal Roads University, British Columbia, Canada. The research proposal "*The Heart of the Matter: Non-Positional Leadership and Psychological Safety in Cardiothoracic Programs*" has been approved by the Research and Ethics Board at Royal Roads University and I have been given permission to contact potential subject matter experts for this purpose.

The purpose of this first-person qualitative action research project is to understand how, I, Victoria Jane Harris, might foster psychological safety within my own practice as a frontline healthcare professional in a non-positional leadership role to strengthen my mental health and well-being *and* the quality of care patients receive within the context of cardiothoracic programs.

Your name was chosen as a prospective participant because of your experience and expertise in promoting psychological safety and supporting staff wellbeing within the healthcare setting. I would be honoured to learn from you and seek your critical, honest, and candid reflection of my experiences, perspectives, and insights towards psychological safety in cardiothoracic programs and explore actionable changes I can make as a frontline healthcare professional within these settings.

This phase of my research would consist of three 60-minute virtual one-on-one audio recorded and auto transcription interviews over a period of twelve-weeks. Interview dates are attentively arranged for the weeks of 8th May, 29th May, and 19th June 2023. The attached document (Information Letter – Subject Matter Expert) contains further information about the research conduct and I hope will assist you to make a fully informed decision on whether or not you wish to participate. Please review this information before responding.

You are not required to participate in this research project. Should you choose not to participate, simply do not reply to this request, this will not impact our future relationship in any capacity. If you would like to participate, please respond directly to this email request, within two weeks, and by doing so you indicate that you have read and understand the information attached and are giving your free, voluntary, and informed consent to participate in this project. However, your decision to participate at this stage does not limit your ability to withdraw consent at any time within the course of this research without prejudice. I will hold your decision whether or not to participate in confidence.

As a participant in this research or subsequently due to your decision to withdraw, you can contact Royal Roads University for free and confidential counselling service (in person, over the phone or on Zoom), should this research have impacted you in any way.

Please feel free to contact me at any time should you have additional questions regarding this thesis research and its outcomes at [email address]. Thank you for taking the time to review the information attached and your consideration to participate in this research. Please keep a copy of this information letter for your records.

Sincerely,
Victoria Jane Harris

I would like to acknowledge I am deeply grateful to live on the unceded, traditional ancestral territories of the Coast Salish People: the x^wməθk^wəyəm (Musqueam), Sk̓w̓x̓wú7mesh (Squamish) and Stó:lō and Səlilwətaʔ/Selilwitulh (Tseil-Waututh) First Nations. As a healthcare professional, I recognize that there is systemic racism within and throughout our healthcare organizations, and that we have the responsibility and power to create culturally safe and appropriate environments of care.

Appendix H: Cohort Peer Invitation

Date: dd-mm-yyyy

The Heart of the Matter: Non-Positional Leadership and Psychological Safety in Cardiothoracic Programs

Dear [Cohort Peer Name],

My name is Victoria Jane Harris and I would like to invite you to be part of my thesis research project I am conducting as part of my Master of Arts Degree in Leadership - Health at Royal Roads University, British Columbia, Canada. The research proposal "*The Heart of the Matter: Non-Positional Leadership and Psychological Safety in Cardiothoracic Programs*" has been approved by the Research and Ethics Board at Royal Roads University, and I have been given permission to contact a cohort peer for this purpose.

The purpose of this first-person qualitative action research project is to understand how, I Victoria Jane Harris, might foster psychological safety within my own practice as a frontline healthcare professional in a non-positional leadership role to strengthen my mental health and well-being *and* the quality of care patients receive within the context of cardiothoracic programs.

Your name was chosen as a prospective participant because we have developed a trusting and mutually respectful relationship, one that has established a practice of enriching conversations regarding both our professional practice in healthcare and personal self-reflection. I would be honoured to learn from you and seek your critical, honest, and candid reflection of my experiences, perspectives, and insights towards psychological safety in cardiothoracic programs and explore actionable changes I can make as a frontline healthcare professional within these settings.

This phase of my research would consist of you inviting three feedback participants through pre prepared email invitation, information, and consent letters and two 120-minute virtual one-on-one audio recorded and auto transcription interviews over a period of twelve-weeks. Interview dates are attentively arranged for the weeks of 17th April and 17th July 2023. The attached document (Information Letter - Cohort Peer) contains further information about the research conduct and I hope will assist you to make a fully informed decision on whether or not you wish to participate. Please review this information before responding.

You are not required to participate in this research project. Should you choose not to participate, simply do not reply to this request, this will not impact our future relationship in any capacity. If you would like to participate, please respond to [email address], within two weeks (18-April-2023), and by doing so you indicate that you have read and understand the information attached and are giving your free, voluntary, and informed consent to participate in this project. However, your decision to participate at this stage does not limit your ability to withdraw consent at any time within the course of this research without prejudice. I will hold your decision whether or not to participate in confidence.

As a participant in this research or subsequently due to your decision to withdraw, you can contact Royal Roads University for free and confidential counselling service (in person, over the phone or on Zoom), should this research have impacted you in any way.

Please feel free to contact me at any time should you have additional questions regarding this thesis research and its outcomes at [email address]. Thank you for taking the time to review the information attached and your consideration to participate in this research. Please keep a copy of this information letter for your records.

Sincerely,
Victoria Jane Harris

[email address]

I would like to acknowledge I am deeply grateful to live on the unceded, traditional ancestral territories of the Coast Salish People: the x^wməθk^wəyəm (Musqueam), Skwxwú7mesh (Squamish) and Stó:lō and Səlilwətaʔ/Selilwitulh (Tseil-Waututh) First Nations. As a healthcare professional, I recognize that there is systemic racism within and throughout our healthcare organizations, and that we have the responsibility and power to create culturally safe and appropriate environments of care.

Appendix I: Information Letter – Subject Matter Expert

Date: dd-mm-yyyy

Title: The Heart of the Matter: Non-Positional Leadership and Psychological Safety in Cardiothoracic Programs

Dear [Subject Matter Expert Name],

My name is Victoria Jane Harris, I am a clinical perfusionist and specialize in extracorporeal technology, operating the cardiopulmonary bypass (CPB) machine during heart surgery in the operating room and extracorporeal membrane oxygenation (ECMO) within the intensive care units, while working as part of a multidisciplinary team within the cardiothoracic program. I am currently completing my research thesis project as part of my fulfilment for a Master of Arts in Leadership - Health degree at Royal Roads University, Canada. My credentials with Royal Roads University can be confirmed by contacting the program director, Dr. Cheryl Heykoop, MA - Leadership, School of Leadership Studies at [email address].

Purpose of Research

Using a first-person action research methodology this inquiry aims to identify and articulate actionable changes I, Victoria Jane Harris, can make within my own professional practice to support a psychologically safe working environment. My motivation to pursue this capstone includes personal experiences of feeling unsafe within this environment, its impact on my mental health and wellbeing, patient safety, and hearing others with similar concerns. My hope is this thesis will provide an avenue to open a dialogue on this phenomenon within cardiothoracic programs and may in some way help support other individuals who can relate to this research topic. The principal inquiry question at the heart of this research is:

How might I, Victoria Jane Harris, foster psychological safety, as a frontline healthcare professional in a non-positional leadership role to strengthen my mental health and well-being and the quality of care patients receive within the context of a cardiothoracic program?

Participation and Information Collected

The research will include two qualitative methods including self-reflective journaling by the primary investigator, Victoria Jane Harris, and one-on-one interviews with feedback participants and subject matter experts. Action research is cyclical in nature, I will complete three cycles of data gathering, and each cycle consists of two weeks of personal journaling followed by one-on-one interviews. Each cycle allows for reflection and the articulation of actionable changes I can make within my practice and explore in the following cycle.

Firstly, within personal daily journaling I will reflect on experiences I have encountered as they pertain to psychological safety where I will explore my observations, reactions, judgements, and interventions in the workplace environment. In addition, I will utilize quantitative psychological safety and self-compassionate measurement tools adapted from the literature within this process.

Participant engagement will be through one-on-one interviews including healthcare professionals within the multidisciplinary team (e.g., nurses, perfusionists, and physicians) and subsequently

subject matter expert(s) in psychological safety and/or self-compassion practices. I will meet virtually with participants for three 60-minute one-on-one interviews utilizing both Otter audio recording (www.Otter.ai) and Zoom (www.zoom.us) platforms over a period of twelve-weeks. During one-on-one interviews with feedback participants, I will seek to explore the varying perspectives of psychological safety through a narrative dialogue consisting of open-ended questions and up to two scenarios that participants will be asked to place themselves as the primary recipient of that interaction. The aim is to remove my interpretation of the scenario and seek participant's insights from a different lens. As a result, providing me with the opportunity to uncover and expose assumptions, biases, and behaviours within my practice and broaden my perspective, receiving valuable insights that I cannot know on my own. Interview questions and scenarios will be electronically presented to the participant's one-week prior to scheduled interview dates, to allow for reflection, which will subsequently be discussed within the interview, however no prior preparation is required unless participants deem this necessary.

Subsequently, I will meet with subject matter expert(s) and explore emergent themes and/or issues I have identified and seek their expertise to deepen my understanding, challenge my assumptions, and provide vital feedback in fostering psychologically safe practices and/or mental health and well-being strategies which I will then take forward into my professional practice during subsequent weeks of my research.

Concluding each one-on-one interview, I will review auto-transcriptions for errors and/or shortcomings of the platform and a written copy shall be electronically returned via email to participants within 48 hours to ensure a true reflection of our discussion. Participants are asked to highlight, within 10 days of receiving the transcription, any amendments and/or discrepancies within this document. It is anticipated the time required to dedicate to this research over the 12-weeks will be approximately nine hours.

On completion of the third and final interview I will then move into analyzing data generated from personal journaling and one-on-one interviews, using a process known as thematic analysis. Thematic analysis identifies themes and patterns within all written documents that emerge which are then coded into words or short phrases. It is important that this process reflects findings that are consistent with participant's experiences and reflections, therefore participants will be offered the opportunity to review draft findings and comment as to the relevancy from their perspective. Participants will receive a copy of draft findings in August, 2023.

Sharing Results

My final thesis report shall be submitted to Royal Roads University in partial fulfillment for a Master of Arts in Leadership - Health degree, subsequently I will complete of an oral defence (participants will be invited via email to attend virtually), and the thesis document shall be published on ProQuest (www.proquest.com). I plan to present and share my thesis through a presentation at a professional academic healthcare conference, which I will invite participants to attend, via email, if they desire to do so. Finally, I will generate a meaningful output product that may support others, a package to assist busy healthcare professionals in non-positional leadership roles to support their emotional intelligence, mental health, and well-being. I believe as healthcare workers we prioritize our patients over ourselves, which may be a result of the fast paced, high-stakes environments in which we work. Therefore, through this resource I hope to

support healthcare workers in these complex environments while fostering psychological safety within ourselves, teams, programs, and organizations through the knowledge we have created. Participants will receive the option of receiving a hard copy (via Canada Post) and/or electronic copy of this resource in December 2023.

Benefits and Risks to Participant

It is anticipated that there will be minimal risk to the participants in this study. Participants will not be pressured to share specifics that they do not wish or feel comfortable to share. Data generated from participants will be collective in nature and will not represent one person's specific thoughts or contributions. Information, specifically verbatim comments, will at no time be attributed to any individual and used only if a specific agreement between the participant and principal investigator has been obtained beforehand. Of note, utilizing a zoom platform data may be stored in the USA. Data stored on servers in the USA may be subject to examination by the US government under the USA Patriot Act. While this likelihood is small, I am required to let you know this possible risk.

Participants in this research or subsequently due to your decision to withdraw, have access to free and confidential counselling service at Royal Roads University (in person, over the phone, or on Zoom), should this research have impacted you in any way. To book an appoint please contact:

Royal Roads University Counselling

Phone: [email address] or

Email: www.royalroads.ca/student-counselling (online booking system)

As a subject matter expert participant, my hope is there are benefits for you from participating in this research. To my knowledge there has been little qualitative research on transformational change, instigated from frontline healthcare workers, to nurture psychologically safe environments within cardiothoracic programs that support individuals' mental health and well-being. Through this research we may be able to contribute further insight within the literature that can be applied more broadly to support other individuals, teams, and professions.

Confidentiality, Security of Data, and Retention Period

Your anonymity, privacy, and confidentiality throughout this research and all information collected will be maintained in the strictest of confidence. Hard copies of interview notes, transcripts, and consent forms will be stored in a locked filing cabinet within my home that only I have access to. Electronic copies of files will be kept on a secure network that is password protected within my home. Finally, data will be kept until December 5, 2024, at which time hard copies will be confidentially shredded and electronic and audio files will be permanently deleted. Information in written format will be coded anonymously and at no time will any specific comments be attributed to any individual unless specific agreement has been obtained beforehand. All documentation will be kept strictly confidential.

Procedure for Withdrawing from the Study

If you feel that there are any risks to you in participating in this research, you are not required to participate and/or if any risks present themselves during this research you are *always* free to withdraw at any stage without prejudice. In such a situation, please email me of your decision at [email address], this shall be acknowledged in writing via email within 48 hours and all information that corresponds with your participant identification number shall be confidentially shredded and permanently deleted from electronic and audio files. Your decision to withdraw from the project shall remain confidential.

Of note, it may not be possible to remove feedback you have provided, due to the cyclical and sequential nature of this research design, during our interview discussions as these may have influenced actionable changes I have considered and embedded within my practice through the twelve-week research process.

If you have any additional questions regarding the project and its outcomes, please contact me at [email address]. By replying directly to this email request for participation and by signing the consent form (Consent Forms – Feedback Participants and Subject Matter Experts) you indicate that you have read and understand the information above and give your free and informed consent to participate in this project. Thank you for taking the time to review the information attached and your consideration to participate in this research. Please keep a copy of this information letter for your records.

Sincerely,
Victoria Jane Harris

[email address]

I would like to acknowledge I am deeply grateful to live on the unceded, traditional ancestral territories of the Coast Salish People: the x^wməθk^wəyəm (Musqueam), Skw̓xwú7mesh (Squamish) and Stó:lō and Səlilwətaʔ/Selilwitulh (Tseil-Waututh) First Nations. As a healthcare professional, I recognize that there is systemic racism within and throughout our healthcare organizations, and that we have the responsibility and power to create culturally safe and appropriate environments of care.

Appendix J: Cohort Peer Information Letter

dd-mm-yyyy

Title: The Heart of the Matter: Non-Positional Leadership and Psychological Safety in Cardiothoracic Programs

Dear [Cohort Peer Name],

My name is Victoria Jane Harris, I am a clinical perfusionist and specialize in extracorporeal technology, operating the cardiopulmonary bypass (CPB) machine during heart surgery in the operating room and extracorporeal membrane oxygenation (ECMO) within the intensive care units, while working as part of a multidisciplinary team within the cardiothoracic program. I am currently completing my research thesis project as part of my fulfilment for a Master of Arts in Leadership - Health degree at Royal Roads University, Canada. My credentials with Royal Roads University can be confirmed by contacting the program director, Dr. Cheryl Heykoop, MA - Leadership, School of Leadership Studies at [email address].

Purpose of Research

Using a first-person action research methodology this inquiry aims to identify and articulate actionable changes I, Victoria Jane Harris, can make within my own professional practice to support a psychologically safe working environment. My motivation to pursue this capstone includes personal experiences of feeling unsafe within this environment, its impact on my mental health and wellbeing, patient safety, and hearing others with similar concerns. My hope is this thesis will provide an avenue to open a dialogue on this phenomenon within cardiothoracic programs and may in some way help support other individuals who can relate to this research topic. The principal inquiry question at the heart of this research is:

How might I, Victoria Jane Harris, foster psychological safety, as a frontline healthcare professional in a non-positional leadership role to strengthen my mental health and well-being and the quality-of-care patients receive within the context of a cardiothoracic program?

Participation and Information Collected

The methodology utilized within this research will be first-person action research. First-person action research focuses on the self-development, critiquing, and learning within one's own current professional practice and sphere of influence through personal cycles of change. Subsequently, through reflection and evaluation changes can be implemented into future practice that may be effective in fostering desired personal performances/interactions. First-person-focused action research is a continuous cycle of planning, acting, observation, and reflection into one's own behaviours and creates opportunities to engage with others, mitigating researcher bias and broadening individual perspectives and understandings of experiences and actions.

The research will include two qualitative methods including self-reflective journaling by the primary investigator, Victoria Jane Harris, and one-on-one interviews with feedback participants and a subject matter expert. Action research is cyclical in nature, I will complete three cycles of

data gathering, and each cycle consists of two weeks of personal journaling followed by one-on-one interviews. Each cycle allows for reflection and the articulation of actionable changes I can make within my practice and explore in the following cycle.

Firstly, within personal daily journaling I will reflect on experiences I have encountered as they pertain to psychological safety where I will explore my observations, reactions, judgements, and interventions in the workplace environment. In addition, I will utilize quantitative psychological safety and self-compassionate measurement tools adapted from the literature within this process.

Participant engagement will be through one-on-one interviews including healthcare professionals within the multidisciplinary team (e.g., nurses, perfusionists, and physicians) and subsequently a subject matter expert in psychological safety and/or self-compassion practices. I will meet virtually with participants for three 60-minute one-on-one interviews utilizing both Otter audio recording (www.Otter.ai) and Zoom (www.zoom.us) platforms over a period of twelve-weeks. During one-on-one interviews with feedback participants, I will seek to explore the varying perspectives of psychological safety through a narrative dialogue consisting of open-ended questions and up to two scenarios that participants will be asked to place themselves as the primary recipient of that interaction. The aim is to remove my interpretation of the scenario and seek participant's insights from a different lens. As a result, providing me with the opportunity to uncover and expose assumptions, biases, and behaviors within my practice and broaden my perspective, receiving valuable insights that I cannot know on my own. Interview questions and scenarios will be electronically presented to the participant's one-week prior to scheduled interview dates, to allow for reflection, which will subsequently be discussed within the interview, however no prior preparation shall be required unless participants deem this necessary.

Subsequently, I will meet with a subject matter expert and explore emergent themes and/or issues I have identified and seek their expertise to deepen my understanding, challenge my assumptions, and provide vital feedback in fostering psychologically safe practices and/or mental health and well-being strategies which I will then take forward into my professional practice during subsequent weeks of my research.

Concluding each one-on-one interview, I will review auto-transcriptions for errors and/or shortcomings of the platform and a written copy shall be electronically returned via email to participants within 48 hours to ensure a true reflection of our discussion. Participants are asked to highlight, within 10 days of receiving the transcription, any amendments and/or discrepancies within this document. It is anticipated the time required to dedicate to this research over the 12-weeks will be approximately eleven hours.

On completion of the third and final interview I will then move into analyzing data generated from personal journaling and one-on-one interviews, using a process known as thematic analysis. Thematic analysis identifies themes and patterns within all written documents that emerge which are then coded into words or short phrases. It is important that this process reflects findings that are consistent with participant's experiences and reflections, therefore participants will be offered the opportunity to review draft findings and comment as to the relevancy from their

perspective. Feedback and subject matter participants will receive a copy of draft findings in August, 2023.

As a cohort peer participant, your role would include inviting three feedback participants to participate within my research via email correspondence, this aims to reduce any emerging horizontal power dynamics as a result of previously established relationships I have with participants (professional and personal friendships). A 120-minute one-on-one interview with the principal investigator, Victoria Jane Harris, during a pilot cycle of the research to discuss my journaling practice during the former weeks, reviewing the interview questions designed for feedback participants, and an opportunity for me to utilize the technology prior to commencing my research. Finally, a 120-minute one-on-one interview with the principal investigator at the latter stages of my research where I would seek your feedback on my data analysis to ensure there is another perspective to challenge or validate my thoughts to date. It is anticipated the time dedicated to this research as a cohort peer would be approximately 6 hours.

Sharing Results

My final thesis report shall be submitted to Royal Roads University in partial fulfillment for a Master of Arts in Leadership – Health degree, subsequently I will complete of an oral defense (participants will be invited via email to attend virtually), and the thesis document shall be published on ProQuest (www.proquest.com). I plan to present and share my thesis through a presentation at a professional academic healthcare conference, which again I will invite all participants to attend, via email, if they desire to do so. Finally, I will generate a meaningful output product that may support others, a package to assist busy healthcare professionals in non-positional leadership roles to support their emotional intelligence, mental health, and well-being. I believe as healthcare workers we prioritize our patients over ourselves, which may be a result of the fast paced, high-stakes environments in which we work. Therefore, through this resource I hope to support healthcare workers in these complex environments while fostering psychological safety within ourselves, teams, programs, and organizations through the knowledge we have created. Participants will have the option of receiving a hard copy (via Canada Post) and/or electronic copy of this resource in December 2023.

Benefits and Risks to Participant

It is anticipated that there will be minimal risk to the participants in this study. Participants will not be pressured to share specifics that they do not wish or feel comfortable to share. Data generated from participants will be collective in nature and will not represent one person's specific thoughts or contributions. Information, specifically verbatim comments, will at no time be attributed to any individual and used only if a specific agreement between the participant and principal investigator, Victoria Jane Harris, has been obtained beforehand. Of note, utilizing a zoom platform data may be stored in the USA. Data stored on servers in the USA may be subject to examination by the US government under the USA Patriot Act. While this likelihood is small, I am required to let you know this possible risk.

Participants in this research or subsequently due to your decision to withdraw, have access to free and confidential counselling service at Royal Roads University (in person, over the phone,

or on Zoom), should this research have impacted you in any way. To book an appoint please contact:

Royal Roads University Counselling
Phone: [telephone number] or
Email: [email address] (online booking system)

As a cohort peer participant, my hope is there are benefits for you from participating in this research. To my knowledge there has been little qualitative research on transformational change, instigated from frontline healthcare workers, to nurture psychologically safe environments within cardiothoracic programs that support individuals' mental health and well-being. Through this research we may be able to contribute further insight within the literature that can be applied more broadly to support other individuals, teams, and professions.

Confidentiality, Security of Data, and Retention Period

Your anonymity, privacy, and confidentiality throughout this research and all information collected will be maintained in the strictest of confidence. Hard copies of interview notes, transcripts, and consent forms will be stored in a locked filing cabinet within my home that only I have access to. Electronic copies of files will be kept on a secure network that is password protected within my home. Finally, data will be kept until December 5th, 2024, at which time hard copies will be confidentially shredded and electronic and audio files will be permanently deleted. Information in written format will be coded anonymously and at no time will any specific comments be attributed to any individual unless specific agreement has been obtained beforehand. All documentation will be kept strictly confidential.

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Of note, it may not be possible to remove feedback you have provided, due to the cyclical and sequential nature of this research design, during our interview discussions as these may have influenced actionable changes I have considered and embedded within my practice through the twelve-week research process.

If you have any additional questions regarding the project and its outcomes, please contact me at [email address]. By replying to this e-mail request for participation and by signing the consent form (Consent Forms – Cohort Peer) you indicate that you have read and understand the information above and give your free and informed consent to participate in this project. Thank you for taking the time to review the information attached and your consideration to participate in this research. Please keep a copy of this information letter for your records.

Sincerely,
Victoria Jane Harris
[email address]

I would like to acknowledge I am deeply grateful to live on the unceded, traditional ancestral territories of the Coast Salish People: the x^wməθk^wəy^{əm} (Musqueam), Skwxwú7mesh (Squamish) and Stó:lō and Səlilwətaʔ/Selilwitulh (Tsleil-Waututh) First Nations. As a healthcare professional, I recognize that there is systemic racism within and throughout our healthcare organizations, and that we have the responsibility and power to create culturally safe and appropriate environments of care.

Appendix K: Consent Forms – Feedback Participants, Subject Matter Experts, and Cohort

Peer

Date: dd-mm-yyyy

The Heart of the Matter: Non-Positional Leadership and Psychological Safety in Cardiothoracic Programs

Dear [Feedback Participant, SME, or Cohort Peer Name],

By signing this form, you agree that you are over the age of 19 and have read the information letter for this thesis research. Your signature states that you are giving your voluntary and informed consent to participate in this project, that you agree to the one-on-one interviews being audio-recorded via Zoom (www.zoom.us) and Otter (www.otter.ai) technology. The data you contribute will be used in the final thesis paper, conference presentations, and knowledge output product (e.g., healthcare worker resource package). In addition, you acknowledge that the principal investigator, Victoria Jane Harris, has empathized your rights as a participant and that as per the *Tri-Council Policy Statement: Ethical Conduct for Research Involving Humans* (Canadian Institutes of Health Research et al., 2018) she has articulated it is your right to withdraw at any point without reason.

- I consent to the use of material gained through virtual one-on-one interviews being used in this study and the resulting paper.
- I consent to quotations and excerpts expressed by me through virtual one-on-one interviews be included in this study, provided that my identity is not disclosed.
- I consent to the use of material I have contributed being used in any scholarly article, conference presentations and/or resource package.

Participant

First Name and Last Name (please print)

Email

Phone (optional)

Virtual attendance to thesis oral defense

Yes

No

Undecided currently

Interest in attending professional
scientific presentation

- Yes
 No
 Undecided currently

Interested in receiving copy of knowledge
output product

- Yes
 No
 Undecided currently
 Address for delivery (optional)

Signature

Date

*Participant indicator number
(assigned by principal investigator)*

Principal Investigator Only

First Name and Last Name

Victoria Jane Harris

Signature

Date

Home Address

[Address]

Reference

Canadian Institutes of Health Research, Natural Sciences and Engineering Research Council of Canada, & Social Sciences and Humanities Research Council of Canada. (2018). *Tri-council policy statement: Ethical conduct for research involving humans: TCPS2 2018*. <https://ethics.gc.ca/eng/documents/tcps2-2018-en-interactive-final.pdf>

Appendix L: Feedback Participant – Discussion Agenda

Over the course of a nine-week period, I will meet virtually with my feedback participants on three occasions, once after round one, two, and three. The following agenda serves as a guideline for these dialogues.

Table E1

Interview Identifiers

Identifiers	Details
Date and time	
Meeting URL	
Cycle number	
Participant code	

Table E2

Interview Agenda

Agenda	Estimated Time	Who
Introductions Informal check-in Land acknowledgement Tri-Council Policy statement, consent to participate, and support resources available	10 mins	All
Open ended questions (see Tables E3, E4, and E5)	45 mins	Participant
Concluding comments Next steps - review of transcript (10-day response) Check-out	5 mins	All

Table E3*Cycle 1 Current State*

Questions
1. What does the term psychological safety in cardiothoracic programs mean to you? Probe for encouraging behaviours and those that signal psychological safety is lacking.
2. How does being a frontline healthcare worker rather than an individual with a leadership title (e.g., head of department, charge nurse, program manager) inform your perspective towards psychological safety?
3. When you have experienced a difficult/painful situation at work as a result of a negative interaction with a co-worker what self-compassionate act was helpful to you? Probe for compassion acts displayed towards you in these moments if witnessed.
4. What current resources are available to you as a healthcare worker within the program to support your mental health and well-being?

Table E4*Cycle 2 Ideal Future*

Questions
1. What would be an ideal cardiac multidisciplinary setting, interaction, and outcome when discussing a patient adverse event, you were involved with, how would that look?
2. What would be an ideal interaction and outcome after engaging with a co-worker regarding a professional conflict?
3. How would you describe your ideal healthcare environment that supports your mental health and well-being? <i>Probe for resources and interventions available?</i>

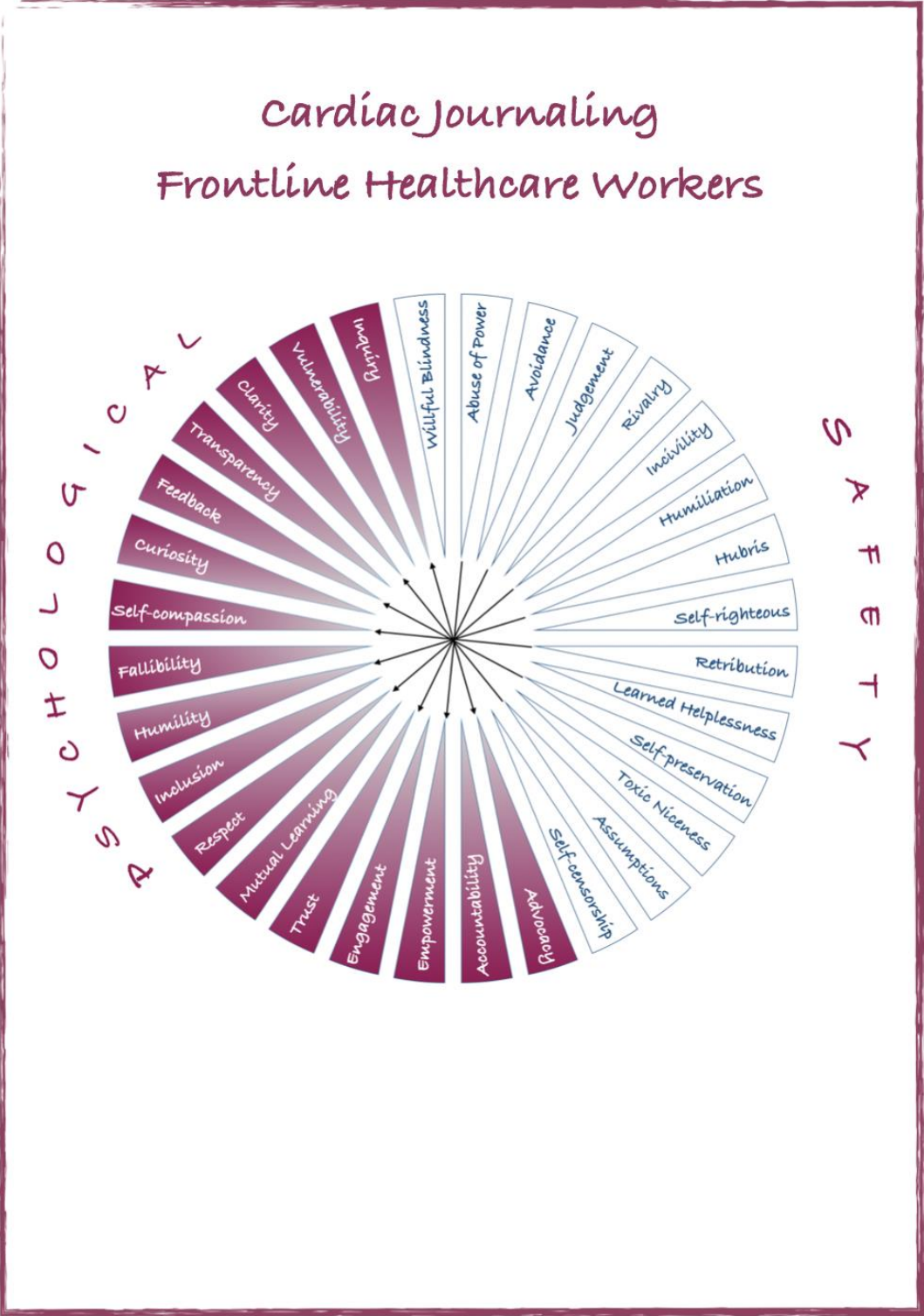
Table E5*Cycle 3 Barriers and Improvement Strategies*

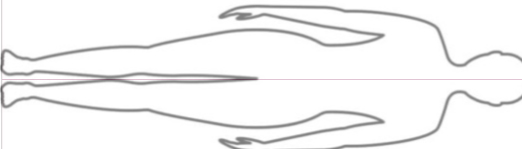
Questions

1. What are some barriers/challenges you identify that limit your ability to speak-up within the multidisciplinary setting and/or to your leadership team member? What do you believe would happen? *Probe for environmental factors e.g., settings - rounds, noise; clinical factors e.g., workload, staffing; mental health and well-being e.g., resilience, burnout*
2. Do you know of any policies available to frontline healthcare workers for reporting concerns? How effective are these policies? *Probe participant to name policies.*
3. Are there any factors that influence your ability to speak-up to frontline members of your own profession that differ from other professions? For example, between nurse and nurse, nurses and physicians, and nurse and perfusionist?

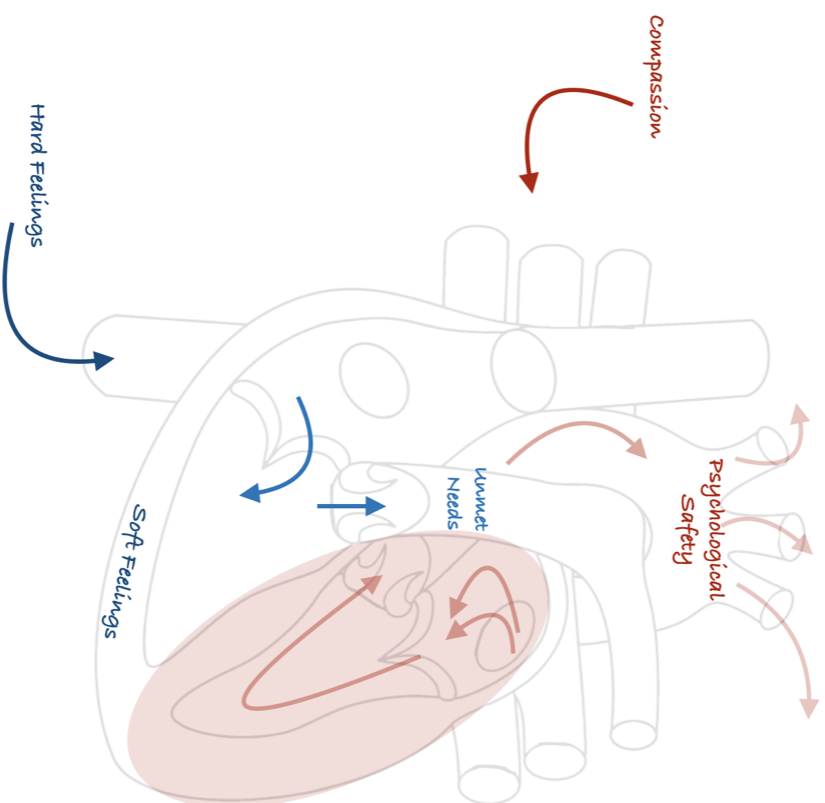
Note. Interview questions will generate data to gain an in-depth understanding of individual experiences of psychological safety and mental health and well-being to explore emerging differences compared to my personal journaling and reflections.

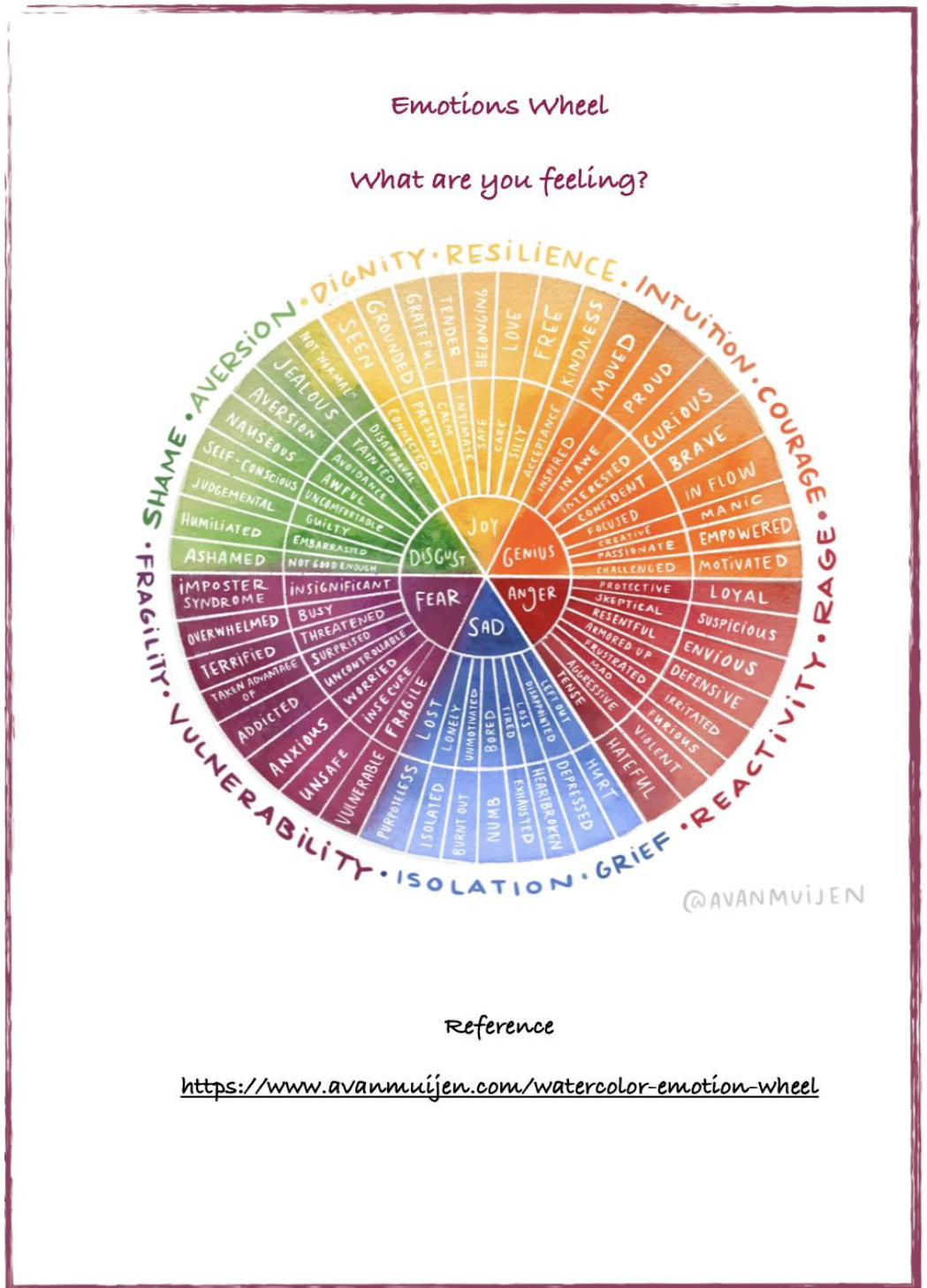
Appendix M: Knowledge Output Product



<p>What did I think and feel?</p>	<p>What was actually said?</p>
	
<p>Reflection: What thinking and actions lead to undesirable results?</p>	

MINDFUL SELF-COMPASSION





Reference

<https://www.avanmuijen.com/watercolor-emotion-wheel>

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