THE IMPACT OF INTERDEPARTMENTAL PSYCHOLOGICAL SAFETY ON

INTERDEPARTMENTAL CONFLICT MANAGEMENT STYLES

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ABSTRACT

Conflict is an inevitable part of life, and organizations spend a sizable amount of time addressing it. Literature has shown a connection between conflict management styles and psychological safety, but little research has been afforded to these interactions applied across departments. Data were collected from various companies across the United States using an anonymous survey to quantify respondents' perceived level of general psychological safety, interdepartmental psychological safety, and preferred styles of conflict management. The results of this study indicated that a significant difference between interdepartmental and general psychological safety exists and is positively correlated with each other. Furthermore, certain styles of conflict management showed correlations to the raising and lowering of interdepartmental psychological safety. The results of this study will be helpful to managers and employees by illuminating how the interdepartmental psychological safety level of a company influences an individual's propensity toward certain conflict management styles when addressing interdepartmental conflict.

DEDICATION

To my amazing parents and loving partner who have supported me unconditionally throughout this entire process.

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TABLE OF CONTENTS

LIST OF FIGURES

LIST OF TABLES

CHAPTER I

INTRODUCTION

Conflict is an inevitable force that permeates most organizations and influences both employees and managers alike (Shah and Nowocin, 2015; Sudhakar, 2015; Thakore, 2013; Zhu, 2013). As organizations expand and small teams transform into larger ones, conflict evolves as well. Research has indicated that current project managers spend at least 20% of their time dealing with conflict of some nature throughout the day, and this number doesn't appear to be growing smaller (Sudhakar, 2015).

While the colloquial understanding of conflict tends to lean towards the potential negative outcomes, conflict has neither a negative nor a positive connection on its face value. Instead, managers and employees alike must learn how to manage conflict to either realize the benefit or resolve the issue. Typically, conflict is managed through one of five major styles of conflict management: collaboration, compromise, accommodation, competition, or avoidance (Kilmann & Thomas, 1975). The style of conflict management that is applied is typically a very personal choice based on many different individual and specific factors (Sudhakar, 2015).

Ma et al. (2008) and Caputo et al. (2018) found a rapidly growing, contemporary body of knowledge for conflict management theories and practices that expands into many different fields of study. One of the areas becoming increasingly more prevalent in the research is how the psychology of employees and their work environment influences the prevalence of certain conflict

management techniques. A select few of these studies are focused on how the psychological safety factor of a company impacts how conflict is managed.

The psychological safety factor of a company can be loosely defined as employees' perception of acceptance in which they can speak up, share ideas, and express concerns without fear of negative repercussions. Having a high psychological safety factor within a company has been shown to increase many different key indicators of organizational performance such as employee satisfaction and retention among others (Carmeli et al., 2009; Chughtai, 2020; Edmondson, 2019; Tofte, 2016). Likewise, an increase in psychological safety factor is tied to more beneficial forms of conflict management and is therefore a desirable state (Kostopoulos & Bozionelos, 2011; Tofte, 2016; Zengetwa, 2020, Zhu, 2015).

Since 2023, research has been focused on the interplay between either direct peer-to-peer or manager-to-employee based conflict management and psychological safety. Few research studies included inter-team-based conflict management and psychological safety. Instead, past studies were focused on the interplay within similar working groups while neglecting how conflict management and psychological safety may play out in cross-functional teams across different departments. Studying the specific interplay between interdepartmental issues is critical because communication and comfort are a key part in both the creation and result of psychological safety (Edmondson, 1999, 2004, 2019).

When the frequent communication typically seen amongst peers and their direct supervisors is replaced with more infrequent interactions characteristically seen within cross-functional teams and departments, both the environment and decision inputs potentially change. As of 2023, no known research was focused on the influence of psychological safety level on

conflict management style used in interdepartmental conflict. The current study will address both conflict management styles and psychological safety on the interdepartmental level.

1.1 Problem Statement

Conflict management is an ongoing issue in the field of management across industries. Predominantly, prior research was focused on the interaction between either peers or cross-functional teams as the primary interaction most employees deal with on a day-to-day basis. However, interaction between departments is becoming increasingly more common as the complexity and interconnectedness of modern business grows. Unlike the high frequency of peer-to-peer interactions within the same department or in cross-functional teams, workers do not always function directly with those from outside departments frequently enough to build the same rapport.

A prime example of this issue would be conflict arising between the engineering department and fabrication department of a company producing products. An employee from the fabrication department may notice that a particular feature on a product causes an issue somewhere within their process. To work towards a resolution, the fabrication department employee needs to address this issue with the requisite engineer from the engineering department to come up with a solution and address concerns.

In an environment where the fabrication department employee does not feel psychologically safe to speak to the engineer, they may choose the avoiding style hoping that the conflict will resolve itself without having to put themselves in the vulnerable spot of pointing out a potential engineering failure. In contrast, in a high psychologically safe environment, the

fabrication department employee may feel confident that they can bring up issues without being dismissed or ridiculed and decide on the collaborating style. By collaborating with the engineer, a solution that addresses both departments' concerns can be more easily reached.

Though many different factors can influence this type of situation, the employee's perceived level of psychological safety could be a primary communication factor in the interdepartmental conflict management style selection. No known research has revealed if and to what extent psychological safety levels influence the conflict management style in interdepartmental conflict situations. Therefore, furthering the understanding of how psychological safety changes throughout an organization when interactions no longer stay specific to closely related individuals may prove significant.

1.2 Objectives of the Study

The objectives of this study are as follows:

i. Overview the existing literature concerning psychological safety and conflict management as related to interdepartmental interactions.

ii. Clarify the relationship between perceived psychological safety and conflict management styles.

iii. Create, distribute, and collect responses on the survey to test hypotheses.

iv. Synthesize data collected and compare it with projected hypotheses.

1.3 Scope of the Study

The research conducted in this study is focused specifically on the relationship between perceived interdepartmental psychological safety and interdepartmental conflict management styles. In the current study, psychological safety will be the predictor while the criterion variable will be conflict management style. Both terms will be described as well as research pertaining to their antecedents and relationship.

1.4 Thesis Overview

This research work is divided into five chapters. In Chapter I, the terms conflict management and psychological safety are introduced, and the study is outlined. In Chapter II, the existing literature for conflict, psychological safety, and teams is examined and discussed along with the specific hypotheses of this study. Chapter III includes the methodology surrounding the survey and research models. In Chapter IV, the data collected from the survey is examined and synthesized. In the final chapter, Chapter V, the research conclusions are drawn and pathways for future research are recommended.

CHAPTER II

LITERATURE REVIEW

Within the current literature, a strong basis for both psychological safety and conflict management exists. The topics of both psychological safety and conflict management have been the focus of many research studies for several decades. The following sections will review the foundation of research for these two factors and will highlight the ties between the two that have already been established. At the conclusion, the hypotheses and research directions related to the literature will be declared.

2.1 Psychological Safety

Much of the modern research on psychological safety comes from Edmondson (1999) who applied psychological conditions to team dynamics in the healthcare industry. Psychological safety primarily relates to an employee's perception of safety to voice ideas, willingly seek feedback, provide honest feedback, collaborate, take risks, and experiment. Heavily related to organizational trust, an organization's psychological safety factor is directly related to how employees cope with failures, develop relationships, and interact with those in the organization (Carmeli & Gittell, 2009).

Newman et al. (2017) conducted a systematic review of the literature where they segmented psychological safety into different measures, behaviors, and outcomes. Based on their research, Newman et al. argued that the current literature is incomplete and listed several areas of

interest for further research. The scope of psychological safety covers many different areas within operational management and appears to have strong ties with leadership, team involvement, organizational communication, and relationships (Carmeli & Gittell, 2009; Edmondson, 1999, 2004; Liu et al., 2018; Newman et al., 2017).

Newman et al. (2017) found that individual and team factors of conflict were amply researched yet very few articles were directed at organizational conflict. A study by Edmondson et al. (2001) was one of the first articles to look at how intraorganizational roles influenced psychological safety in surgical practices. The data revealed that certain divisions or differences apparent between roles in the teams may act as an inhibitor to creating a high psychological safety environment.

Carmeli and Gittell (2009) expanded upon the study by Edmondson et al. (2001), postulating that psychological safety is developed from shared goals, knowledge, and mutual respect. Their study revealed a positive correlation between these factors when determining psychological safety within an organization and was focused on both "high-quality relationships" and the factors related to learning from failures. The authors concluded that shared goals, shared knowledge, and mutual respect did, indeed, have strong correlations with psychological safety and acted as an enhancer to increasing psychological safety.

Edmondson and Lei (2014) conducted a meta-analysis focused on psychological safety and the future direction of research. The authors explained that a positive climate of psychological safety was able to mitigate interpersonal risks and make collaboration more likely. Furthermore, the climate of safety enabled learning and performance when paired with other aspects of strategy, goals, transparency, and leadership.

The combination of conflict management and psychological safety has not received much attention in academic literature. Instead, much of the research tends to focus on other parts of management such as trust, learning, leadership, and organizational impact (Newman et al., 2017). While these traits are shown to be related to psychological safety, further research into the direct impacts, especially related to interdepartmental factors, could prove useful.

2.2 Psychological Safety and Conflict

Erkutlu and Chafra (2015) conducted a study to examine how psychological safety and employee voice along with how a leader's organizational identification mediates cooperative conflict management styles. The authors posited that when trust is present, people are better able to identify with organizations by aligning with their own need for psychological safety. The perceived trust levels in an organization can be directly tied to the psychological safety and employee voice, or the likelihood for employees to speak-up if and when they need to voice a comment of concern. Specifically, the authors found that cooperative styles of conflict management increase perceived psychological safety levels, promote employees to be more involved, and affect positive organizational identification. This identification is tied to an increase in beneficial behaviors and outcomes.

The results of the study (Erkutlu & Chafra, 2015) showed strong evidence that more cooperative conflict management systems are likely indicators of an increase in employee identification. The authors further posited the reasoning as being an increase in employee-leader trust leading to more willingness to voice ideas, challenge the status quo, and make suggestions which increase the relation the employee feels within the organization.

The implications of Erkutlu and Chafra's (2015) conclusion support the idea that using a

cooperative system of conflict management can lead to an increase in psychological safety levels as perceived by the employees through more organizational identification. Erkutlu and Chafra argued that very little research exists which was focused on the organization rather than the individual conflict. While this study is a first step in that direction, more research is needed to confirm the causality of the models presented.

2.3 Conflict

The academic consensus on conflict, regardless of type, is that it is inevitable, cyclic in nature, and affects all areas of an organization (Bercovitch, 2014; Cohen, 2010; Sudhakar, 2015; Shah & Nowocin, 2015; Thomas, 1992; Zhu, 2013). Conflict in business is neither good nor bad and is even believed to be a necessary and helpful component of the life of a project or team (Shah & Nowocin, 2015; Sudhakar, 2015; Tjosvold, 2006; Zhu, 2013; Zengetwa, 2020). Authors have argued both positive and negative outcomes can come from conflict. However, the appropriate use of conflict management skills typically determines the outcome (Barki & Hartwick, 2001; Rahim, 2011; Tjosvold, 2006; Zhu, 2013).

Conflict has roots in many areas of research and has been defined in many ways. Mack and Snyder (1957) synthesized the existing literature at the time and outlined the idea of a conflict to be a behavior due to scarcity between at least two parties where actions and interactions are mutually opposed. Later, Thomas (1992) further defined conflict as "the process which begins when one party perceives that another has frustrated, or is about to frustrate, some concern of his" to offer a specific point in which the social/work process switches into conflict process. Currently, conflict has been outlined as a situation that occurs when at least two parties have incompatible interests, outcomes, and/or goals (Cohen, 2010; Deutsch, 1973; Shah & Nowocin, 2015; Sudhakar,

2015; Zhu, 2013).

Conflict can arise from competitive and cooperative situations (Deutsch, 1973) and can be broken down into two major types, task conflict and relationship conflict. In both types of conflict, outcomes are either acting as functional or dysfunctional to the team, organization, or project (Pierce et al., 2007; Sudhakar, 2015). According to these classifications, a task conflict involves a conflict in task-oriented processes in which a difference in decisions related to the process, function, or completion of the task exists. In contrast, relationship conflict involves differences in individuals and personalities within the group. Functional conflicts tend to be constructive in the result while dysfunctional conflicts are more destructive in the outcome.

The current study is focused on conflict as a whole and does not address a specific conflict type. However, understanding the types of conflict is important as the means by which an employee addresses the conflict may be specific to the type of conflict being addressed. As the interaction level between individuals across departments is presumed to be lower than that of individuals in the same working group, the parties could potentially see a prevalence of task-based conflict as opposed to relationship conflict as the interactions may be specifically related to tasks in which both departments are cooperating on.

2.4 Conflict Management Styles

The topic of conflict management has been a growing area of study in the field of engineering management and has generally been classified with five major conflict management styles: avoid, accommodate, compromise, compete, and collaborate (Shah & Nowocin, 2015; Kilmann & Thomas, 1975) with many more methods coming from negotiation and psychology. Choosing between these methods is done only after assessing the situation and possible outcomes

of the conflict with special consideration given to the importance of the relationships and tasks associated with the given project.

According to Shah and Nowocin (2015), people can use the avoidance styles of conflict management when the importance of the relationship and tasks at hand is low. The accommodating approach works best when the relationship is of higher importance than the tasks while competing is used when the task outcome far outweighs the relationship. When both the relationships and tasks are moderately important, compromising tends to be the ideal direction. However, if they are both vitally important to the project at hand, collaboration is preferred.

These five principles are the generally accepted methods, but naming does vary. However, they all tend to fall under the ideas of assertive and cooperative behaviors where assertion lends better to task conflict and cooperation to relationship conflict. Weider-Hatfield and Hatfield (1996) and Meyer (2004) likewise showed a link between cooperative and uncooperative conflict management systems where the cooperative methods showed generally more positive outcomes while the uncooperative methods led to negative outcomes.

Following a meta-analysis by Ma et al. (2008), Caputo et al. (2018) examined over 700 articles sampled from the previous ten years about conflict and conflict management and showed a trend of increased publication. Furthermore, various areas such as how conflict management relates to negotiation, gender, emotional intelligence, and more also showed an increased scope. As the field of conflict management continues to expand into other areas of study, the sphere of influence will likely continue to grow as well.

2.5 Conflict Management Techniques in Projects

Sudhakar (2015) conducted a meta-analysis of conflict management techniques in projects

and reviewed the impact on the team, project, and organization by analyzing the management styles and reasons for conflict. The study outlined the current literature and presented models for conflict and the conflict management process based on major studies within the field. The results from the study helped outline the major styles of conflict management and their perception as applied to project-based conflict.

Sudhakar (2015) tabulated the different conflict management techniques, listing them based on the number of occurrences as well. As the author examined literature outside of purely engineering management studies, Sudhakar found a total of forty different techniques, far above the standard five mentioned by Kilmann and Thomas (1975). The study listed the techniques most mentioned are avoiding, compromising, confronting, accommodating, and smoothing with competing and collaborating falling close behind. Some of the techniques found by Sudhakar are close analogs of the standard five styles changed primarily in name but could be explained by training, culture, or specific organizational standards.

Furthermore, Sudhakar (2015) collected the reasons for conflict within projects. The author argued that, from a total of 105 reasons for conflict within projects, seven of the top ten reasons for conflict revolved around task-based conflict. These results indicate that project conflict is rooted more in task conflict than relationship; therefore, determining a method to address task-based conflict could have a large impact on beneficially resolving problems within projects. Moreover, many of the studies that Sudhakar analyzed address organizational conflict, specifically intergroup dynamics, and not just individual conflict.

In listing the different styles of conflict management and instigators of conflict, Sudhakar (2015) outlined the most common occurrences. While Sudhakar did not provide direct ties to how styles can be applied, he detailed the methods and systems in place to choose the best style.

12

Sudhakar explained that the systems outlined in the study were created to be flexible as the nature of task and relationship conflict allow for dynamic input from the project manager to best fit the solution to the desired outcome.

Since conflict is neither good nor bad (Shah & Nowocin, 2015; Sudhakar, 2015; Tjosvold, 2006), the outcomes of conflict can be tied to the resolution techniques applied. Sudhakar (2015) explained that the implementation of proper conflict management techniques is a crucial process in which project managers stimulate the necessary conflict to create functional, cooperative solutions. As the impact of the conflict can influence all levels of the project, reviewing the frequency of use for each style of conflict management is important in determining the effectiveness and further steps.

As mentioned in Section 2.4, the five types of conflict have been split into two groups: cooperative and uncooperative. The reason for the split is that studies have shown that, in general, the cooperative styles of conflict management have shown a higher propensity towards beneficial outcomes and organizational improvements when related to task task-based conflict (Meyer, 2004; Sudhakar, 2015; Weider-Hatfield & Hatfield, 1996). Specifically, the study conducted by Weider-Hatfield and Hatfield elaborated on how the relationships among conflict management styles affected the organizational improvement in various areas. The results showed that, when applied to intragroup and intergroup conflict, the collaborating, compromising, and accommodating styles showed a significant correlation with positive outcomes. Therefore, the authors posited that implementing these approaches could mitigate the negative outcomes of conflict.

2.6 Intradepartmental Conflict

The causes of interdepartmental conflict vary depending on the types of departments

involved (Van Tonder, 2012). The type of conflict will also depend on the reason behind the interaction. Assuming the interaction level between departments is lower than that within the standard work group, it can be assumed that the instigation of conflict would be about a task related issue related to the workings of each department instead of a relationship conflict brought on by interaction. For example, employees unsure about their responsibilities on a project within an organization should produce a task conflict with the other department that may be responsible for that task. Moreover, research into organizational dynamics of conflict has shown that common work teams and units develop a conflict culture (DeDreu & Gelfand, 2008) where they develop specific strategies and perceptions of conflict management within the group that is not present outside the group.

Zhu (2013) conducted a comprehensive study looking at the nature of relationships between departments and the moderating role of organizational identification in interdepartmental conflict management. One of the few studies analyzing conflict at an intraorganizational level, Zhu (2013) put heavy focus on goal interdependence theory. This idea of goal interdependence was derived from Deutsch (1973) and describes the belief that the way goals are perceived determines how individuals interact and therefore determines the outcomes. Similar to the study done by Erkutlu and Chafra (2015), the idea of constructive controversy dynamic relates to the idea of employee voice and is posited to also be tightly tied to organizational identification. Zhu (2013) noted that effective collaboration tends to highlight the differences in objectives within conflicting departments and is a pressing challenge for organizations.

The results of the study supported the hypotheses that interdepartmental goal interdependence is a predictor to employees' engagement in constructive controversy and that employee identification moderated engagement with constructive controversy (Zhu, 2013).

14

Further, the study supported a strong positive correlation between cooperative goals and constructive controversy and a strong negative correlation between independent goals and constructive controversy. The relationship between competitive goals and constructive controversy was not shown to be significant, but the other relationships showed significant correlation. Finally, the mediation and moderation proposed was found to be strongly supported underlining the positive role organizational identification under competitive goals has in conflict management.

Zhu (2013) showed that a cooperative relationship is vital for open and constructive conflict discussions between interdepartmental employees. Competitive goal relationships, on the other hand, showed employees being less likely to engage. Zhu suggested that the goals between departments that contribute to productive conflict outcomes are cooperatively developed and that they are beneficial to constructive controversy dynamics. Confirming previous literature on the subject, Zhu suggested that an improvement in collaboration through a strengthening of organizational identification, cooperative goal interdependence, and open-minded conflict management is an effective way to approach interdepartmental effectiveness.

2.7 The Effect of Disposition on Conflict Management and Psychological Safety

Some research has been done to look at how disposition impacts styles of conflict management which is pertinent because disposition can have a direct effect on how an individual approaches many aspects of their interactions. Patel (2016) summarized the connections between disposition and conflict management styles by outlining the five major styles of conflict management as listed in the Rahim Organizational Conflict Inventory-II (ROCI II). As this study

also includes the ROCI II as the main collection point for conflict management style information, the information is highly related.

Patel (2016) posited that the compromising style of conflict management is unique to the other styles as it is specifically characterized by lower levels of concern for the interests of all parties involved. Because of this, the end results of this style tend to not fully satisfy either party in the attempt to get to a solution. Rather, the ideal result of this style is to have both parties make concessions to resolve the conflict.

The accommodating and competing styles of conflict management represent two sides of the same coin. The accommodating style of conflict management tends to be related to a low level of concern for the self while the competing style is much more related to a high level of self-concern (Patel, 2016). Both options can be used effectively to manage conflict. However, when considering psychological safety, either specific positive or negative concern for self could skew the desire to protect or withhold ideas and concepts respectively.

The avoiding style of conflict management is like a very aggressive form of compromising where the concern for self and others' interest is so low that the desire is to withdraw or suppress (Patel, 2016). This style of conflict management can be influenced by psychological safety levels. One could assume the idea of withdrawing or suppressing ideas and emotions could very much come from systematic low psychological safety where the individual is so afraid of the repercussions of speaking up that they no longer associate with the problem.

Finally, the collaborating style is a conflict management style that is reliant on the individual having a high concern for both their personal self-interests and the interests of others (Patel, 2016). People who use this style attempt to solve the conflict while satisfying the wants and

needs of all parties involved. While the benefits of the collaborating style should be clear, it can be negative under the right circumstances.

Patel (2016) argued that much of the literature surrounding disposition and conflict management styles is somewhat contradictory in that there is a plethora of external factors besides disposition that affect conflict management styles. These concepts and relations are not simply independent, they are all present and being acted upon by various outside sources and the complexity involved makes it difficult to truly nail down a perfect model. Figure 2.1 shows a visual representation of how the different styles line up with interests.

High
Concern for Others

Accommodating   Collaborating

Compromising

Low
Concern for Others
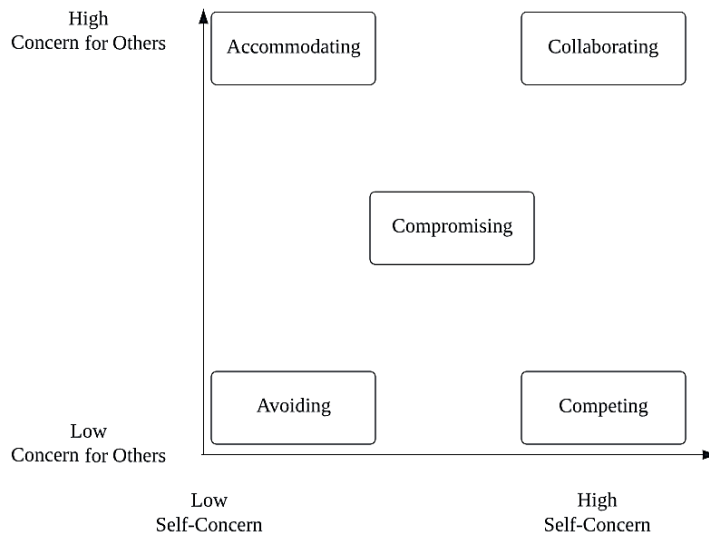Avoiding   Competing

Low
Self-Concern

High
Self-Concern

Figure 2.1

Conflict Management Styles and Disposition

2.8 Research Focus and Hypotheses

Intraorganizational involvement can be viewed similarly to Edmondson et al.'s (2001)

study of surgical teams. Surgical teams are normally made up of people from different departments within an organization, but when working on the same project, the goals, procedures, and identifications may differ. A similar view is a common problem seen in engineering where the project tasks may be split within several different departments within an organization from engineering to sales to fabrication. In situations such as above, task conflicts arise quite often. For instance, the task goal for engineering may be to engineer a piece of equipment to function in a very specific way. However, the sales department may instead be tasked with hitting a target sales number or supplier requirement. The resulting conflict is recognized as a task-specific conflict (Pierce et al., 2007; Sudhakar, 2015) and presents a crossroads for the manager to decide how to approach this conflict.

Situations that involve different departments present their own set of complications and communication hurdles. One of these areas commonly experienced in engineering is a perception of low psychological safety depending on the departmental association of the manager (Zhu, 2013). Arising from various causes outside the scope of this analysis, the resulting perception changes the dynamic of the team, and as shown in Bradley et al.'s (2012) study, a low perception of psychological safety correlates with a reduced benefit.

Studies revealed (Erkutlu & Chafra, 2015; Meyer, 2004; Weider-Hatfield & Hatfield, 1995; Zengetwa, 2020; Zhu, 2013) that approaching task-type conflicts with cooperative forms of conflict management to achieve a positive outcome. From the five standard approaches, as detailed by both Kilmann and Thomas (1975) and Shah and Nowocin (2015), the cooperative forms would include accommodate, collaborate, and compromise with the final choice coming after weighing the conflict-specific attributes. These cooperative styles, however, are best utilized when moderated by a high psychological safety (Zengetwa, 2020; Zhu, 2013).

The data as presented by the preceding studies show a strong relationship between psychological safety and conflict management, especially as related to team engagement. While the specific style of conflict management will directly influence the outcome, conflict management between departments is not studied as deeply as individual conflict. As not every employee has the training to address conflict in a prescribed way, increasing the perception of interdepartmental psychological safety could influence the use of cooperative styles and lead to generally more positive conflict resolutions.

2.8.1 Study Hypotheses

The first hypothesis being tested in this study is that the level of perceived peer-to-peer psychological safety should be lower than the perceived level of interdepartmental psychological safety. While a difference between the two is expected due to the issues listed above, a large disparity between the two may be indicative of communicative isolation or other issues where departments are not integrated. Determining the difference between the two forms of psychological safety is important as it will validate the idea of interdepartmental psychological safety as its own variable and assign a baseline in which to compare the two.

H1$_0$: Employee's perceived level of peer-to-peer psychological safety is not higher than interdepartmental psychological safety.

H1$_a$: Employee's perceived level of peer-to-peer psychological safety is higher than interdepartmental psychological safety.

The second and third hypotheses are related specifically to the effects of high levels of

psychological safety in the work environment. As indicated by the study conducted by Erkutlu and Chafra (2015), a positive relationship between the collaborative styles of conflict management and increased psychological safety is present. Therefore, as the psychological safety levels increase, employees should report a preference to using the compromising, collaborating, and accommodating conflict management styles. Conversely, a low perception of interdepartmental psychological safety could be indicative of negative styles of conflict management.

$H2_0$: Individuals with a high perception of interdepartmental psychological safety will report no preference towards the use of the compromising, collaborating, and accommodating conflict management styles.

$H2_a$: Individuals with a high perception of interdepartmental psychological safety will report a preference to use the compromising, collaborating, and accommodating conflict management styles.

$H3_0$: Individuals with a low perception of interdepartmental psychological safety will report no preference towards the use of the avoiding and competing conflict management styles.

$H3_a$: Individuals with a low perception of interdepartmental psychological safety will report a preference to use the avoiding and competing conflict management styles.

CHAPTER III

METHODOLOGY

In the current study, data were obtained from 87 responses to an online. The study was conducted with the use of an online survey-based tool, Qualtrics, to better facilitate anonymity and distribution. A current test or procedure specifically for calculating either the psychological safety or conflict management styles between departments does not exist. To facilitate this study, tests for both variable levels were adapted from existing methods currently in use for peer-to-peer studies as can be seen in the following sections. The complete survey transcript can be found in Appendix A.

3.1 Target Population

The target population of this study was determined to be anyone with a job requiring interaction with another department. No requirements were set on industry type, size, or position to try and include the largest sample set possible. Prior research studies were focused on the manager-specific role of conflict management. This study includes individual employees as well. Conflict affects all levels of an organization, and this study attempts to capture a saturated demographic of employment levels and experience. A target population of 67 participants was determined as the minimum number required for accurate results when using a normal, bivariate correlation model through the G*Power analysis (Faul et al, 2009).

3.2 Questionnaire Design

The survey was divided up into four different sections: peer-to-peer psychological safety, interdepartmental psychological safety, interdepartmental conflict management styles, and demographic information. Through pilot testing, the survey was determined to take no more than 10-15 minutes to complete and was designed to allow for use on both desktop and mobile applications to reduce potential roadblocks. To facilitate employee safety and anonymity, the survey was created to be 100% anonymous and no individual identifying information was collected or saved at any point of the process.

All the questions, except for the questions related to general demographics, were designed using a standard, 5-point Likert scale. The design of the scale was based around an agreement model where respondents were asked to choose a number 1-5 that best represented how much they either agreed or disagreed with the problem statement with 1 being not at all and 5 being fully agreed. The 5-point scale was chosen to simplify the decision process of the respondents and fit the existing parameters for the questions related to conflict management styles in the Rahim Organizational Conflict Inventory–II (Rahim, 1983).

For the first section of the survey, peer-to-peer psychological safety, the set of questions used was taken directly from Edmondson's (1999) work in team-based psychological safety. These questions were added to set up the benchmark numbers for each individual's perception of psychological safety to be compared with the interdepartmental section to see what difference, if any was there. This section consisted of seven different questions:

1. *If you make a mistake on a project, it is held against you?*

2. *You are able to bring up problems and tough issues.*

3. *People in your department sometimes reject others for being different.*

4. *It is safe to take a risk within your department.*

5. *It is difficult to ask other members in your department for help.*

6. *People in your department deliberately act to undermine your efforts.*

7. *Your unique skills and talents are valued and utilized.*

For the second section of the survey, interdepartmental psychological safety, the exact same questions were used but were altered in a way to relate to interdepartmental psychological safety. This section of the survey will be used as the main input for the psychological safety function of the model. Any difference seen between the interdepartmental and the peer-to-peer number would indicate that the perception of psychological safety is distinct from each other. To better illustrate the differences between the questions, the terminology "outside your department" was written in bold. The seven questions used are listed below:

1. *If you make a mistake, **those outside your department** hold it against you?*

2. *You are able to bring up problems and tough issues with **those outside of your department.***

3. *People **outside your department** sometimes reject others for being different.*

4. *It is safe to take a risk when it involves **another department.***

5. *It is difficult to ask members **outside of your department** for help.*

6. *People **outside your department** deliberately act to undermine your efforts.*

7. *Your unique skills and talents are valued and utilized by others **outside your department**.*

For the third section of the survey, conflict management styles, a modified version of the Rahim Organizational Conflict Inventory-II (Rahim, 1983) was used. This test is widely used in determining how individuals handle conflict and is split into three different tests depending on the relationship being tested. A specific methodology to measure interdepartmental conflict did not

exist so Form C, which is specifically for conflict between peers, was altered in a way to present the statements as related to interdepartmental conflict. For example, if a question stated:

1. *I try to investigate an issue with my peers to find a solution acceptable to us.*

It was altered as such:

1. *I typically try to investigate an issue with those outside my department to find a solution acceptable to us.*

This section was made up of 28 different questions that measure which type of conflict management style the participant is most likely to use. Each style has a certain number of questions related to it and is given an average score made up of the total responses which then indicates the likelihood of each specific style being used. The test is typically set up on a 5-point Likert agreement scale and is segmented into the five major styles of conflict management that have been discussed in this study.

Finally, each participant was given a list of questions with the purpose of documenting specific demographic information related to the study to be used to understand the population being examined. This section was made up of eight questions (nine if the individual was a manager) and asked about age, ethnicity, gender, education, company industry, role within the company, and length of tenure. If the participant was a manager, they were asked how many people they managed.

3.3 Procedure

Potential participants were contacted via email and asked if they would like to participate in this study voluntarily. Email addresses for potential participants were obtained through personal

and professional networking and "cold-calling" prospective companies. A general explanation was provided as to what was being studied and what would be required along with an explanation of anonymity. Furthermore, in instances where just individuals were contacted, a request for further contact with their respective company was added to attempt a larger scale distribution. When an acceptance was given to take the survey, an anonymous link generated by Qualtrics was sent to the participant and they were then given unlimited time to complete the survey. Once completed, the participants were sent a thank you message and then communication was terminated. Prior to distribution, the survey was approved by the University of Tennessee Institutional Review Board (23-005).

3.4 Data Analysis and Survey Validity

All data analysis was conducted using IBM SPSS Statistics V.29 and the data analytic tools found in the Qualtrics application. The survey was first distributed to a group of five individuals to determine the acceptability of the survey format and wording. All respondents responded with positive marks and testing provided acceptable data to calculate the hypotheses. Next, the survey began full distribution.

To test the internal validity and unidimensionality of the questions, Cronbach's Alpha (Tavakol & Dennick, 2010) was determined. Each section was tested separately, and the results were normalized to remove errors due to negative associations. The resulting Table 3.1 shows that the first set of questions regarding psychological safety has a value of $\alpha = .724$ indicating a strong internal reliability.

Table 3.1 Reliability Statistics of General Psychological Safety Questions

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items
.724	.728

Next, the section on interdepartmental psychological safety was tested. As shown in Table 3.2, the test resulted in a value of α = .794. These results indicate a very strong internal reliability.

Table 3.2 Reliability Statistics of Interdepartmental Psychological Safety Questions

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items
.794	.797

Finally, for the section of the survey dealing with conflict management, each specific set of questions used to measure these variables was broken out as shown in the Rahim Organizational Conflict Inventory Test (Rahim, 1986). Table 3.3 shows that the internal validity of these questions was all strong with values between α = .697 and α = .804. Based on these results, and the results from the two types of psychological safety, all survey questions were shown to be internally valid.

Table 3.3 Reliability Statistics of Collaborating Style Questions

Conflict Management Style	Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items
Collaborating	.804	.822
Accommodating	.697	.676
Competing	.768	.757
Avoiding	.802	.800
Compromising	.737	.738

CHAPTER IV

RESULTS AND DISCUSSION

The results of the study are shown in the following sections. For the purposes of reading the graphs and tables, the general, or peer-to-peer psychological safety is indicated as PtP. Likewise, the departmental psychological safety is labeled as Dept. Psychological safety will be indicated by PS.

4.1 Participant Demographics

In total, 87 surveys were distributed to several different companies and individuals all located in the United States. Of the 87 distributed surveys, 68 surveys were fully completed and usable indicating a completion rate of 78.2%. Due to the question design and data collection method, only fully complete surveys could be used.

4.1.1 Participant Gender

One demographic element was identified gender. Figure 4.1 indicates the relative number of males to female participants. Of the usable surveys, 61% of respondents identified as female.
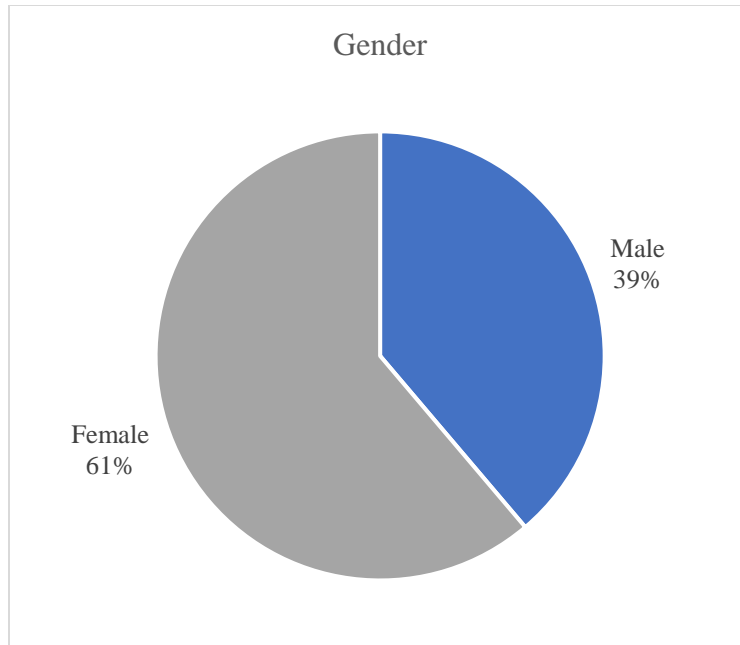
Figure 4.1

Gender Demographic Distribution

4.1.2 Participant Education Level

Almost 90% of the participants in this survey had a college education with over 30% reporting that they had a graduate degree. The results could be indicative of the particular industries that responded as most of them are related to knowledge fields where degrees are required, such as technology and engineering. Figure 4.2 illustrates the distribution of education level.
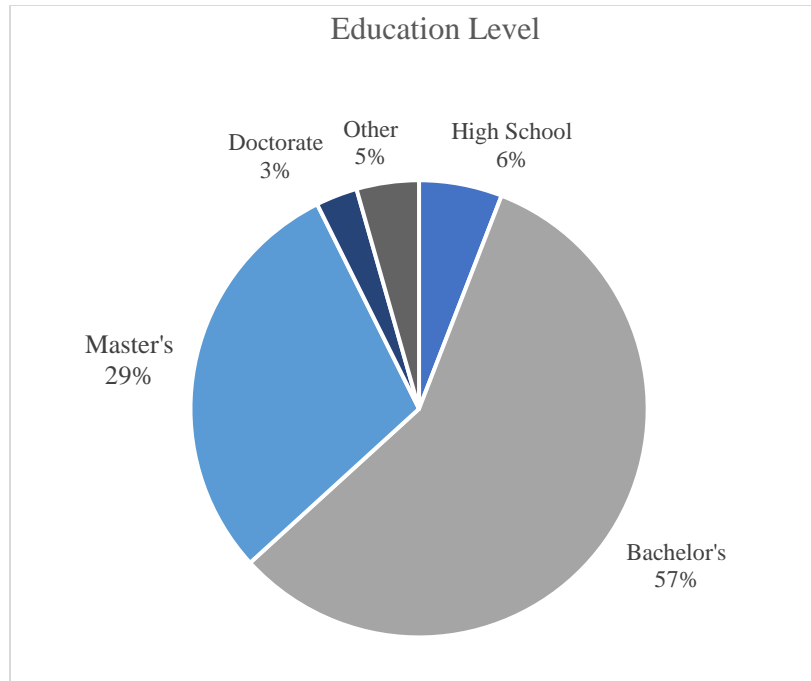
Figure 4.2

Education Level Demographic Distribution

4.1.3 Participant Age

Another demographic element that was identified was participant age. Participants in this study included members of many different generations and were distributed evenly through the expected range of employment (Statista Research Department, 2023). The data indicated that 84% of respondents were between the ages of 25 and 54 as seen in Figure 4.3 indicating that the majority of respondents covered the standard working age of individuals in the workforce.
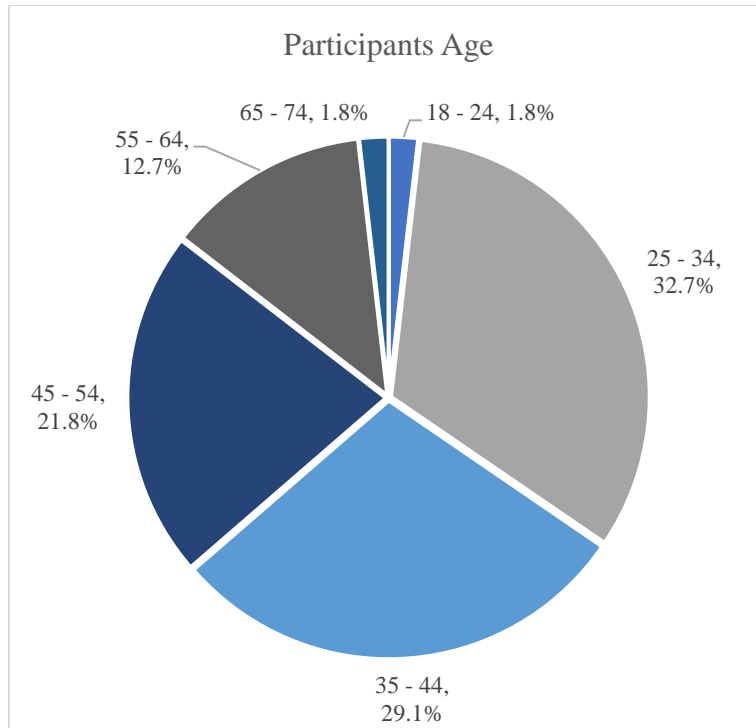
Figure 4.3

Participant Age Demographic Distribution

4.1.4 Participant Organizational Information

To show organizational data for the participants, multiple questions related to their current position and industry were asked. Figure 4.4 illustrates that the primary industry where participants gathered was in Technology/IT with 30 respondents. The second largest pool of respondents was the 17 in the engineering industry with all other industries reporting fewer than five respondents each.
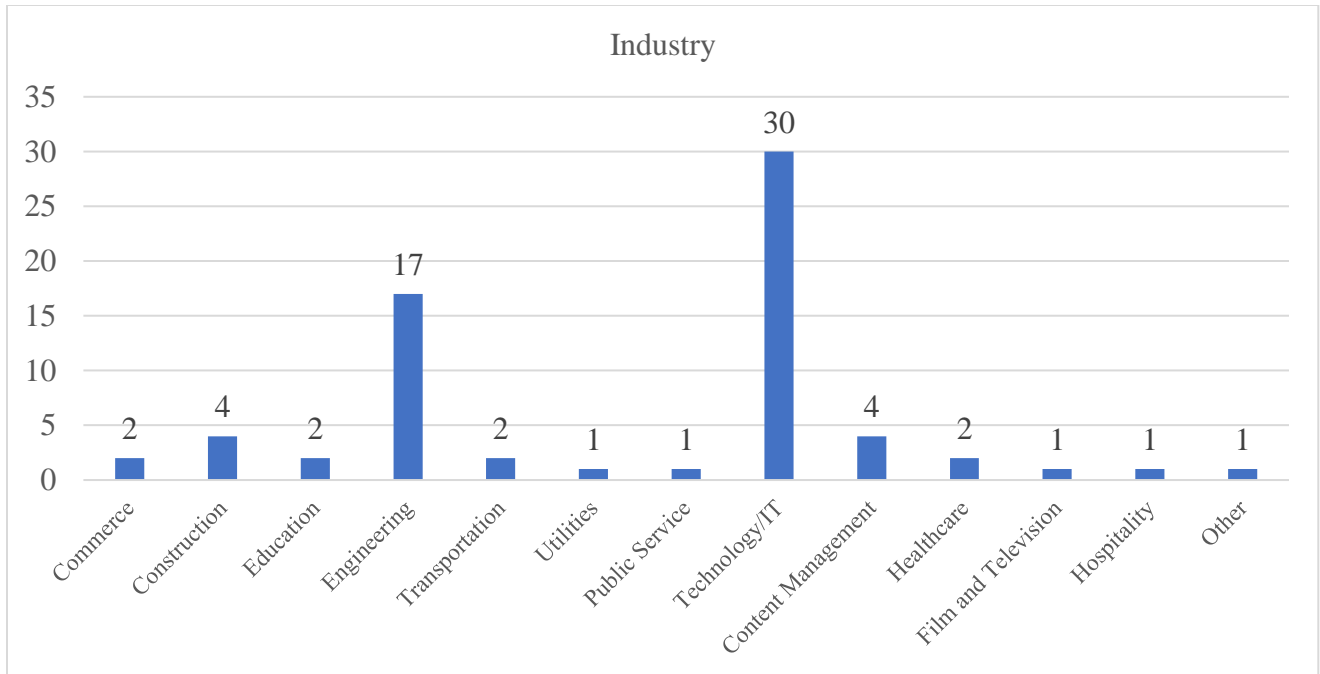
Figure 4.4

Distribution of Participants by Industry Types

Figure 4.5 indicates that within these industries, the primary department was in human resources. For this study, human resources could include anything that is related to customer interaction. Respondents from one of the companies identified in the Technology/IT industry considered their role to be human resources for other companies as their outside IT support. This is highlighted because it is not the traditional human resources department that is generally a multidepartmental role within a single organization.
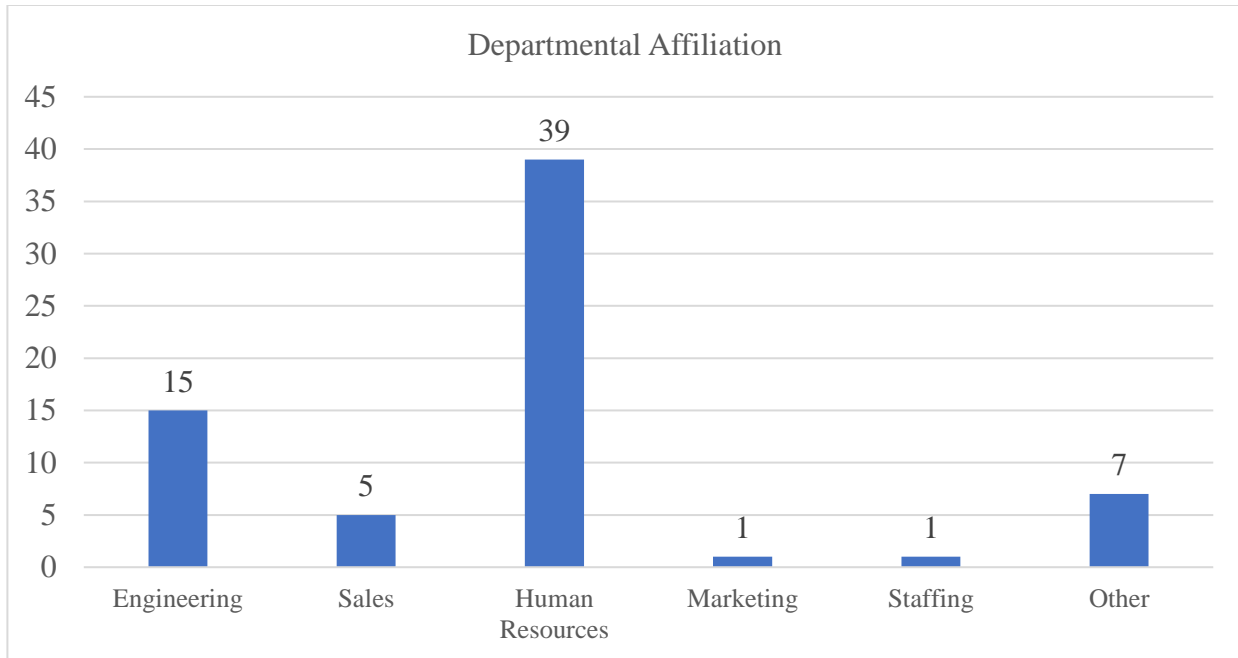
Figure 4.5

Departmental Identification of Participants

Finally, Figures 4.6 and 4.7 indicate that 34% of the participants were managers and that the primary number of reports was 10 or fewer. This is an important metric as many of the studies in the past have focused on the manager aspect alone and many managers have at least some training or formal experience in conflict management. However, as has been illustrated in previous sections, conflict affects all levels of an organization so the ability to remove or add this demographic is important to show if there is a driven effect because of role.
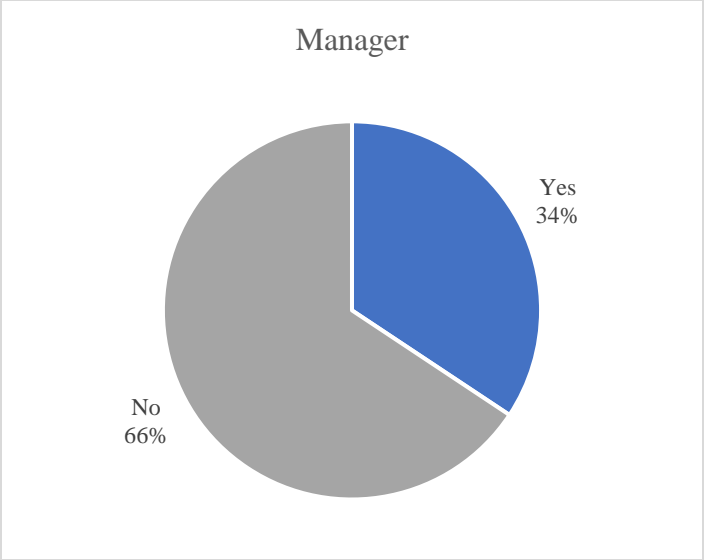
Figure 4.6

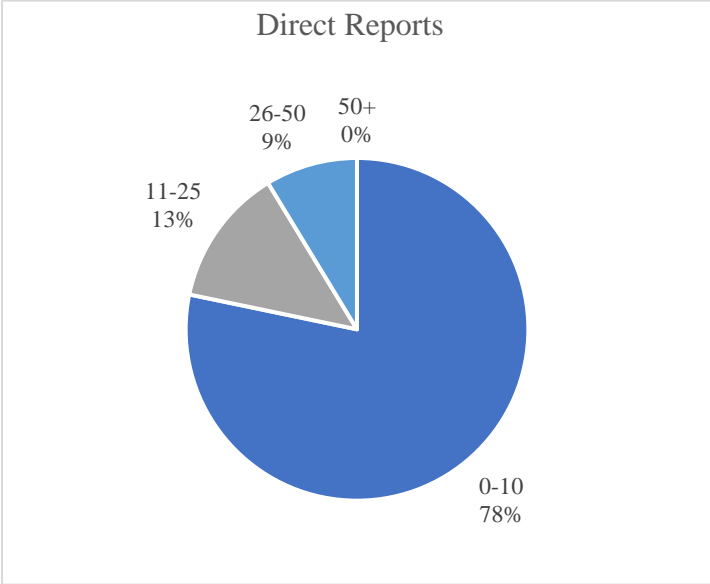Participant Identifying as Manager or Not

Figure 4.7

Number of Direct Reports if Participant Identified as Manager

4.2 Peer-to-Peer Psychological Safety Results

The answers for the peer-to-peer psychological safety section of the survey were tabulated to give a number that represents the level of psychological safety that is present for each participant as it relates to their standard work environment. A score of 3.00 in this histogram should be seen as the midpoint of the Likert scale and indicative of an average level of psychological safety. A number below this would indicate that the participant does not feel psychologically safe and a number above this would indicate that they do. Figure 4.8 shows that, with a mean of 3.39, the average participant reported a high level of perceived psychological safety within their organization. The results are also shown as right skewed indicating a higher propensity for participants to report a higher-than-average level of psychological safety.
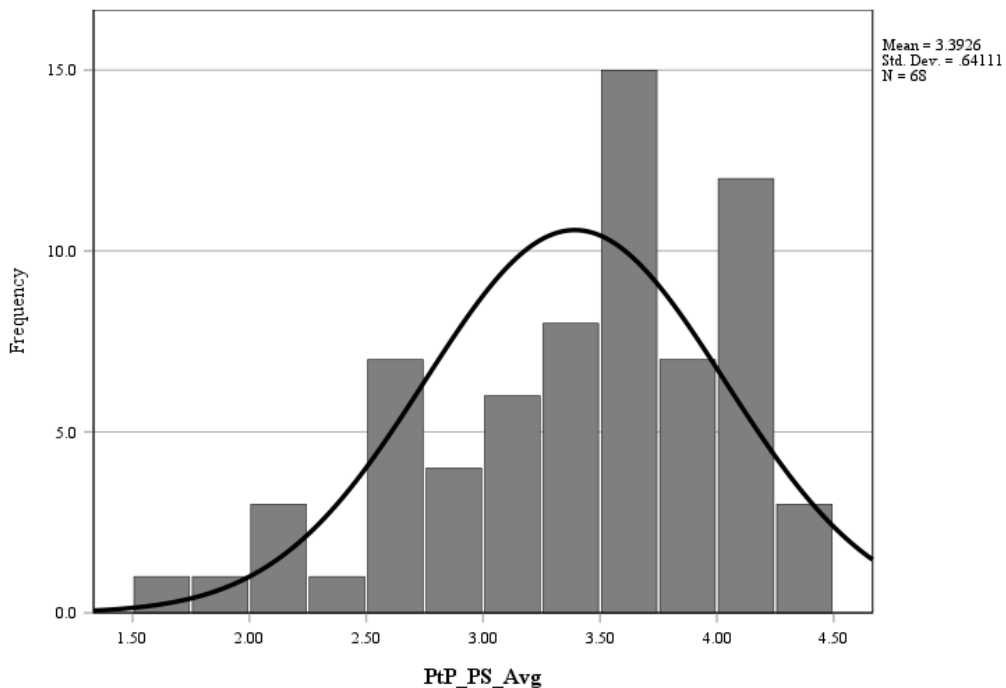

Figure 4.8

Histogram of Participant's Perception Level of General, Peer-to-Peer Psychological Safety

34

4.3 Interdepartmental Psychological Safety Results

Figure 4.9 shows the distribution of participants' perception of their psychological safety environment specifically as it relates to interactions with outside departments of their own. Similar to the preceding results in Section 4.2, a score of 3.00 is indicative of the midpoint. The results indicate a mean of 2.75, so the average participant perceives a slightly negative psychological safety environment amongst outside departments.
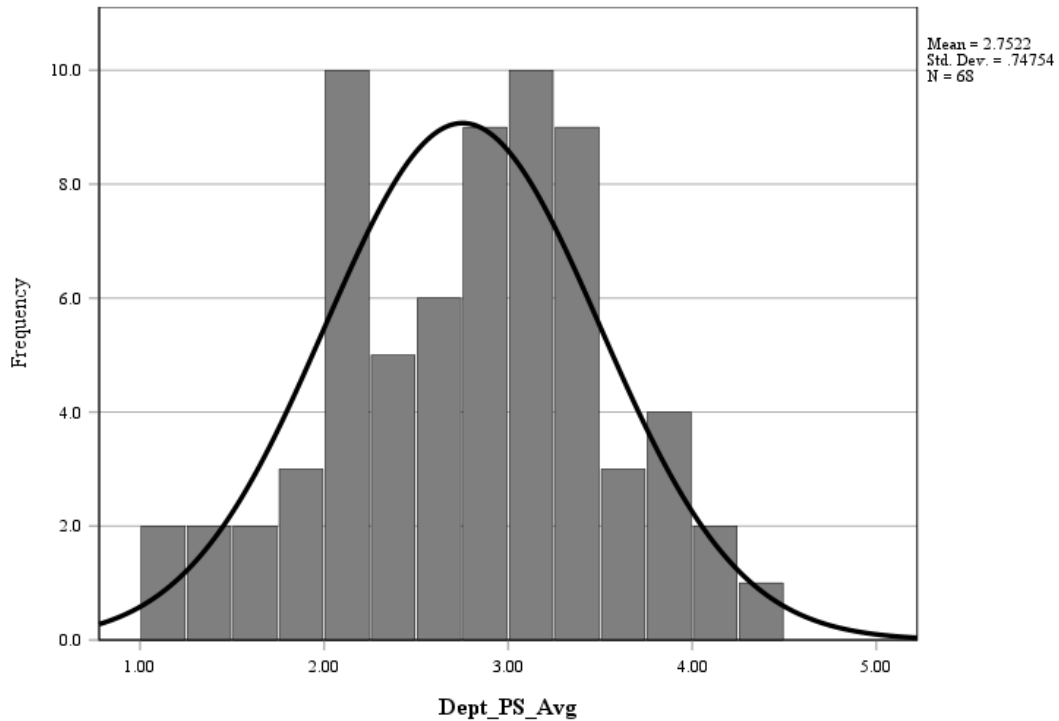

Figure 4.9

Histogram of Participant's Perception Level of Interdepartmental Psychological Safety

4.4 Correlation Between Types of Psychological Safety

The correlation calculated in Table 4.1 between peer-to-peer and interdepartmental psychological safety was calculated using a Pearson correlation test. Figure 4.10 shows the

relationship between standard, peer-to-peer psychological safety and interdepartmental psychological safety. No previous study has revealed the strength or direction of this relationship.

Because many of the contributing factors to standard psychological safety are organizationally based, one could assume that if the environment is indicative of high, peer-to-peer psychological safety, the perception of safety should continue to interdepartmental interactions. Results from the correlation analysis as shown in Table 4.1 indicated a significant effect between both types of psychological safety, ($r(66) = .547$, $p < .05$). Furthermore, a linear regression shown in Table 4.2 revealed an effect of $F(1,66) = 28.137$, $p < .05$, with an r^2 of .299. A visual representation of the results can be seen in Figure 4.10. These results indicate that interdepartmental psychological safety has a strong, positive correlation to peer-to-peer psychological safety. Additionally, peer-to-peer psychological safety can account for about 30% of the variance seen in this model.

Table 4.1 Bivariate Correlation Table of Peer-to-Peer and Interdepartmental
Psychological Safety

Correlations

		PtP_PS_Avg	Dept_PS_Avg
PtP_PS_Avg	Pearson Correlation	1	.547[**]
	N	68	68
Dept_PS_Avg	Pearson Correlation	.547	1
	N	68[**]	68

**. Correlation is significant at the 0.01 level (1-tailed).

Table 4.2   Linear Regression Table between Peer-to-Peer and Interdepartmental
            Psychological Safety

Model Summary

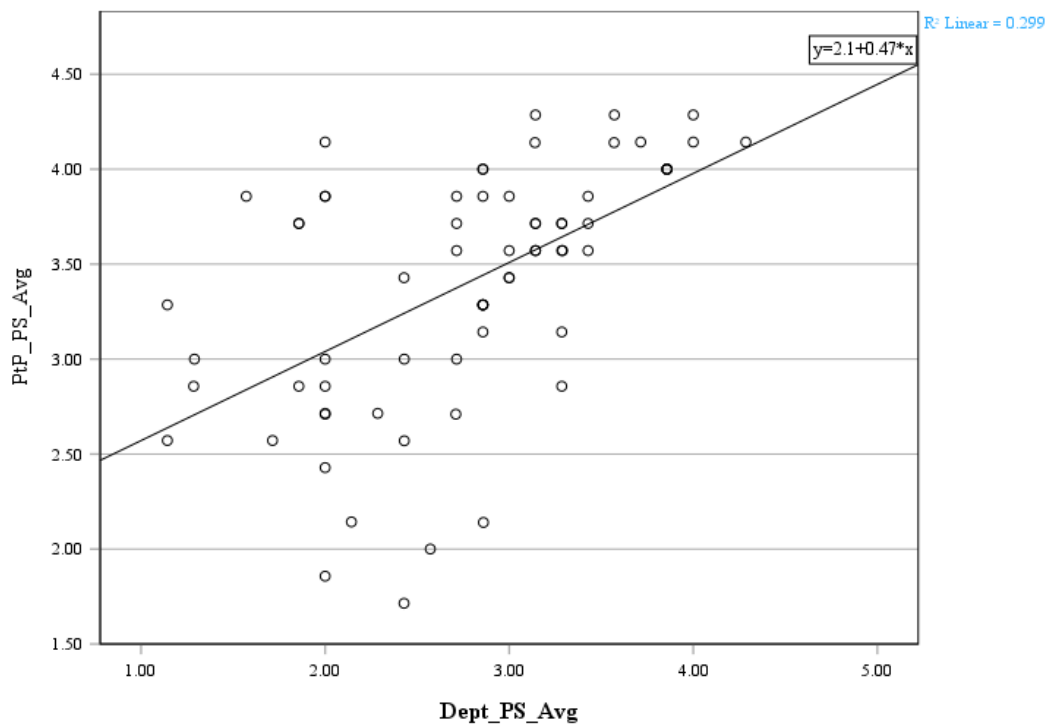| Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	R Square Change	F Change	df1	df2	Sig. F Change
						Change Statistics			
1	.547[a]	.299	.288	.631	.299	28.137	1	66	<.001

a. Predictors: (Constant), PtP_PS_Avg

Figure 4.10

Scatterplot Showing Correlation Between Peer-to-Peer and Interdepartmental Psychological
Safety

4.5 Conflict Management Styles Results

The final section of the questionnaire was focused on the five styles of conflict management and their relation to the perceived levels of interdepartmental psychological safety. Table 4.3 shows the bivariate correlation table between each of the five styles and interdepartmental psychological safety. Based on these results, three of the five styles show significant effects: collaboration ($r(66) = .215$, $p < 0.05$), avoiding ($r(66) = -.370$, $p < 0.05$), and compromising ($r(66) = .448$, $p < 0.05$). Figures 4.11 through 4.13 show a visual representation of these correlations through scatterplots and their corresponding equations.

Table 4.3   Bivariate Correlation Table of Specific Conflict Management Styles and
Interdepartmental Psychological Safety

Correlations

		Dept_PS_Avg	Collaborating	Accommodating	Competing	Avoiding	Compromising
Dept_PS_Avg	Pearson Correlation	1	$-^*$	-	-	$-^{**}$	$-^{**}$
	N	68	-	-	-	-	-
Collaborating	Pearson Correlation	.215*	1	-	-	$-^*$	$-^{**}$
	N	68	68	-	-	-	-
Accommodating	Pearson Correlation	-.107	.000	1	-	$-^*$	-
	N	68	68	68	-	-	-
Competing	Pearson Correlation	-.121	-.076	-.106	1	-	-
	N	68	68	68	68	-	-
Avoiding	Pearson Correlation	-.370**	-.233*	.262*	-.049	1	$-^*$
	N	68	68	68	68	68	-
Compromising	Pearson Correlation	.448**	.529**	-.120	-.163	-.262*	1
	N	68	68	68	68	68	68

*. Correlation is significant at the 0.05 level (1-tailed).
**. Correlation is significant at the 0.01 level (1-tailed).

The collaboration conflict management style was shown to be significantly correlated to interdepartmental psychological safety with a moderate correlation coefficient of $r(66) = .215$, $p < .05$. Furthermore, results of the linear regression analysis shown in Table 4.4 show a low fit of

$r^2 = .046, p < .05$. These results reveal that even though moderate, positive correlation between the perception of interdepartmental psychological safety and the collaborating conflict management style exists, interdepartmental psychological safety is only able to predict around 5% of the variance in choosing the collaborating style. The data appears to be heteroscedastic which may be influencing the fit of the model indicating that more influencers to the conflict management style likely exist.

Table 4.4   Linear Regression Table between Interdepartmental Psychological Safety and the Collaborating Conflict Management Style

Model Summary

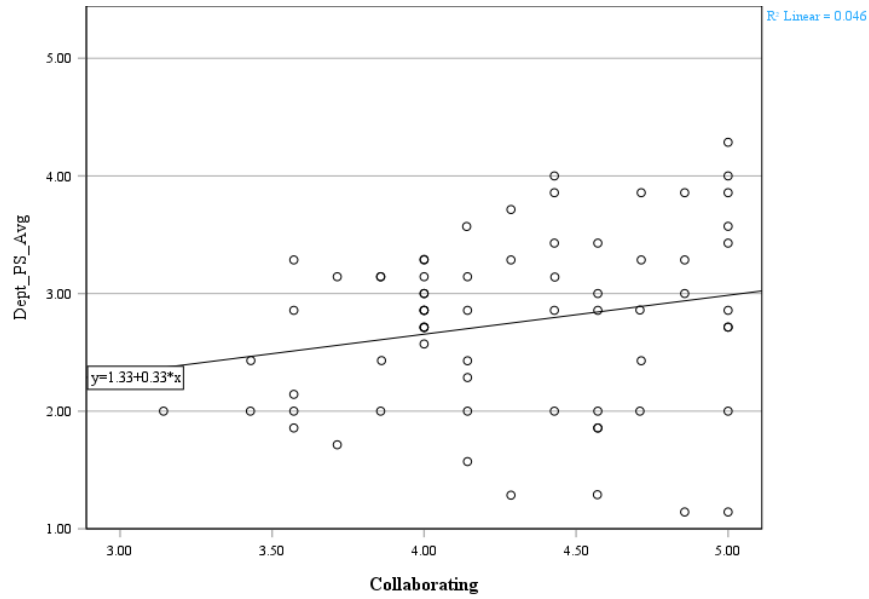| Mode l	R	R Square	Adjusted R Square	Std. Error of the Estimate	R Square Change	F Change	df1	df2	Sig. F Change
						Change Statistics			
1	.215ᵃ	.046	.032	.478	.046	3.205	1	66	.078

a. Predictors: (Constant), Dept_PS_Avg

Figure 4.11

Scatterplot Showing Correlation Between Interdepartmental Psychological Safety and the
Collaborating Style of Conflict Management

The avoiding conflict management style was shown to be significantly correlated to interdepartmental psychological safety with a strong, negative correlation of $r(66) = -.370$, $p < .05$. Results of the linear regression analysis shown in Table 4.5 show a fit of $r^2 = .137$, $p < .05$. These results imply that the avoiding style is strongly correlated with interdepartmental psychological safety and that the level of interdepartmental psychological safety can account for about 14% of the variance in choosing the avoiding style.

Table 4.5   Linear Regression Table between Interdepartmental Psychological Safety and the
             Avoiding Conflict Management Style

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	.370ᵃ	.137	.124	.720	.137	10.465	1	66	.002

a. Predictors: (Constant), Dept_PS_Avg
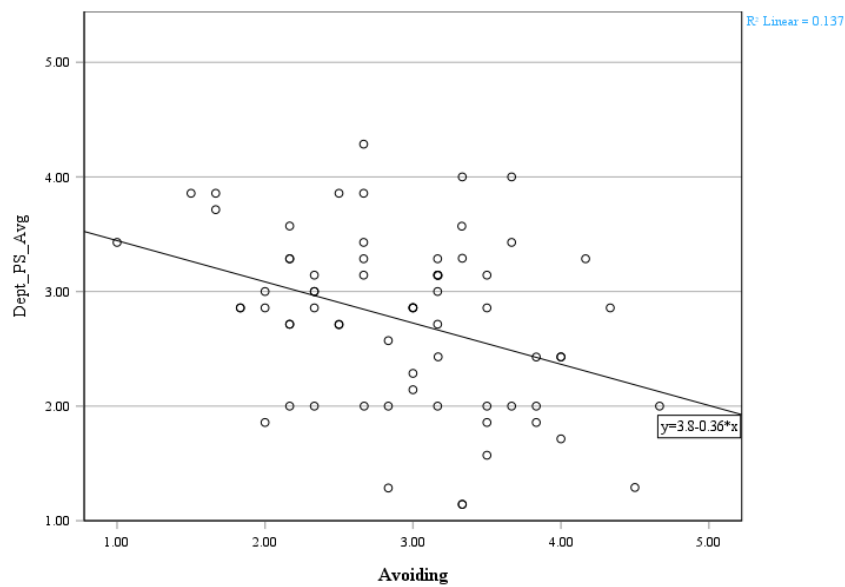
Figure 4.12

Scatterplot Showing Correlation Between Interdepartmental Psychological Safety and the
Avoiding Style of Conflict Management

The final style that showed a significant correlation to interdepartmental psychological safety was the compromising style of conflict management. The results of the correlation analysis indicated that interdepartmental psychological safety and the compromising style had a strong, positive correlation ($r(66) = .448$, $p < .05$). Furthermore, the results of the linear regression analysis shown in Table 4.6 indicated a fit of $r^2 = .200$, $p < .05$. These results indicate that the

compromising style has a strong, positive correlation with interdepartmental psychological safety and that interdepartmental psychological safety can account for 20% of the variance in choosing the compromising style.

Table 4.6   Linear Regression Table between Interdepartmental Psychological Safety and the Compromising Conflict Management Style

Model Summary

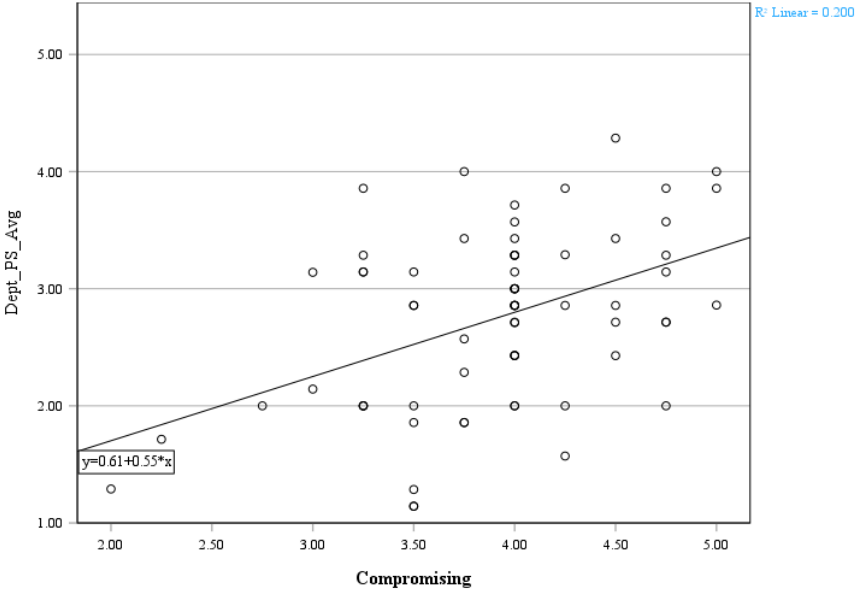| Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	R Square Change	F Change	df1	df2	Sig. F Change
1	.448ᵃ	.200	.188	.550	.200	16.535	1	66	<.001

a. Predictors: (Constant), Dept_PS_Avg

Figure 4.13

Scatterplot Showing Correlation Between Interdepartmental Psychological Safety and the Compromising Style of Conflict Management

The remaining conflict management styles to be analyzed were the competing and accommodating styles. Neither the competing nor the accommodating styles of conflict management showed a significant correlation at the 0.05 level with interdepartmental psychological safety. Therefore, no further analysis was conducted to measure fit or correlation.

4.6 Discussion

The following section will discuss the results found in the previous section. Each subsection breaks down the individual hypotheses that were illustrated in Chapter II. Figure 4.14 visually represents the results of the study and should be used in conjunction with the following hypothesis breakdowns.
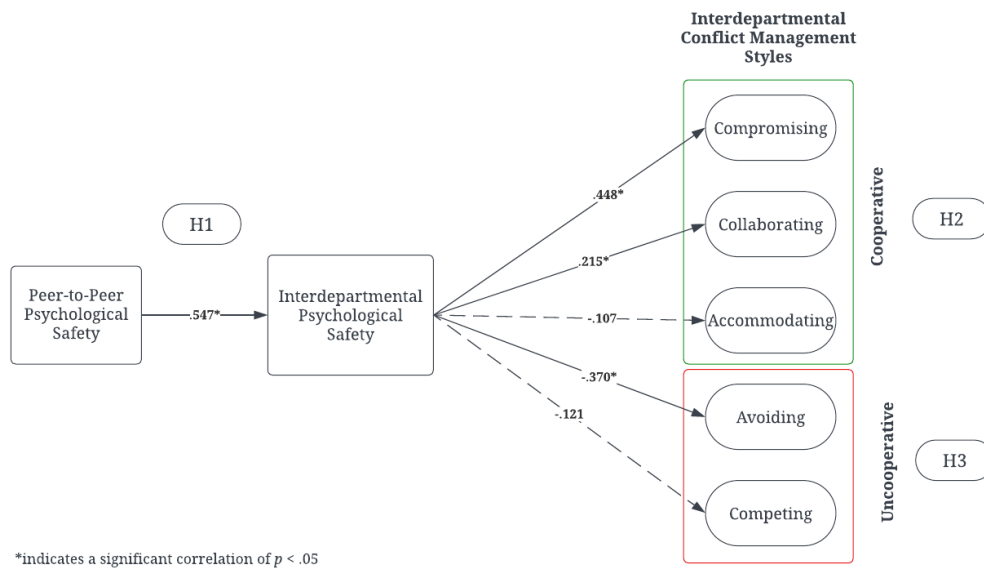

Figure 4.14

Visualization of Correlation Results

4.6.1 Hypothesis 1

H1$_0$: Employee's perceived level of peer-to-peer psychological safety is not higher than interdepartmental psychological safety.

H1$_a$: Employee's perceived level of peer-to-peer psychological safety is higher than interdepartmental psychological safety.

To accept the alternate hypothesis (H1$_0$), a negative shift should be seen in the reported psychological safety levels from peer-to-peer psychological safety to interdepartmental psychological safety. The results from Figures 4.8 and 4.9 illustrate a meaningful change in perception with a mean change of -0.640 validating the alternate hypothesis and rejecting the null. The shift illustrates that employees generally feel more psychologically safe with their peer group than they do with their interdepartmental colleagues.

Furthermore, a positive correlation between the perception of both peer-to-peer psychological safety and interdepartmental psychological safety would be expected. In effect, the higher the perception of general psychological safety, the higher the interdepartmental psychological safety should be. The results shown in Table 4.1 indicate this precisely with a correlation of $r(66) = .547, p < .05$. As a predictive model, 30% of the variance between peer-to-peer and interdepartmental psychological safety can be explained.

Given the data from this study, the null hypothesis can be rejected, and the alternative hypothesis can be accepted. The data shows that as the perceived level of peer-to-peer psychological safety increases, the level of psychological safety perceived amongst different

departments will rise as well. Furthermore, the idea that the two forms of psychological safety are different has been validated and the correlation between the two has been shown.

4.6.2 Hypothesis 2

H2$_0$: Individuals with a high perception of interdepartmental psychological safety will report no preference towards the use of the compromising, collaborating, and accommodating conflict management styles.

H2$_a$: Individuals with a high perception of interdepartmental psychological safety will report a preference to use the compromising, collaborating, and accommodating conflict management styles.

The second hypothesis used in this study was related directly to the interplay between the cooperative styles of conflict management and the perceived levels of psychological safety. To reject the null hypothesis, each style must show a significant, positive correlation to the perceived level of interdepartmental psychological safety. In the case that only some of the styles show correlation, the alternative hypothesis will be accepted specifically for the ones that do.

The results of Pearson's correlation analysis of the cooperative styles as seen in Table 4.3 indicated that a significant correlation was present for both the collaborating and compromising styles of conflict management. The compromising style yielded a strong, positive correlation (r(66) = .448, $p < 0.05$) and a moderate model fit (r^2 = .200, $p < .05$). The collaborating style yielded a moderate, positive correlation (r(66) = .215, $p < 0.05$) but a weak model fit (R^2 = .046, F(1,66) = 3.205, $p < .05$). The accommodating style of conflict management did not show any significant correlation to interdepartmental psychological safety.

The accommodating style of conflict management was shown to be one of the lower frequency styles by Sudhakar (2015). However, individuals who typically use this style tend to "put people's needs before their own interests" (Gross & Guerrero, 2000) which, in some ways, is against the ideas of psychological safety as it can lead to a dominating relationship between parties. If this test were reversed, the perceived styles of conflict management acted upon by participants would be expected to reveal a negative correlation with psychological safety.

Compromising and collaborating styles, unlike accommodating, tend to align with the underlying values of psychological safety a little better. The compromising style reflects a removal of self-interest and best benefits both parties while collaborating is highly dependent on communication and relationship having a positive relationship. While accommodating is seen as a cooperative style of conflict management, due to its apparent nature, it is not affected by interdepartmental psychological safety while both compromising and collaborating are shown to have a moderate, positive impact.

The results indicate that a higher level of perceived interdepartmental psychological safety is positively related to a higher predilection towards both the compromising and collaborating styles of conflict management. Given the results, the null hypothesis can be rejected for these two styles and the alternative hypothesis can be accepted. However, the accommodating style of conflict management was not shown to have a significant correlation, so the null hypothesis must be accepted for that style.

4.6.3 Hypothesis 3

H3$_0$: Individuals with a low perception of interdepartmental psychological safety will report no preference towards the use of the avoiding and competing conflict management styles.

46

H3$_a$: Individuals with a low perception of interdepartmental psychological safety will report a preference to use the avoiding and competing conflict management styles.

The third hypothesis used in this study was testing the impact of the perceived level of interdepartmental psychological safety on the non-cooperative styles of conflict management. Inverse to the second hypothesis, it is expected that a higher level of perceived interdepartmental psychological safety would decrease the affinity towards the competing and avoiding conflict management styles. To accept the alternative hypothesis, each style must show a significant, negative correlation to the perceived level of interdepartmental psychological safety.

The data revealed that the avoiding style of conflict management was significantly negatively correlated to interdepartmental psychological safety (r(66) = -.370, *p* < .05). The model suggested in the research showed a moderate fit (r^2 = .137, *p* < .05) indicating that interdepartmental psychological safety can account for 14% of the variance in the avoiding style. The results comport with the expectations as the avoiding style tends to be related to the withdrawal of oneself from the issue. Where the perception of psychological safety is low, an employee would want to remove themselves from the potential of derisive comments or actions regardless of if they have the answer. However, there are some situations where the avoiding style is preferred and effective. (Hocker & Wilmont, 2014).

The competing style, on the other hand, was shown to not have a significant correlation to interdepartmental psychological safety. Very similar to the accommodating style of conflict management, competing is typically related to a dominating relationship. Likewise, if the test were to be flipped around as before, this style would be expected to be more correlated than shown in

this test. As both styles are mirror options of the other as shown in Section 2.7 (Patel, 2016), this follows with expectations.

The results from the test indicate that the null hypothesis should be rejected for the accommodating style of conflict management. The competing style, however, must maintain the null hypothesis as it was not shown to be significant. Because the results are split in relation to the hypothesis, each style must be treated separately.

4.6.4 Implications to Industrial Practice

The results of this study indicate that by increasing psychological safety, both peer-to-peer and interdepartmental, cooperative styles of conflict management should be preferred by employees. While the conflict itself should dictate which style of conflict management is implemented, not every employee will have had training with which to make an informed decision. By increasing the preference towards cooperative styles by increasing psychological safety, there may be a subconscious increase in a desire to cooperate with those outside of their department, and as determined in the literature review, using cooperative styles of conflict management is tied to more beneficial outcomes in task conflict (Meyer, 2004; Sudhakar, 2015; Weider-Hatfield & Hatfield, 1996)

CHAPTER V

CONCLUSION, LIMITATIONS, AND FURTHER STUDY

5.1 Study Limitations and Recommendations for Further Research

One of the primary limitations of this study is the lack of existing material tailor-made for this type of analysis. The basis for this study was derived from multiple different studies examined in the literature review of this paper. Furthermore, as an existing body of knowledge dedicated to this topic does not exist, the methods and tests used were the result of manipulations of existing ones. While the questions being asked maintained an internal consistency, further research and specialized methods should be developed to tackle the specific intricacies brought on by the interdepartmental aspects of this study.

Another limitation of this study is that there is not a baseline to compare different industries or departments against and each response is an individual, isolated answer. Without being able to stratify the data it is difficult to see trends in psychological safety based on company-specific departments, levels, etc. A good avenue for future research would be to analyze these questions over a specific company, industry, or demographic group to better identify the effect interdepartmental psychological safety has on conflict management and other organizational questions.

As the current study is specifically addressing how individuals would respond to conflict themselves, it may be the case that they would not be willing to admit to perceived negative types of conflict management like avoiding or competing. Future research should look at how parties

perceive the styles of those they work with and see if the correlations change or if the frequency is affected. Furthermore, as organizations continue to develop and their employees work remotely or across borders, further research should be conducted to determine how this split of communication affects both psychological safety and conflict management. The tests should apply to both regular and interdepartmental psychological safety as there is a current lack of studies specifically looking at the issue from both sides.

Finally, even though the results indicated that interdepartmental psychological safety was significantly correlated to peer-to-peer psychological safety, the measure of interdepartmental psychological safety may not be necessary for understanding the behavior in this sense. The values of both are correlatedly linked and it may be indicative that general psychological safety is good enough for the general measure. Further research into the differences and scales is suggested to better understand this relationship and its effects on interdepartmental issues.

5.2 Conclusion

This study was created as an exploration into the areas of interdepartmental psychological safety and conflict management that have not yet been delved into. Nevertheless, the findings of this study should be evaluated as the starting point for future research. Studies have shown that both the areas of study of psychological safety and conflict management are critical in personal, team, and organizational performance and have an impact on many different aspects within each.

The purpose of this study was two-fold. The first objective was to determine if a link between peer-to-peer and interdepartmental psychological safety existed. Secondly, the objective was to establish if the perception of interdepartmental psychological safety was a significant variable in how employees addressed conflict. According to the results, interdepartmental

psychological safety has a strong, positive correlation with peer-to-peer psychological safety, indicating that the two are linked. Furthermore, the results for the correlation between interdepartmental psychological safety and conflict management styles reveal that an environment where there is a higher perception of interdepartmental psychological safety will be positively correlated to the collaborating and compromising style of conflict management. Conversely, the results reveal that the avoiding style is negatively correlated with high interdepartmental psychological safety. No correlation was determined for the competing or accommodating style.

As was identified in the literature review, implementing cooperative styles of conflict management has been shown to be positively correlated with organizational improvement in task-based conflict. While each conflict is its own case and should be treated as such, the results of this study show that increasing psychological safety, be it peer-to-peer or interdepartmental, should have a positive effect on increasing the preference towards collaborating and compromising styles and decreasing the avoiding style. Furthermore, by increasing the preference for these cooperative styles, more positive results could be seen by the organization related to interdepartmental conflict.

Previous studies have shown that increasing psychological safety has a positive effect on many different aspects of an organization. Likewise, how an individual manages conflict has a major sway on the overall effect of said conflict, influencing the results to be negative or positive. As companies continue to evolve and become more diverse, interdepartmental communication and conflict can be expected to increase. Continued research of interdepartmental dynamics is necessary to better understand the causes and effects brought on by this expansion to create more successful, better integrated companies for the future.

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APPENDIX A

SURVEY TRANSCRIPT

The Mediating Role of Psychological Safety on Interdepartmental Conflict Management Systems

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The Mediating Role of Psychological Safety on Interdepartmental Conflict Management Systems
 Why We Are Conducting the Research The purpose of this survey is to look at how psychological safety (the belief that you won't be punished or ostracized for speaking up with ideas, questions, concerns, or mistakes) affects how individuals and managers address conflict across departments. We hope that the results of this survey will help further increase the body of knowledge surrounding both psychological safety and conflict management and, in turn, help both employees and managers find more constructive ways to deal with conflict in the workplace.

 Who Can Participate? This survey is open to all individuals who are currently employed at a company with multiple departments (sales, HR, engineering, manufacturing, etc.) and have some form of communication/interaction with said departments. Individuals must be at least 18 years of age to participate in this research.

 What You Will Be Asked to Do In this survey, you will be presented with several banks of questions split into 4 sections: General Psychological Safety, Departmental Psychological Safety, Conflict Management Styles, and Demographics. The questions surrounding psychological safety and conflict management are all set up on a 5-point Likert scale based on how much you agree with the statements presented. Once completed, the final section consists of multiple-choice questions designed to collect general demographic information to help generalize the responses. Once all questions are completed, the survey will be submitted, and your answers recorded.

 Time Required We estimate it will take between 10-20 min for you to complete the research activities.

 How Will My Information Be Protected? Your identity will be kept confidential to the extent provided by law. The survey is distributed through a secure link and will only record the answers to the questions posed. No personal identifying information will be kept. All information from these surveys will be stored on a password-protected computer and all responses will be generalized so that neither company nor individual shall be discernible.

 What If I Decide Not to Participate? Your participation in this study is completely voluntary. You have the right to withdraw from the study at any time. If you decide not to participate or withdraw after the study has started, we will discard any information we have already collected from you.

What if I Have Questions? If you have questions about the research study or any of the information above, you can contact:

Ryan Limpus (Primary Researcher)
Smh385@mocs.utc.edu

SeongDae Kim (Academic Advisor)
seongdae-kim@utc.edu

If you have any questions about your rights as a subject/participant in this research, or if you feel you have been placed at risk, you can contact Dr. Susan Davidson, the Chair of the Human Subjects Committee, Institutional Review Board at 423-425-1387. Additional contact information is available at www.utc.edu/irb

This research protocol has been approved by the UTC Institutional Review Board (#23-005). Additional contact information is available at www.utc.edu/irb.

○ *I have considered all of the above information and have had an opportunity to ask questions*

about anything that is not clear to me. I am at least 18 years of age, and I choose to participate in

this study. (1)

General Psychological Safety

Please choose the appropriate answer depending on how much agree with the proposed statement.

The statements below relate directly to your direct peers, supervisors, or employees.

1 - Do not agree at all and 5 - Completely agree	1 (Do not agree at all) (1)	2 (2)	3 (Neither agree nor disagree) (3)	4 (4)	5 (Completely agree) (5)
If you make a mistake on a project, it is held against you. (1)	○	○	○	○	○
You are able to bring up problems and tough issues. (2)	○	○	○	○	○
People in your department sometimes reject others for being different. (3)	○	○	○	○	○
It is safe to take a risk within your department (4)	○	○	○	○	○
It is difficult to ask other members in your department for help. (5)	○	○	○	○	○
People in your department deliberately act to undermine your efforts. (6)	○	○	○	○	○
Your unique skills and talents are valued and utilized. (7)	○	○	○	○	○

Departmental Psychological Safety

Please choose the appropriate answer depending on how much you agree with the proposed statement.

The statements below relate to your interactions with those in other departments separate from yours as a whole. I.e. Engineering working with Manufacturing or Sales working with Human Resources.

1 - Do not agree at all and 5 - Completely agree	1 (Do not agree at all) (1)	2 (2)	3 (Neither agree nor disagree) (3)	4 (4)	5 (Completely agree) (5)
If you make a mistake, those **outside your department** hold it against you. (1)	○	○	○	○	○
You are able to bring up problems and tough issues with those **outside of your department.** (2)	○	○	○	○	○
People **outside your department** sometimes reject others for being different. (3)	○	○	○	○	○
It is safe to take a risk when it involves **another department**. (4)	○	○	○	○	○
It is difficult to ask members **outside your department** for help. (5)	○	○	○	○	○
People **outside your department** deliberately act to undermine your efforts. (6)	○	○	○	○	○

Your unique skills and talents are valued and utilized by others **outside your department**. (7)	○	○	○	○	○

Conflict Management

 Please choose the appropriate answer depending on how much you agree with the proposed statement about conflict.

 Conflict refers to any difference of opinion or hostility between two parties. This can refer to both personal conflict and functional conflict. Some examples of personal conflict can include: Disagreements outside of the workplace, friction with different personalities, differences in beliefs, etc. Some examples of functional conflict include: Unable to use a certain material or process, disagreements on budget allocation, disagreements on the effectiveness of a certain work style, etc.

 For the purpose of this survey, your department specifically relates to those who work in the same part of the company as you (ie: Engineering, Sales, Fabrication, etc.)

1 - Do not agree at all and 5 - Completely agree	1 (Do not agree at all) (1)	2 (2)	3 (Neither agree nor disagree) (3)	4 (4)	5 (Completely agree) (5)
I typically try to investigate an issue with those outside my department to find a solution acceptable to us (4)	○	○	○	○	○
I generally try to satisfy the needs of those outside my department (14)	○	○	○	○	○
I attempt to avoid being "put on the spot" and try to keep my conflict with those outside my department to myself. (15)	○	○	○	○	○
I try to integrate my ideas with those of others outside my department to come up with a decision jointly. (16)	○	○	○	○	○
I try to work with those outside my department to find a solution to a problem that satisfies our expectations. (5)	○	○	○	○	○
I usually avoid open discussion of my differences with those outside my department. (17)	○	○	○	○	○

	1 (Do not agree at all) (1)	2 (2)	3 (Neither agree nor disagree) (3)	4 (4)	5 (Completely agree) (5)
I try to find a middle course to resolve an impasse. (19)	○	○	○	○	○
1 - Do not agree at all and 5 - Completely agree	1 (Do not agree at all) (1)	2 (2)	3 (Neither agree nor disagree) (3)	4 (4)	5 (Completely agree) (5)
I use my influence to get my ideas accepted. (4)	○	○	○	○	○
I use my authority to make a decision in my favor. (14)	○	○	○	○	○
I usually accommodate the wishes of those outside my department. (15)	○	○	○	○	○
I give in to the wishes of those outside my department. (16)	○	○	○	○	○
I exchange accurate information with people outside my department to solve a problem together. (5)	○	○	○	○	○
I usually allow concessions to those outside my department. (17)	○	○	○	○	○

I usually propose a middle ground for breaking deadlocks. (19)	○	○	○	○	○

1 - Do not agree at all and 5 - Completely agree	1 (Do not agree at all) (1)	2 (2)	3 (Neither agree nor disagree) (3)	4 (4)	5 (Completely agree) (5)
I negotiate with those outside my department so that a compromise can be reached. (4)	○	○	○	○	○
I try to stay away from disagreement with people outside my department. (14)	○	○	○	○	○
I avoid an encounter with those outside my department. (15)	○	○	○	○	○
I use my expertise to make a decision in my favor. (16)	○	○	○	○	○
I often go along with the suggestions of those outside my department. (21)	○	○	○	○	○
I use "give and take" so that a compromise can be made. (17)	○	○	○	○	○
I am generally firm in pursuing my side of the issue. (19)	○	○	○	○	○

1 - Do not agree at all and 5 - Completely agree	1 (Do not agree at all) (1)	2 (2)	3 (Neither agree nor disagree) (3)	4 (4)	5 (Completely agree) (5)
I try to bring all our concerns out in the open so that the issues can be resolved in the best way possible. (4)	○	○	○	○	○
I collaborate with those outside my department to come up with decisions acceptable to us. (14)	○	○	○	○	○
I try to satisfy the expectations of people outside my department. (15)	○	○	○	○	○
I sometimes use my power to win a competitive situation. (16)	○	○	○	○	○
I try to keep my disagreement with those outside my department to myself in order to avoid having hard feelings. (21)	○	○	○	○	○
I try to avoid unpleasant exchanges with people outside my department. (17)	○	○	○	○	○

I try to work with people outside my department for a proper understanding of a problem. (19)	○	○	○	○	○

Demographics

Please answer the following demographic questions as accurately as possible.

Q53 What is your age?

- ○ Under 18 (1)
- ○ 18 - 24 (2)
- ○ 25 - 34 (3)
- ○ 35 - 44 (4)
- ○ 45 - 54 (5)
- ○ 55 - 64 (6)
- ○ 65 - 74 (7)
- ○ 75 or older (8)

Q54 What is your gender?

- ○ Male (1)
- ○ Female (2)
- ○ Intersex (3)
- ○ Not Listed: (4) _____
- ○ Prefer not to say (5)

Q62 What is your ethnicity?

○ White (1)

○ Hispanic or Latino (2)

○ Black or African American (3)

○ American Indian or Alaska Native (4)

○ Asian (5)

○ Native Hawaiian or Pacific Islander (6)

○ Other (7)

Q59 What is your current education level?

○ Less than a high school diploma (1)

○ High school diploma or equivalent (2)

○ Bachelor's Degree (BA, BS, etc.) (3)

○ Master's Degree (MS, MA, etc.) (4)

○ Doctorate (PhD, Ed.D, etc.) (5)

○ Other (please specify) (6) _____

Q55 How long have you worked for this company?

○ 0-2 years (1)

○ 3-5 years (2)

○ 6-8 years (3)

○ 9 years or longer (4)

Q56 Which department most closely describes your primary role?

○ Engineering (1)

○ Sales (2)

○ Marketing (3)

○ Manufacturing (4)

○ Human Resources (5)

○ Finance (6)

○ Staffing (7)

○ Maintenance (8)

○ IT (9)

○ Other (please specify) (10) _____

Q65 Which option best describes what industry your company is in?

○ Agriculture (1)

○ Commerce (2)

○ Construction (3)

○ Education (4)

○ Engineering (5)

○ Financial services (6)

○ Food and Drink (7)

○ Fabrication (8)

○ Government (9)

○ Public Service (10)

○ Transportation (11)

○ Utilities (12)

○ Other (13) _____

Q57 Are you in a management or supervisory role?

○ Yes (1)

○ No (2)

Q58 How many people do you manage or supervise on average?

○ 0-10 (1)

○ 11-25 (2)

○ 26-50 (3)

○ 51-100 (4)

○ More than 100 (5)

VITA

Ryan Limpus was born in Nashville, TN, and adopted by loving parents Frank and Sharon Limpus. He attended Aaron Academy as a homeschool student through high school and continued to Murray State University. While at Murray State, Ryan was a four-year starting member of their NCAA rifle shooting team and studied design engineering where he focused on geometric dimensioning and tolerancing and design for fabrication.

After graduation in 2016, Ryan moved to Chattanooga, TN where he took a position with Sherman and Reilly. While there, he worked as a design engineer designing and building powerline distribution equipment for two years. Following this, he moved to Ken Garner Manufacturing where he continued work for another year and a half as a design engineer designing tooling for large counterweight production and started to work as a project manager. Finally landing at Worldwide Finishing and Supply as a senior design engineer and engineering manager, Ryan now implements modern technology and design principles into paint and enamel finishing equipment all over the world. Ryan is also the owner of Limpus Engineering Solutions where he consults with engineering companies on education, design, and standard creation.

Ryan joined the University of Tennessee at Chattanooga (UTC) in August 2020 and will graduate in August 2023. He plans to continue his education through the doctoral level and has applied to multiple schools.