University of Denver
Digital Commons @ DU

Electronic Theses and Dissertations | Graduate Studies

6-15-2024

Leadership in Extreme Contexts: An Emerging Typology

Ashley Williams

Follow this and additional works at: https://digitalcommons.du.edu/etd

Part of the Health and Medical Administration Commons, Leadership Commons, and the Other Business Commons

All Rights Reserved.

Leadership in Extreme Contexts: An Emerging Typology

Abstract

This study investigates the relationship between leadership and extreme contexts through the lens of rural hospitals facing environmental jolts. Rural hospitals offer a unique setting for this research, given their inherent geographic isolation, lack of resources, and the critical role these facilities play in their communities. Through a qualitative analysis of interviews with Chief Executive Officers of rural hospitals, this research takes a grounded approach to build theory surrounding how leadership not only shapes but is shaped by extreme contexts and environmental jolts. The research results in four primary contributions. Namely, this study extends existing typologies on leadership in extreme contexts, proposing an updated model based on real-world experiences of leaders operating in extreme contexts. The research also supports the existence of a recursive relationship between leader and context in extreme environments. Next, it successfully integrates the previously distinct bodies of literature on extreme contexts and environmental jolts. Lastly, it builds out the relationship between adaptive leadership and jolts within extreme contexts, highlighting leaders' short and long-term responses. Collectively, these results extend leadership theory and emphasize the critical impact context has in influencing leader behavior while also considering how leadership, in turn, changes the context, particularly in extreme cases facing environmental jolts.

Document Type

Dissertation

Degree Name

Ph.D.

First Advisor

Aimee Hamilton

Keywords

Business, Leadership, Hospital leadership, Rural

Subject Categories

Business | Business Administration, Management, and Operations | Health and Medical Administration | Leadership | Other Business

Publication Statement

Copyright is held by the author. User is responsible for all copyright compliance.

Leadership in Extreme Contexts: An Emerging Typology

A Dissertation

Presented to

the Faculty of the Daniels College of Business

University of Denver

In Partial Fulfillment

of the Requirements for the Degree

Doctor of Philosophy

---

by

Ashley Williams

June 2024

Advisor: Dr. Aimee Hamilton

©Copyright by Ashley Williams 2024

All Rights Reserved

Author: Ashley Williams
Title: Leadership in Extreme Contexts: An Emerging Typology
Advisor: Dr. Aimee Hamilton
Degree Date: June 2024

Abstract

This study investigates the relationship between leadership and extreme contexts through the lens of rural hospitals facing environmental jolts. Rural hospitals offer a unique setting for this research, given their inherent geographic isolation, lack of resources, and the critical role these facilities play in their communities. Through a qualitative analysis of interviews with Chief Executive Officers of rural hospitals, this research takes a grounded approach to build theory surrounding how leadership not only shapes but is shaped by extreme contexts and environmental jolts. The research results in four primary contributions. Namely, this study extends existing typologies on leadership in extreme contexts, proposing an updated model based on real-world experiences of leaders operating in extreme contexts. The research also supports the existence of a recursive relationship between leader and context in extreme environments. Next, it successfully integrates the previously distinct bodies of literature on extreme contexts and environmental jolts. Lastly, it builds out the relationship between adaptive leadership and jolts within extreme contexts, highlighting leaders' short and long-term responses. Collectively, these results extend leadership theory and emphasize the critical impact context has in influencing leader behavior while also considering how leadership, in turn, changes the context, particularly in extreme cases facing environmental jolts.

Table of Contents

Chapter One: Introduction 1

Chapter Two: Relevant Theory and Literature 7
Extreme Contexts 8
Crises Versus Extreme Events 13
Leadership in Extreme Contexts 13
Extreme Leadership as Inherently Contextualized 18
Recursiveness of Extreme Leadership 20
Contingency Theory within Extreme Leadership 23
Rural Hospitals as an Extreme Context 24
Environmental Jolts 26
Opportunity for Theoretical Contribution 28

Chapter Three: Methodology 30
Research Design 30
Participants 31

Chapter Four: Findings 38
Attenuators (Dimension 1 in Figure 3) 38
Community Connectedness 38
Citizenship Behavior 41
Dimensions of Extreme Contexts 44
Resources Available to the Organization 46
Intensifiers (Dimension 2 in Figure 3) 47
Vacuum of Resources 48
External Regulators 49
Recursiveness of Context-Leader Relationship (Dimension 3 in Figure 3) 52
Context Impacts Leader 52
Leader Impacts Context 54
Mutual Effect 56
Environmental Jolts (Dimension 4 in Figure 3) 56
Types of Jolts 57
Jolt Characteristics 60
Post-jolt Outcomes (Dimension 5 in Figure 3) 63
Organizational Changes 63
Survival 65
Adaptive Leadership (Dimension 6 in Figure 3) 66
In Response to a Jolt 66
In Response to the Extreme Environment 67
Grounded Model 70

Chapter Five: Discussion, Contributions, and Conclusion 72
Expanded Typology 72

Attenuators and Intensifiers 73
Recursive Relationship 76
Integration of Jolt and Extreme Context Literature 78
Environmental Jolts in Extreme Contexts 78
Adaptive Leadership 80
Updated Typology 82
Future Research 87
Limitations 88
Conclusion 90

References 92

Appendix A: Interview Protocol 106

Appendix B: Exemplary Quotes 108

Chapter One: Introduction

The objective of this research is to explore the inter-connectedness between leadership and context when that context is extreme and prone to environmental jolts. Extreme contexts are defined by Hannah et al. (2009) as, "an environment where one or more extreme events are occurring or are likely to occur that may exceed the organization's capacity to prevent and result in an extensive and intolerable magnitude of physical, psychological, or material consequences to—or in close physical or psychosocial proximity to—organization members" (p. 898).

Meyer (1982) defines environmental jolts as, "sudden and unprecedented events that elicit changes so extensive that they overwhelm the adaptive capacities of an organization and surpass the comprehension of seasoned managers" (p. 515). These jolts have the power to either positively or negatively shape corporate outcomes, depending on leadership's ability to adapt. Although extreme contexts and jolts appear conceptually related, the literature streams have proceeded mostly along separate paths. Further, the existing leadership typologies within extreme contexts are untested and incomplete. In seeking to understand how organizations in extreme contexts respond to jolts this study integrates the two literatures. It also builds out the typology developed by Hannah et al. (2009) using real-world experiences of Chief Executive Officers (CEOs) operating in

extreme contexts. Of particular interest is the extent to which the relationship between leadership and extreme contexts is recursive.

The topic of this study fills a theoretical gap and has practical implications for a wide range of organizations, not just those operating in extreme contexts. Investigating the intersection of extreme contexts and jolts, this study's research question is as follows: "How might leadership shape and be shaped by extreme contexts and organizational jolts?" To address this, data were collected and analyzed from CEOs who lead in one type of extreme setting, specifically rural hospitals across the United States.

According to the U.S. Census Bureau (2017), a rural community is defined as "any population, housing, or territory not in an urban area." While this definition is quite broad, a more precise definition of rurality can be reverse engineered by considering the Census Bureau's 2017 definition of an urbanized area as one with greater than 50,000 residents. By default, one can then define rural areas as those with populations of 50,000 or fewer. Unlike in urban settings where urgent and emergent care centers are ubiquitous, in rural communities, access to even the most basic care is often limited, if available at all. Considering that 97% of the land in the U.S. is considered rural (U.S. Census Bureau, 2017), this indicates that the healthcare needs in a significant swath of the country are gravely underserved. For example, within the state of Colorado, 11 of 64 counties do not have any hospital, and two have neither a hospital nor a clinic, leaving the communities in those counties wholly without accessible healthcare (Colorado Rural Health Center, 2024). For perspective, Saguache County in Southern Colorado has no hospital within its

boundaries, yet it is larger than the state of Delaware (Colorado Rural Health Center, 2024).

Despite the number of people living in rural communities, there is a fundamental lack of resources in these areas. Beyond the financial limitations associated with rural living (Wishner et al., 2016), additional constraints include scarcity of resources (Slonim et al., 2020), supply chain issues (Kaufman, 2020), geographic isolation (Ameh et al., 2020), and political bureaucracy (Kaufman et al., 2016). These factors exacerbate a rural hospital's ability to anticipate or prevent extreme events and thus render the context in which rural healthcare is delivered extreme. Because rural hospitals frequently face situations that impact their ability to prevent events of a severe and intolerable magnitude, environmental jolts arguably impact rural communities disproportionally compared to their urban counterparts.

Contingency theorists have argued that situational factors play a critical role in leadership and organizational outcomes (Ayman et al., 1995; Perrow, 1970; Vroom et al., 2007). The primary argument is that leader effectiveness hinges on the leader's personal style and the degree to which the situation allows the leader to exert influence (Fiedler, 1967). In this vein, extreme leadership is not a stand-alone construct but instead a component of leadership and contingency theory that acknowledges that leadership must be contextualized:

> We argue that leadership is embedded in the context. It is socially constructed in and from a context where patterns over time must be considered and where history matters. Leadership is not only the incremental influence of a boss toward subordinates, but most important it is the collective incremental influence of leaders in and around the system. (Osborn, 2002, p. 798)

Hannah et al. (2009) expound on this by stating that leadership is not passively influenced by extreme conditions. Instead, it "can interact with the context and serve to intensify or attenuate levels of extremity" (Hannah et al., 2009, p. 898). In other words, leadership is a key construct when looking at extreme conditions--one that will directly and inextricably impact outcomes.

A comprehensive literature review revealed a dearth of leadership research as it pertains to extreme contexts and environmental jolts, as not a single article could be found integrating the constructs. This leaves the field ripe for exploration. As a result, this study also extends current research and defines an important and unexplored phenomenon within leadership theory.

There are several practical implications for advancing this area of research. Approximately 60 million people, one in five Americans, live in rural communities (U.S. Census Bureau, 2017). Therefore, the topic of rural medicine and leadership in these extreme contexts impacts a large percentage of the population across the vast landscapes of America. Moreover, environmental jolts have the potential to devastate these communities, as they lack the resources to deal with these organizational shocks. Lessons learned about leadership in extreme contexts can help to better prepare leaders of the hospitals that serve these populations for future adverse events.

According to Beckers Hospital Review (2022), 59% of the rural hospitals in the U.S. are at risk of closure due to financial shortfalls and a lack of monetary reserves, which may be due in large part to how the hospitals are managed and led. Any knowledge gleaned in this research can potentially help protect access to healthcare in these

communities. Moreover, this research answers the call to action from numerous researchers (Bundy et al., 2017; Hannah et al., 2014; Maynard et al., 2018; Porter et al., 2006) who contend that looking at leadership in the microcosm of extreme contexts can help shape leadership in non-extreme contexts. Extreme conditions often strip away extraneous factors, simplifying complex dynamics and offering a purer view of effective leadership (Beechler et al., 2008). Additionally, the rigorous demands of extreme contexts act as an accelerated proving ground for leadership strategies, revealing those with the broadest potential applicability (Hällgren et al., 2018). By observing how these factors play out under the high-stakes pressure of an extreme context, researchers and practitioners can better understand their value in more conventional settings.

As the CEO of a company that partners with rural hospitals to staff and manage their emergency departments, the author has seen firsthand the devastation resulting from environmental jolts. The author has also witnessed hospital mismanagement and exploitation for CEOs' personal gain, directly harming the communities the CEOs were tasked to serve. These deeply moving personal experiences were the impetus for this research and why the author formed the implicit theory that executive leadership is directly tied to a hospital's success or failure, particularly during difficult times. A primary area of the author's interest is how leaders in these extreme environments change and, in turn, influence their environments. Linked to this, there is interest in identifying actionable steps for improved responses to future environmental jolts. Related to healthcare, particularly rural medicine, the author believes the keys to unlocking the steps necessary for improvement lie in examining firsthand stories of leaders within these rural

populations. The goal of this research is to help propel those interested in rural healthcare improvement toward greater understanding and growth, particularly regarding leadership in extreme contexts.

In summary, this research embarks on the critical exploration of the inter-connectedness between leadership and extreme contexts, particularly in the challenging setting of rural hospitals in the United States. By addressing the research question, "How might leadership shape and be shaped by extreme contexts and organizational jolts?" the author aims to shed light on the recursive dynamic within that relationship. The research contributes to the field by bridging an important theoretical gap and carries practical implications for a substantial portion of the population living in rural communities. As rural hospitals face the risk of closure and subsequent decreased access to healthcare for millions of Americans, the insights gained from this study can offer guidance to leaders and administrators within these vulnerable communities, while also enriching the broader field of leadership theory.

Chapter Two: Relevant Theory and Literature

To fully understand this topic, a literature review was conducted to systematically examine and organize the current body of research literature that either quantitatively or qualitatively explores extreme contexts and environmental jolts, particularly as they pertain to rural healthcare. Inclusion criteria were papers written in the English language, academic papers, and research done by medical institutes such as the American Medical Association and the American College of Emergency Physicians. Exclusion criteria included studies on procedures and clinical outcomes, and papers on technology such as telemedicine and ultrasound.

The review begins by examining the extant definition of an extreme context, differentiating it from the concept of "crisis" in the literature while simultaneously applying the definition to rural settings. The exploration subsequently shifts to leadership in extreme contexts, drawing on contingency theory to consider the impact of situational factors. It then defines environmental jolts and their ability to transform organizations. Through this process, this literature review identifies a gap in the research as it pertains to leadership in extreme contexts during an environmental jolt. It also raises doubt about the validity of existing typologies on leadership in extreme contexts, including those used to define extreme contexts as *risky*, *emergency*, and *disruptive* (Hällgren et al., 2018). Lastly, this review highlights a collective call from scholars to extend leadership research

into extreme contexts (Bundy et al., 2017; Hannah et al., 2014; Maynard et al., 2018; Porter et al., 2006).

Extreme Contexts

Research specific to extreme contexts first appeared in the literature in the early 1980s (Lanzara, 1983) and is largely fragmented, encompassing numerous academic domains, including organizational, psychological, and management scholarship. One of the predominant issues within the literature is that the terminology across the bodies of research varies significantly. Researchers often use terms like adverse events, rare events, extreme events, extreme contexts, hazardous events, disasters, crises, and hyper-turbulence to describe the same or similar phenomena of an organization being affected by "a sudden, often unanticipated, event or series of events” (Hällgren et al., 2018, p. 113). Thus, there have been frequent calls to action to apply more academic rigor to the field, both theoretically and empirically, particularly as it applies to leadership in extreme contexts (Bundy et al., 2017; Hannah et al., 2014; Maynard et al., 2018; Porter et al., 2006).

Hannah et al. (2009) set the stage by developing the most robust and widely accepted definition to date. They define an extreme event as "a discrete episode or occurrence that may result in an extensive and intolerable magnitude of physical, psychological, or material consequences to—or in close physical or psychosocial proximity to—organization members" (p. 898). They then use this to build out the definition of extreme contexts as environments where a minimum of one extreme event has occurred or is likely to occur. Notably, any organization can experience an extreme

event and be thrown into an extreme context. For instance, the Pentagon at 9:00 a.m. on 9/11 likely was not an extreme context, but it became one a few minutes later. Extreme events are often nested in extreme contexts, but that is not always the case (Hannah et al., 2014).

It is important to note that this latter definition includes extreme events with a high probability of occurring and ones that have already occurred. This distinction allows organizations to be defined as extreme, even if they are preparing for an extreme event but have not actually experienced one. For example:

> A context can be characterized as extreme when organizational routines are specifically implemented in daily operations or in plans and modalities in order to prevent or prepare for events that are likely to occur and that would affect the normal life of an organization with significant (even intolerable) consequences for its members as well as for the groups and communities related to the organization (Hällgren et al., 2018, p.115).

Hällgren et al. (2018) performed a comprehensive literature review and subsequently developed a context-specific nomenclature to apply to research on extreme contexts. They striated the existing literature into three subtle but distinct streams: risky contexts, emergency contexts, and disrupted contexts. These are depicted in Figure 1. The authors gave the following examples of each: *risky* – U.S. Special Forces in Iraq, *emergency* – the Emergency Department of a South Chicago hospital and *disrupted* – the aftermath of the Boston Marathon bombing.

Figure 1 *Matrix of the Contexts Activities According to Events Occurrence*

		Contexts activities	
		Related	Unrelated
Events occurrence	Potential	***Risky context*** e.g. **nascar racing** - Bothner et al, 2007; **oil drilling** – Topal, 2009; **firefighting** (Bigley & Roberts, 2001)	
	Actual	***Emergency context*** e.g. **hospitals** – Nembhard & Tucker, 2011; **space exploration** Vaughan, 1990; **police** –Cornelissen et al, 2014; **wildland firefighters** – Weick, 1990	***Disruptive context*** e.g. **genocide** – Clegg et al, 2012; **natural disasters** - Shepherd & Williams, 2014; **terrorist attacks** - Quinn & Worline, 2008

Note. Figure from: Hällgren, M., Rouleau, L., & De Rond, M. (2018). A matter of life or death: How extreme context research matters for management and organization studies. *Academy of Management Annals*, *12*(1), 111-153.

The authors define risky contexts as ones that experience almost constant exposure to the potential of extreme events (Hällgren et al., 2018). Organizations operating in risky contexts must have reliable systems in place to mitigate risk, with safety being the top priority. Within risky contexts, Weick & Roberts (1993) argue that culture is best illustrated as a collective mind where individuals and parts of the organization may compensate for each other's shortcomings by being sensitive to nuances in the operations, and where actors consciously think of their actions as interrelated with other activities as part of a larger system. In these high-reliability organizations, leadership can significantly prevent accidents through operational activities and strategic decisions (Rijpma, 1997; Veazie et al., 2019). Prior studies investigate the operational

design and organizational structure necessary to mitigate risk within extreme contexts, including corporate culture and organizational norms (Klein & Kozlowski, 2000).

According to Hällgren et al. (2018), emergency contexts differ from risky contexts in that rather than facing the potential of an extreme event, an extreme event has already occurred; thus, research shifts to investigating how organizations, groups, and individuals within the organizations react to such events. Karl Weick (1990), the most prolific researcher in this space, wrote that a series of events can transform minor errors into much larger ones. These include the disruption of routines, decreased cognitive efficiency, and diminished communication (Karl Weick, 1990). This becomes the basis for the bulk of the research in this category, in addition to studies on the emotional and stress-related components faced by the players in emergency contexts.

Disrupted contexts are similar to emergency contexts in that research in this field surrounds actual events (Hällgren et al., 2018). The difference between emergency and disrupted contexts, however, is that emergency contexts allow for preparation, while disrupted events generally happen without warning, and organizations are often left unprepared (Hällgren et al., 2018). In disrupted contexts, it is common to see the development of short-term, temporary groups and organizations that can mobilize quickly and focus on the disaster or crisis at hand (Majchrzak et al., 2007). These organizations are efficient because they can improvise, bypass potential red tape, and foster collective action (Hällgren et al., 2018). Of the three contexts outlined, the disrupted context is the newest concept and has the least amount of research dedicated to it, leaving it wide open for future exploration.

The typology put forth by Hällgren et al. (2018) appears to have significant gaps. The matrix the authors created (Figure 1) positions the empirical context of the articles they reviewed based on two criteria: whether the incident actually happened and whether the event was directly related to the organization's core activities. The most fundamental issue with this categorization is that the authors omit an entire quadrant, specifically events that have the potential to occur and are unrelated to the organization's core activities. They briefly address this uninhabited quadrant, stating that they simply could not find any articles that fit these selection criteria during their literature review.

Secondly, and more significantly, this typology does not consider blended contexts. For example, it could be argued that an emergency department of a rural hospital during the COVID-19 pandemic fits the classification for all three contexts. It is a *risky* context because the healthcare providers in any emergency department are constantly bracing for the possibility of an unknown extreme event, it is an *emergency* context because they are quite literally responding to medical emergencies in providing patient care, and the context is considered *disruptive* because the pandemic was an event that was unrelated to the hospital's principal activities yet shocked the healthcare system to its core.

Lastly, it appears that the classification of disrupted contexts is a misnomer. In looking at the literature on environmental jolts, the disrupted contexts Hällgren et al. (2018) reference more accurately fit the definition of environmental jolts, which are widely defined in the literature as instances that are unprecedented and uncategorizable (Christianson et al., 2009). This will be further explored in subsequent sections.

Crises Versus Extreme Events

While organizational crises and extreme events are similar, it is essential to distinguish between the two. Hermann (1969) defines a crisis as "a situation that threatens high priority goals, which suddenly occur with little or no response time available" (p. 159). It is a general term and typically encompasses situations that are more commonplace than extreme events, examples of which include boycotts, computer breakdowns, employee violence, and hostile takeovers (Kovoor-Misra et al., 2001). While a crisis may threaten high-priority goals, the magnitude of an extreme event is intolerable to an organization (Hannah et al., 2009). There is a temporal distinction, as well. A crisis is defined as having a limited or highly abbreviated response time, while in an extreme context, preparation can be involved for the possibility of an extreme event. It is worth noting that the literature suggests that a crisis can evolve into an extreme context (Ember and Ember, 1992). Hannah et al. (2009) posit that "a crisis can lead to a scarcity of resources (e.g., water), leading to social and moral breakdowns that could promote extreme contexts, such as war, famine, and civil unrest. (p.900)"

Leadership in Extreme Contexts

Very few articles focus on extreme contexts from a leadership perspective. Hällgren et al. (2018) examined all articles in top-tier journals on emergency contexts between 1980 and 2015 and found only two that investigated a manager's active role in emergency situations. Both looked at middle managers, and neither included qualitative work. The first, by Mintzberg (2001), explored two Red Cross managers in a Tanzanian refugee camp. He found that the main functions of middle managers pertained to

communicating and controlling chaos. Beck and Plowman (2009) propose a multi-level model of convergent sensemaking for middle managers during each stage of a rare or unusual event. Hannah et al. (2009) corroborate the lack of research in this area by stating that they believe extreme leadership is likely the least researched area within the leadership field. Moreover, the authors emphasize that it is precisely in extreme contexts that leadership and leadership research are most needed. It is within the macro-level, context-driven perspective that leadership can truly be understood.

Subsequent to the foundational work by Hannah et al. (2009), interest in this field began to garner more scholarly attention. In a recent SCOPUS literature review performed by the author of this paper, 373 academic articles published between 2010 and 2023 were found that cited Hannah et al. (2009). The search excluded books, book chapters, editorials, and retracted pieces. Upon filtering, forty-one articles referenced leadership in extreme contexts, with six tangentially or directly applicable to the research outlined in this paper. Excluded articles addressed research on leadership in virtual environments, follower prototypicality, and a case study regarding psychological capital on post-civil war plantations.

Within the applicable literature, one key article—focused on COVID-19 and leaders in the healthcare space—referred to a specific component of the typology developed by Hannah et al. (2009), namely how time and temporal demands require resiliency when a leader is faced with adversity (Förster et al., 2023). Specifically, the authors postulate that time becomes a critical factor during a crisis, making difficult situations more uncertain and complex. They argue that leaders impact their environment

during disruptive times by influencing both organizational and employee resilience. The paper calls for future research on how temporal factors mandate short versus long-term strategies by healthcare leaders.

Dale Oen et al. (2022) also speak to resiliency through the coping and adaptive strategies employed by Norwegian business leaders during COVID-19. They found that success required the rapid restructuring of corporate processes and the implementation of new routines followed directly by providing care and support to their employees during the first wave of the pandemic. Interestingly, several of the business leaders they interviewed indicated enthusiasm for the opportunity to make a meaningful difference during a difficult time.

A predominant theme among the relevant articles surrounded communication during unstable times. Research by Rosenbusch et al. (2023) revealed the importance of both obtaining reliable information and communicating effectively with stakeholders. Rosenbusch and her colleagues qualitatively evaluated the role non-profits played during COVID-19 and how leaders of non-profit organizations in the United States and India responded to the pandemic. They found that the crucial crisis leadership tasks were cultivating reliable information, communicating effectively with stakeholders, and developing creative solutions. Moreover, they determined that when the government is stretched due to a jolt, non-profits are essential in providing support, particularly for vulnerable populations.

Braga & Santos (2023) echo this, finding that unclear leader communication amplified adverse effects on their followers' well-being during the pandemic. This was

especially acute when businesses prioritized operational demands over employee needs. The authors developed a theoretical model that expounded on Hannah et al. (2009) and was informed by their review of sixteen articles published over a two-year period beginning January 2021. The framework incorporated three new components: global reach, extended duration, and the fundamentally necessary yet impossible lack of preparation that defined the pandemic. Their updated model considers that leaders may attenuate adverse effects on their employees by facilitating material and psychological resources. In the articles they reviewed, doing so led to reduced anxiety and increased resilience among their teams. Conversely, failing to provide or effectively communicate employee resources in favor of organizational needs led to adverse outcomes.

Another trend in the literature was transformational leadership. Arnold & Loughlin (2016) explored gender as it applies to transformational leadership in extreme contexts. They conducted in-depth interviews with men and women officers in the Canadian Armed Forces. The authors found that, at least in a military context, women's and men's leadership behaviors were quite similar. Surprisingly, rather than women adopting a masculinized form of leadership in these contexts, they found that men adopted a more feminized form of leading. Arnold & Loughlin (2016) conclude that in dangerous contexts—even highly masculine ones—individual consideration, which the authors identify as the most stereotypical dimension of transformational leadership, is a crucial driver of leader success regardless of gender.

In one of the most highly cited articles within this search, Geier (2016) compared leader's styles in a non-extreme context to their styles during an extreme situation. A

firehouse was used as a backdrop to compare a typical working day to when firefighters were on an emergency call. Geier (2016) explicitly tried to debunk the notion that a leader-follower relationship exists in a vacuum without being influenced by context. He directly cited Hannah et al. (2009) when asserting that extreme contexts possess unique factors that differentiate them from a normal context: location/time, magnitude of potential consequences, probability of those consequences happening, physical and psychosocial proximity to danger, and form of the threat. Collectively, these influence leadership effectiveness. Within the firehouse, firefighters were asked to rate their captains, and captains were asked to rate their firefighters. The results showed that while transformational leadership was the leading predictor of follower performance during normal conditions, transactional contingent reward leadership was a better predictor of follower performance during extreme events. Moreover, leader behavior adapted between normal and extreme contexts, with the same leader being less transformational in extreme contexts. The key takeaway was that leadership styles changed depending on the context, meaning that context can change leaders. Additionally, that changes in leadership style were tied to performance indicates that leadership styles influence the context. These findings support the idea of a recursive relationship between context and leadership.

Taken together, these studies of leadership in extreme contexts suggest the following ideas are likely to be relevant when addressing the research question of the present study. First, these works emphasize the importance of resilience, adaptability, and the critical role of adaptive strategies in organizations facing difficult situations (Dale Oen et al., 2022; Förster et al., 2023). Second, a leader’s influence in such scenarios is

underscored by their capacity to manage chaos, highlighting the importance of effective communication and its vital role in stakeholder management and crisis mitigation (Braga & Santos, 2023; Mintzberg, 2001; Rosenbusch et al., 2023). Third, leadership in extreme circumstances has intrinsic complexity, suggesting a dynamic relationship between leadership and the specific demands of extreme contexts (Arnold & Loughlin, 2016; Geier, 2016).

Extreme Leadership as Inherently Contextualized

Leadership is contextualized by its very nature (Hannah et al., 2014). Osborn et al. (2002) posit that if a context is changed, leadership itself will also change. They make sixteen propositions in an effort to move current scholarship towards the notion that macro views bear importance within leadership literature, as well as in strategic and organizational research. They argue that leader influence is currently erroneously minimized within all of these fields. To put it succinctly, Osborn et al. (2002) eloquently state, "One cannot separate the leader[s] from the context any more than one can separate a flavor from a food" (p. 799).

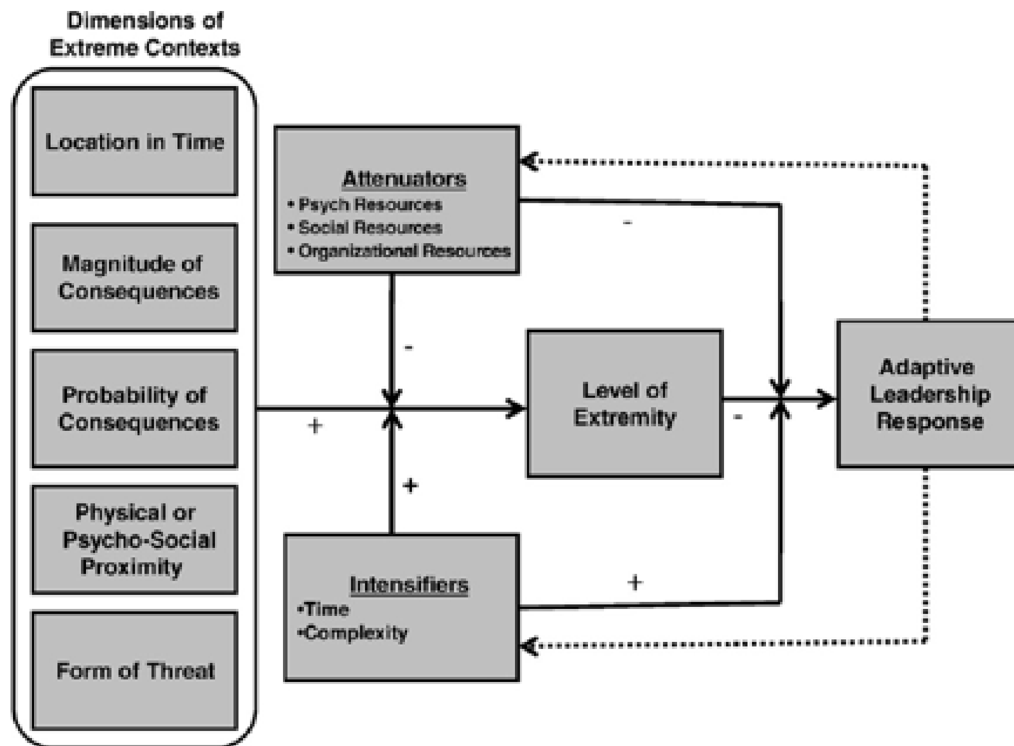
This is particularly true in extreme contexts. Hannah et al. (2009) explain that "leadership is not just passively influenced by extreme contexts, but can interact with the context and serve to intensify or attenuate levels of extremity" (p. 898). For example, transformational leaders have been found to enhance the overall well-being of their team in extreme contexts, as measured by work engagement and emotional exhaustion (Marques-Quinteiro et al., 2022), which can be viewed as an attenuating effect. At the other end of the spectrum, the unraveling of leadership in extreme contexts due to various

factors has led to deaths among teams functioning in extreme contexts (Weick, 1993). As Currie et al. (2009) find in their mixed-method research of social deprivation in secondary schools in England, leadership cannot be extricated from factors surrounding organizational context. Moreover, it appears that leadership in extreme contexts may both influence and be influenced by the nature of the environment, presenting a circular or iterative relationship (Endrissat & von Arx, 2013; Hannah et al., 2010).

This concept was first explored by Hannah et al. (2009) in their typology of extreme events (Figure 2), in which the researchers define five components of extreme events: location in time, magnitude of the consequences, probability of consequences, psychosocial/physical proximity, and form of threat. They also identify attenuators and intensifiers within this model. Attenuators are psychological, social, and organizational resources, while intensifiers include time and complexity. According to the authors, these are the factors that leaders can impact most directly. For example, Hannah et al. (2009) postulate that "leadership is critical in preparation of an extreme event to provide foresight, planning, training, and other preparedness efforts" (p. 902).

While this typology is fundamentally valid, it is incomplete. It lacks empirical validation and only peripherally refers to the critical component of how leadership itself shapes context, particularly in extreme contexts.

Figure 2 *Typology of Extreme Events*



Note. Figure from: Hannah, S. T., Uhl-Bien, M., Avolio, B. J., & Cavarretta, F. L. (2009). A framework for examining leadership in extreme contexts. The Leadership Quarterly, 20(6), 897-919.

Recursiveness of Extreme Leadership

Hannah et al. (2010) builds on Hannah et al. (2009) by exploring the recursive nature of leadership, specifically within teams facing dangerous contexts. Hannah et al. (2010) postulate that through the creation of "emergent states," teams can form a reciprocation that can either positively or negatively impact processes and, ultimately, team performance (p. S172). This leads to upward or downward "self-fueling spirals" (p. S173). The authors go on to issue a call to action over the lack of scholarly activity on the topic and state that "leadership is uniquely contextualized when confronting dangerous contexts such that specific causations and contingencies occur that are not present in non-

dangerous contexts" (Hannah et al., 2010, p. S157). This was the sole article that could be located pertaining to how leadership both shapes and is shaped by context in reference to extreme contexts.

This review produced only two additional articles within the general leadership domain that reference the recursiveness between context and leadership. While they do not explicitly reference extreme contexts, they merit inclusion. The first article explored a schoolteacher's experience successfully manipulating context to build influence (Wallace & Tomlinson, 2010). The authors developed what they refer to as a conceptualization of the evolutionary relationship between the activities of a leader and context. They focused on a specific leader's intentional manipulation of contextual factors by examining headteachers, vice-chancellors, and CEOs within the English public school system. The leader in question was a headmaster of a boy's school who was able to maximize his agency over the context and build his "capacity for future influence," the results of which directly led recursively to successful future activity (Wallace & Tomlinson, 2010, p. 39). Specific activities he undertook to build influence, despite having an ineffective senior leadership team, include developing a strategic vision, augmenting traditional text-based learning systems, and increasing efficient communication among his team. This work supports the notion that context is malleable and that "it can facilitate the emergence of new spaces for leaders to expand influence" (Wallace & Tomlinson, 2010, p. 40).

The second article that directly references the recursive nature of the context-leadership dynamic was a longitudinal case study within the Swiss healthcare system (Endrissat et al., 2013). To modernize its practice, a hospital in Switzerland

commissioned a reorganization in 2004 that included the development of strategic initiatives aiming to establish a more holistic, process-oriented hospital. Specifically, additional treatment centers were added to the system with the intention that patient care should become more integrative and less siloed by specialty. The key player in this strategic initiative was the project lead, a surgeon with an MBA, whom the executive committee had appointed. To understand how change was accomplished, the authors collected data such as meeting minutes and observations and conducted semi-structured interviews with various stakeholders and informants. Based on their research, Endrissat et al. (2013) concluded that leadership is not only influenced by context, leadership itself actually produced the context in which the leaders operate. They state that leaders achieve this through their day-to-day leadership behaviors—often micro-level interactions—which are both "context-shaped" and "context-shaping" (p. 278). In their words, leadership and context are two sides of the same coin (Endrissat et al., 2013).

Based on these articles, it can be seen that a reciprocal relationship exists within this leadership-context dynamic. However, the scarcity of scholarly attention to this construct within the literature demonstrates that the recursive nature of adaptive leadership is grossly underexplored. This literature review demonstrates that we are just starting to uncover how leadership and context influence each other. Investigating this construct, especially in extreme situations, adds a valuable layer to extant leadership theory. It further aims to substantiate or refute this iterative relationship posited between leaders and context, thereby extending theory in this particular domain.

Contingency Theory within Extreme Leadership

In exploring extreme contexts within the leadership literature, contingency theory is most relevant as it incorporates situational demands as a modifier between leader behavior and organizational outcomes (Fiedler, 1967; Klein et al., 2006; Klein et al., 2006). Evaluating the literature through a broader lens, leadership theory can be organized into three waves (Lord et al., 2017). The first wave pertains to a leader's behaviors and follower attributes (Fleishman, 1953; Stogdill, 1948; Stogdill et al., 1948). The second largely encompasses gender studies, early transformational leadership, social-cognitive theory, and situational factors (Eden et al., 1975; Fiedler, 1964; Hater & Bass, 1988; Schein, 1973). The last wave entails research on leadership in teams, leader-member exchange theory, charismatic/transformational leadership, trust, and meta-analyses of leader traits and styles (Bono & Judge, 2004; Dirks & Ferrin, 2002; Gerstner et al., 1997; Judge & Piccolo, 2004; Marks et al., 2000). This review focuses on the second wave, specifically on situational factors and associated contingency theory.

The contingency theory of leadership effectiveness was first proposed by Dr. Fred Fiedler in 1967 and was subsequently refined by others, including Fielder and his colleague, Dr. Martin Chemers, in 1974. The model states that a leader's effectiveness comprises two distinct components. The first is the leader's personal attributes, defined as the leader's "task or relationship motivational orientation" (Ayman et al., 1995, pg. 148), which refers to their style. The second leadership factor is their situational control, also known as their situational favorability (Fiedler, 1971). Central to this theory is the notion that a leader's effectiveness depends on the interaction between their style and their

ability to exert influence on a given situation. The model predicts that a relationship-oriented style will be best suited in high- and low-control contexts, and a task-oriented style would be best utilized in intermediate situations. Ayman et al. (1995) argue that the model can be applied to various units of analysis, including at the individual, group, and organizational levels.

Subsequent authors have attempted to finetune the model over the last fifty years, but the core model of contingency theory remains foundational within leadership literature. The most impactful takeaway from Feidler's research is that there is no definitive best style of leadership. Leadership is instead inextricably tied to context. This research highlights the importance of understanding situational factors and adapting a leader's style to best fit the demands of the context. It is, thus, most applicable when trying to understand leadership in extreme contexts.

It is worth noting that Situational Leadership Theory ® (interestingly, a trademarked concept by Hersey et al., 1979) is similar yet distinct from contingency theory. While they both recognize the importance of adaptive leadership, they differ in scope and focus. Situational Leadership Theory ® addresses how leaders should adapt their style based on follower readiness, while contingency theory encompasses a much broader set of situational factors that can impact leader effectiveness, as outlined above.

Rural Hospitals as an Extreme Context

Numerous articles specifically identify aspects of healthcare as inherently extreme. Hannah et al. (2009) and Hannah et al. (2014), for instance, cite hospital emergency rooms and emergency medical teams as trauma organizations operating in an

extreme context. Organizations operating in these contexts experience frequent extreme events and must be perpetually on alert, thus requiring "vigilance, situational awareness, and preparedness" (Hannah et al., 2009, p. 900). In their literature review, Hällgren et al. (2018) used hospital-based action teams, hospitals in South Chicago, hospital ICUs, emergency departments, and medical units for illustrative purposes when discussing extreme contexts. It is, thus, widely accepted that various facets of healthcare, specifically those that directly support patients and face extreme events, can be classified as an extreme context per the definition put forth by Hannah et al. (2009).

This paper argues that extremeness is intensified in healthcare delivered by rural hospitals. It has been shown that a disparity exists between the delivery of medical care in urban hospitals versus rural hospitals (Handel et al., 2007), with rural populations tending to be poorer, less educated, older, and often more medically vulnerable than urban residents (Goldman et al., 2008). Contributing factors include financial, workforce, and educational concerns, as well as physical isolation from critical resources (Williams et al., 2001). Williams et al. (2001) expound:

> The delivery of high-quality [care] in a rural setting requires a conceptual framework quite different from that required in urban and suburban environments, given that available resources are limited in the rural setting. The intermittent and episodic nature of seriously ill and injured patients makes it difficult to plan, staff, and equip in order to provide emergency medical care at the same level seen at higher volume urban or suburban institutions. (p. 323)

Ember & Ember (1992) demonstrated that a scarcity of resources—in this case, healthcare-related resources—can enable the emergence of extreme events and, thus, extreme contexts. Additionally, referring to the definition of an extreme context, an event must exceed an organization's capacity to prevent it. In a rural hospital setting, where an

organization is perpetually at risk of facing an existential threat, the context is the true definition of extreme. Hannah et al. (2009) state that "the level of extremeness is therefore related to the nature of the organization and the capabilities it has to respond to extreme events" (p. 909). Not only are rural hospitals intrinsically considered extreme when looking at the broad definition of healthcare, physical isolation and lack of resources contribute to classifying rural healthcare as even more extreme when compared to their urban and suburban counterparts.

Environmental Jolts

The author of this paper argues that the concept of *disrupted contexts*, as defined by Hällgren et al. (2018), is synonymous with that of environmental jolts. Hällgren and his colleagues cite the work of Christianson et al. (2009) by characterizing disrupted contexts as rare and "frequently portrayed as unique, unprecedented, or even uncategorizable" (p. 846). This definition corresponds precisely with the foundational definition of environmental jolts presented by Meyer (1982) as sudden and unprecedented events that can profoundly affect firm outcomes. He labeled them "transient perturbations whose occurrences are difficult to foresee and whose impacts on organizations are disruptive and potentially inimical" and, for illustrative purposes, used a widespread doctor's strike among hospitals in San Francisco in 1975 as an example (p. 515). Other occurrences of environmental jolts cited in the literature include global pandemics, sociopolitical upheaval, and corporate acquisitions (Bird, 2021; Meyer et al.,1990; Wan et al., 2009).

Given the clear commonality at the definitional level, it could be argued that the disrupted contexts the literature refers to are the same phenomena as environmental jolts. For example, Hällgren et al. (2008) cite natural disasters as disrupted contexts, while Bradley (2015) refers to them as environmental jolts. Similarly, Hällgren et al. (2008) define terror attacks as disrupted contexts, while Goll and Rasheed (2011) list them as environmental jolts. Based on this obvious overlap, the contention is made that the terms disrupted context and environmental jolts are synonyms, and in this paper the author chose to rely on the more prolific environmental jolts.

Meyer et al. (1990) describe jolts as a "cataclysmic upheaval," one that elicits "changes so sudden and extensive that they alter the trajectories of entire industries, overwhelm the adaptive capacities of resilient organizations, and surpass the comprehension of seasoned managers" (p. 93). Because of the power of these jolts, organizational change shifts from an incremental, continuous process to a punctuated and discontinuous one, which can happen at both the firm and industry levels.

Environmental jolts warrant study because they can expose critical, previously unseen relationships and test organizational resilience (Bird, 2021). They allow organizations and even entire industries to experiment, stripping away the noise and facilitating the ability to focus on essentials (Meyer et al., 1990). Rapid change can occur in this context as parties work synergistically to combat a common threat. COVID-19 is a perfect example, as government agencies, corporations, and the general public worked together to combat the pandemic's biological, financial, and social effects.

Meyer (1982) evaluated the antecedents of environmental jolts and found that "ideological and strategic variables are better predictors of adaptations to jolts than are structural variables or measures of organizational slack" (p. 515). When facing a jolt, however, many organizations become rigid and gird themselves with existing protocols and strategies, waiting for the event to pass (Powell, 1991). Environmental jolts can invalidate existing corporate paradigms and produce significant trauma within an organization. It has been demonstrated that there is potentially a positive outlook for organizations experiencing an environmental jolt, as numerous studies have identified jolts as unique opportunities for organizational learning and growth (Bird, 2021; Meyer, 1982; Meyer et al., 1990; Wan et al., 2009).

Opportunity for Theoretical Contribution

In this nascent field of study, there appears to be a gap at the intersection of leadership in extreme contexts and environmental jolts. Even though research into this area of study could provide valuable theoretical and practical insights into how leaders in these precarious contexts navigate environmental disruptions, no article could be found that links the concepts.

As this research pertains to leadership in extreme contexts, the theoretical contributions are plentiful since this is a largely unexplored component of leadership theory. Per Hannah et al. (2014), "In extreme contexts, the contextualization of leadership is perhaps more pronounced and should be understood by researchers and incorporated into conceptualizations and models of leadership" (p.613). It is considered an under-researched area that warrants further study (Porter et al., 2006). While research in this

field can help inform and prepare leaders in extreme and non-extreme contexts, it also serves the critical role of extending contextualized leadership theory and defining theoretical boundaries within extreme context research. This research also allows the author to investigate the recursive nature of leadership in extreme contexts, which has previously been unstudied and is core to the research question presented in this paper.

Chapter Three: Methodology

Research Design

This study employed a qualitative approach and centered around interviewing twenty Chief Executive Officers as the primary source of data collection and the basis of this research (Stake, 1995). Born out of interpretivism, this research sought to understand and convey the stories of these leaders as they navigated environmental jolts within extreme contexts. To explore leadership and jolts in extreme contexts, inductive, one-on-one, semi-structured interviews were conducted with the CEOs using a list of fifteen multi-tiered open-ended questions. The interview protocol was constructed to engage the participants in an open discussion in which they felt comfortable sharing their experiences (Spradley, 1979). The interview questions were systematically divided into subsections aligned with the study's three primary thematic domains: extreme contexts, environmental jolts, and leadership, particularly the recursive nature of leadership in extreme situations. Each question was crafted to build on extant literature meaningfully, with the interview protocol outlined in Appendix A. Deliberate effort was made to establish rapport with each CEO before jumping into the substantive content of the interview. This cultivated an environment conducive to forthcoming inquiry.

Employing a naturalistic inquiry approach with this population provided valuable insights to better understand the fundamental research question in this research (Lincoln

et al., 1985). The interview protocol included questions such as, "What is it that sets rural hospitals apart from other types of hospitals?" and " What are some of the resources you have that allow you to serve your community well?" To explore environmental jolts, participants were asked how they handled sudden and unprecedented events, both organizationally and personally. Lastly, the questions explored leadership in these extreme contexts by inquiring about such topics as, "Do you think leading a rural hospital requires you to adapt your leadership style?" and, "Do you think your actions as a leader had a long-term or even permanent effect on your environment, the hospital, and the community you serve?"

Each interview was scheduled for one hour, with the opportunity for the CEO to continue the conversation if they desired. That decision was made solely by the informant. The interviews ranged from 23.23 minutes to 63.46 minutes, with a median length of 48.13 minutes. The author personally conducted the interviews using Zoom with a transcription service enabled. This allowed for the conversations to be recorded verbatim. To protect the privacy of the participants, each was assigned a random identification number, and all personal information was redacted from the transcripts. The output was then loaded into NVivo for coding.

Participants

The participants in this study were recruited from within the author's professional network and from reaching out to additional CEOs via email. The sampling was criterion-based, with the common thread being that all participants are or were CEOs of Critical Access Hospitals (CAHs).

To financially bolster rural hospitals and the communities they serve, the Centers for Medical & Medicaid Services (CMS) created the CAH designation for facilities that meet specific criteria. As background, CMS falls under the United States Department of Health and Human Services and is the federal agency that administers Medicare and partners with state agencies for the administration and funding of Medicaid programs. The criteria put in place by CMS for a hospital to be eligible for a CAH designation and thus qualify for additional federal funding and protection include having fewer than 25 acute care beds, having a length of stay for acute care of fewer than 96 hours, and being classified as non-metropolitan based on a radius that exceeds 25 miles to the nearest hospital (Medicare Learning Network, CMS). As of 2023, there were approximately 1,360 CAHs in the United States (Flex Monitoring Team, n.d.). Including only hospitals with a CAH designation within this research ensured relative uniformity in rurality, size, beds, functionality, finances, and access to resources.

The median age of the participants was 60.0 years, and the gender breakdown was 60% female and 40% male. All of the informants were Caucasian. The CAHs in the study were located in 12 states, including Arkansas, Arizona, Colorado, Iowa, Illinois, Indiana, Michigan, Minnesota, New Mexico, South Dakota, Washington and Wisconsin. Apart from two locations, the hospital was always the largest or second largest employer in town. Table 1 presents additional demographic information on the participants and the CAHs, which includes the CEO identification number, the CAH identification number, age of the CEO, gender of the CEO, ethnicity of the CEO, whether this was the first time the CEO had held that type of position, the CEO's professional background, the state in

which the CAH resides, the main industry within the community, the length of the interview, and whether the CAH was part of a larger healthcare system.

Table 1 *Informant Demographics*

CEO ID	CAH ID	Age	Gender	Ethnicity	1st time CEO	CEO Background	State	Main industry	Length of Interview	CAH Independent
CEO001	CAH001	66	Female	White	Yes	Nursing	IN	Manufacturing, healthcare	0:47:16	Yes
CEO002	CAH002	68	Male	White	No	Business	CO	Healthcare, retail	0:53:48	No
CEO003	CAH003	54	Female	White	Yes	Operations	CO	Healthcare, retail	0:25:50	Yes
CEO004	CAH001	54	Female	White	Yes	Nursing	IN	Manufacturing, healthcare	0:42:47	No
CEO005	CAH004	65	Male	White	No	Business	AZ	Healthcare, retail	0:37:04	Yes
CEO006	CAH005	60	Female	White	Yes	Lab tech	MI	Healthcare, education	0:23:23	No
CEO007	CAH006	62	Female	White	Yes	Elementary education	MN	Healthcare, food services	1:02:19	Yes
CEO008	CAH007	60	Male	White	No	Phlebotomy, operations	NM	Education, healthcare, mining	0:45:51	Yes
CEO009	CAH008	60	Male	White	No	Operations	CO	Healthcare, retail	0:51:44	Yes
CEO010	CAH009	35	Female	White	Yes	Nursing with an MBA	MN	Management, administration	0:36:01	Yes
CEO011	CAH010	69	Male	White	No	Law	AZ	Healthcare, retail	0:56:39	Yes
CEO012	CAH011	48	Male	White	Yes	Consulting	WI	Shipyard, healthcare	0:30:19	Yes
CEO013	CAH012	63	Male	White	Yes	MBA/Accounting	SD	Education, Healthcare	1:03:46	Yes
CEO014	CAH013	48	Female	White	Yes	Nursing	AK	Lodging & food services	0:52:50	Yes
CEO015	CAH014	45	Female	White	Yes	Nursing, MBA	IN	Healthcare and manufacturing	0:53:50	Yes
CEO016	CAH015	64	Female	White	Yes	Finance, consulting	AZ	Healthcare, construction	0:59:05	Yes
CEO017	CAH016	53	Female	White	Yes	Finance, revenue cycle management	WA	Healthcare, construction	0:31:26	Yes
CEO018	CAH017	76	Female	White	Yes	Nursing	IL	Retail, healthcare	0:51:43	Yes
CEO019	CAH018	61	Female	White	Yes	Business, operations	CO	Education, healthcare	0:42:23	Yes
CEO020	CAH019	37	Male	White	Yes	Administration	IA	Education, casino	0:49:10	No

Data Analysis

This study centered around conducting an in-depth examination of the relationship that exists between the Chief Executive Officers and the Critical Access Hospitals (CAHs) they oversee, particularly within extreme contexts. The fundamental unit of analysis within this research, therefore, was each CEO-CAH pairing, with an emphasis on exploring the intricacies and unique dynamics within this unit of interest. The interviews resulted in twenty CEO-CAH pairs. Two CEOs were from the same CAH at different points in time; the rest involved unique CAHs.

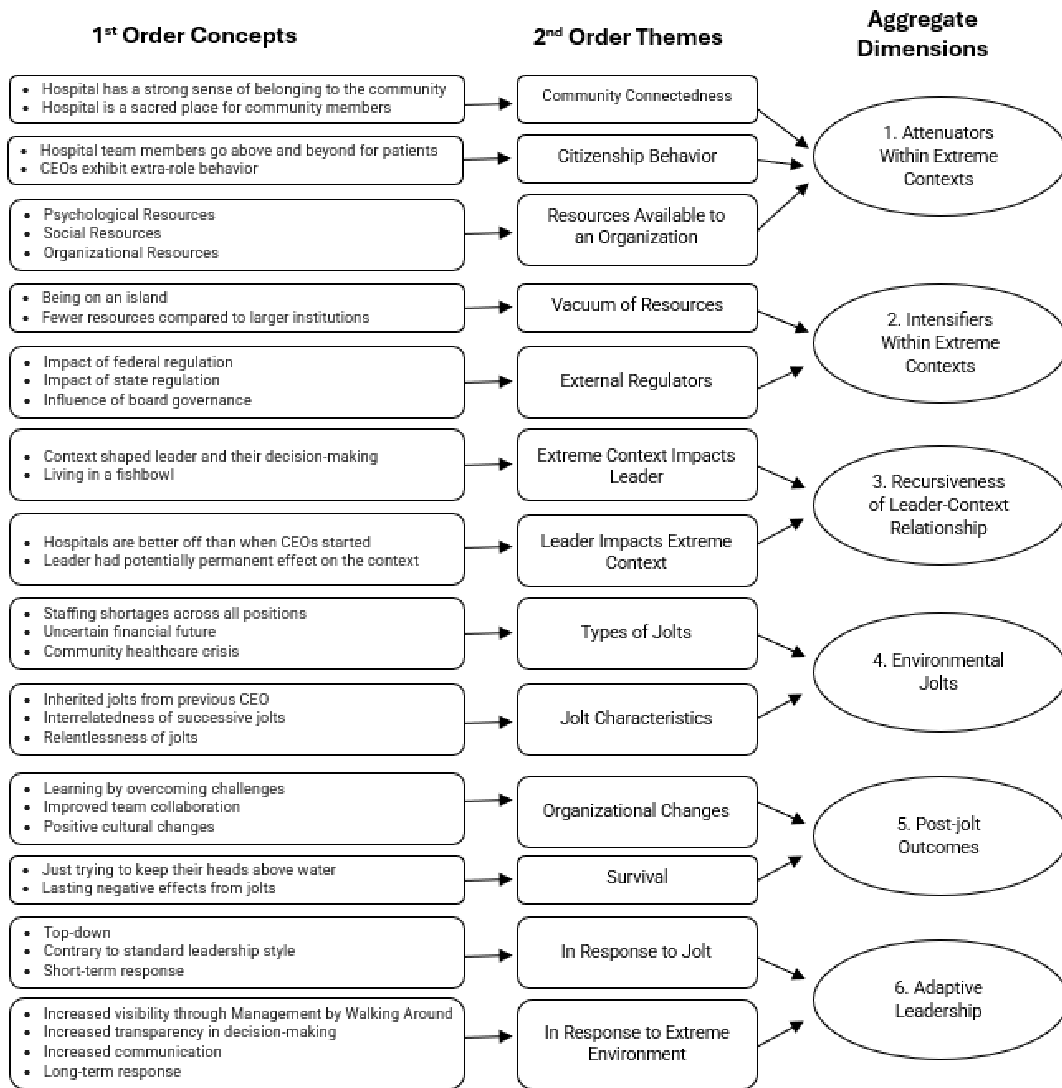
The interviews and subsequent transcripts of the discussions were evaluated on the micro, meso, and macro levels, which are the hospital level, state level, and national level. Thematic coding was used as it pairs well with this approach. After conducting the interviews, the transcripts were coded in three distinct steps. To begin, open coding was performed on the raw interview data. Next, axial coding was used to explore the relationships between the first-order concepts and group them thematically. The third-order analysis involved further abstracting to elucidate thematic trends and build a model, grounded in the data, regarding leadership in extreme contexts, particularly concerning environmental jolts (Van Manen, 2016).

The research was rounded out with publicly available hospital metrics from sources like CMS and private websites such as ProPublica, which includes financial and quality metrics for medical facilities. Press releases and resumes of the hospital CEOs were also reviewed for any applicable information, which were located via a Google search and on LinkedIn. The possibility of extending the interviews to other members of

the top management team to augment the case study was considered but found unnecessary, as the study had reached theoretical saturation with the CEO interviews themselves.

The complete data structure, which summarizes first-order concepts, second-order themes, and aggregate dimensions derived from this study, can be found in Figure 3. This data structure serves as the framework by which the updated typology of adaptive leadership in extreme contexts was built. The first two dimensions of this grounded theory research center around the attenuators and intensifiers within Hannah et al.'s 2009 model. The third reflects on the recursive nature of the context-leader relationship. The fourth and fifth dimensions explore environmental jolts and their related outcomes, while the sixth and final dimension concentrates on the concept of adaptive leadership. The findings and grounded model based on the data structure are presented in the next chapter.

Figure 3 *Data Structure*



Chapter Four: Findings

An inductive approach was employed to explore the research question using grounded theory methodology. This was utilized to facilitate theoretical advancement through the exploration of existing typologies and theorized relationships within the conceptual model. Grounded theory provided a means to inductively identify relevant core associations and constructs (Gioia, Corley, & Hamilton, 2013). Using this approach, the themes were aggregated into the six identifiable dimensions outlined in this chapter. Supplemental exemplary quotes are available in Appendix B.

Attenuators (Dimension 1 in Figure 3)

Based on the informant interviews, two primary attenuators were identified within the context of operating a rural hospital, namely community connectedness and citizenship behavior. These constitute the first aggregate dimension of the results—attenuators with the extreme context typology. These second-order themes were derived from questions pertaining to resources that make it easier to operate a hospital in a rural community. Support was also found for the assertion made by Hannah et al. (2009) that psychological, social, and organizational resources act as attenuators in extreme contexts.

Community Connectedness

The notion of community connectedness was by far the leading attenuator isolated within the second-order thematic coding. Even when the line of questioning opened with

an inquiry about the challenges of operating in a rural environment, the informants routinely pivoted and began the conversation with comments about the positives within the community. At its core, the construct of community identity can be broken down into two first-order concepts: one in which the hospital and its employees feel a strong sense of belonging to the community, and one in which the hospital is a place that the community members themselves cherish and protect. It is within this reciprocity that the construct of community connectedness exists. CEO017 described it best when they said, "I think the biggest advantage of being a rural hospital is that connection to your community or your community's connection to you." These two first-order concepts are differentiated below.

Strong Sense of Connection to the Community. CEOs identified that within rural communities, the hospital becomes the "epicenter of healthcare" (CEO008). Unlike in urban areas, there are few outside resources to supplement or extend healthcare, so these rural facilities must "take care of this whole show" (CEO001). In doing so, they become integrated within the overall health of the entire community: "When you see people that are enjoying life, you know that would be impossible if there wasn't a good healthcare system. Because having a baby, raising small families, schools, things like that, it takes a central healthcare system to make sure that those things are happening, and so we play this really pivotal role in a healthy community" (CEO019).

This concept extended to the hospital employees and their personal connection to the community members. CEO013 stated:

> They have a connection with this community. They are pretty much all, one way or another, married to the community as we call it, whether they're married to a farm or whether they're married to someone else. So, it's that community sense. It's the thought that we're taking care of our own. And that's what we want. When you know who's walking through the front door and you can talk to them by their first name, and they bring in that comfort level.

This was reiterated by CEO002. "I genuinely cared for the facility, but more importantly, the community that I married into" (CEO002).

This concept of knowing their "patients at a deeper level" (CEO020) was seen frequently. As CEO003 stated, "We see everybody at the Walmart grocery stores, and so we tend to know a lot of people. Patients aren't treated as a number. That's probably the greatest strength of what the rural hospitals bring to the table."

In turn, the hospitals often include the community, as the primary stakeholders, in key decision-making. "We recently did some strategic planning. And we really heavily included our communities in that because we're the only health care facility in the county" (CEO010). Thus, the germ of the reciprocal relationship between the hospital and the community begins.

A Sacred Place Worth Protecting. A pervasive concept was that the communities broadly viewed the hospital as a valuable resource and actively engaged in protecting it. "The community wants the hospital to be successful. So, you have support from key leaders in your community that seem to care about your success" (CEO005). As CEO010 described, community members have "a certain level of investment in the

organization." Per CEO009, "We've been very fortunate here in the last couple of years that this community has embraced us. They understand the importance of a hospital."

A prominent physician in one of the communities illustrated this to a CEO by stating, "I can't live in a community that doesn't have a hospital," and "he wasn't speaking from a professional perspective. It was a personal perspective. Nobody wants to live 45 minutes from their closest ER. We've had tremendous financial results resulting from that" (CEO009). Even in difficult economic times, the communities continue to support their local hospital. "Notwithstanding economic challenges it has faced in recent decades, there nonetheless remains a real strong sense of community" (CEO011).

CEO012 identified the notion of sacredness. "I definitely think [our biggest resource is] just the connection to the community. For folks who have lived here for years, they have babies who were born here and loved ones who have died here. And so it's kind of a sacred, sacred place for a lot of people in our community." CEO004 reiterated that almost verbatim and spoke of the mutual relationship that exists between the hospital and the community it serves: "I think [the biggest resource] would be community. I would say it's community support, but I feel like that's because of the quality and patient satisfaction that we deliver to the community."

Citizenship Behavior

Citizenship behavior was the second most prevalent second-order theme identified in dimension one. Informants reported that their team members routinely go above and beyond for their patients, as do CEOs for their subordinates and patients.

Among the Team. It was noted throughout the interviews that employees of rural hospitals consistently operated outside of the scope of their job description to take care of patients. CEO018 said, “My one doc, who was managing my entire COVID direction, moved into her office with a cot and slept on campus with my nursing team 24/7 because I had no one else to take care of my COVID patients.” Another CEO spoke of trying to get oxygen for newborns in her community since obtaining the oxygen and associated equipment is often too expensive for patients to afford:

> One of the most heartbreaking things for me is something like oxygen. The world might believe that if there's a baby born here that needs oxygen when they leave here, that it would be a given that they could have it. That's not true. As a group of employees, we raise about $15,000 a year into a program that we call Pay It Forward for when we have a person who can't fill a prescription or we have a person who can't get any oxygen. (CEO0019)

Likewise, CEO013 described obtaining extra clothes for patients in need:

> Because every time a patient comes in, you're cutting off their shirt, you're cutting off their pants, we help them every time they walk out of here because we know that they probably don't have another set. People don't realize just what poverty is until they work down here.

This was further illustrated by CEO002, who reflected, “We nurses, or even myself as the chief nursing officer or administrator, will just take $10 and just give it to the driver.”

The stories of selflessness demonstrated by rural healthcare workers were pervasive and included multiple examples of nurses caring for pets so a patient could be seen: “[She] actually took care of a family member's pet when they came in, and they had the pet in the car. They went above and beyond to make sure that that pet was taken care of” (CEO006). Another pet-related example from CEO014 was as follows:

> I remember once we had a couple come in that had never seen a tick before. We’re just trying to educate them. And then the next thing I know, they're like, ‘Can you guys please look over our dog?’ You don't see that happening in a big facility. Here, no problem. You're just giving that extra little bit and making them feel safe and comfortable and make sure they're taken care of, and their little dog was, too.

Extra Role Behavior from CEO. The CEOs also appear to go the extra mile to support their patients and employees. CEO006 shared, “They can call me in the middle of the night, and I'll come and sit with a difficult patient. I'm not a nurse, but they know that I'm there, and I can pick up and do whatever they need me to do.” CEO013 described their effort during COVID:

> I'm wearing a PAPR. I'm sanitizing these people. We had no idea what the contagious rate was. I do that for 47 straight days. I spent a minimum of 16 hours [per day], if not more, here at the hospital. I was wiping down patients or wiping down my staff coming out of negative air pressure [rooms].

These demonstrate that the CEOs also deviate beyond their given title for the betterment of the collective. “You know, I'm the CEO, but I'm also the

Privacy Officer. I'm also IT some days, I'm marketing some days, I'm HR some days" (CEO020). As CEO014 put it, "What's happened in the cafeteria? The cook didn't show up or something? Then we're down there cooking for the patients, and we're doing laundry. We're willing to do whatever it takes to make sure that patients are taken care of."

Dimensions of Extreme Contexts

For clarifying purposes, it is important to tie the aforementioned attenuators to the Hannah et al. (2009) typology, specifically the five dimensions of extreme contexts listed as primary influences on a context's level of extremity (Figure 2). Hannah et al. (2009) argue that there are additional factors that are not a requirement for an extreme context, but nonetheless can serve to partially attenuate or intensify the level of extremity. Below are examples of this association, including how community connectedness and citizenship behavior integrate within these dimensions.

Location in time. Within this dimension of extreme contexts, as postulated by Hannah et al. (2009), lie the temporal ordering of extreme events and associated preparation and recovery. The authors argue that effective leaders can impact the level of extremity by overseeing preparedness efforts, such as planning and training. Additionally, effective leaders can manage the transition from stable to extreme contexts and back again, rebalancing the organization from a cognitive and emotional standpoint, as well as from an organizational resource perspective. Specifically, Hannah et al. (2009) mention that social factors like cohesion, commitment, and organizational identification may act as mitigators to reduce stress and anxiety during a transition to an unstable time.

Effectively managing this allows for the organization to continue to function even in difficult times and effectively reduce the level of extremity. Furthermore, during the recovery period, leaders can manipulate resources to foster trust and reduce anxiety, thereby helping the organization to recover. As it pertains to the research within this paper, the constructs of community connectedness and citizenship behavior impact this dimension, as they closely align with some of the attenuators that Hannah et al. (2009) refer to such as social cohesion and organizational identity. It is important to note that these factors not only change an individual's perception of an extreme event but also impact an individual's capacity to manage it, which has positive downstream ramifications for performance.

Magnitude and probability. Hannah et al. (2009) combine the dimensions of magnitude and probability within their paper. They argue that the level of extremity is primarily a function of magnitude or potential magnitude. For instance, if death were a possibility, the level of extremity would be much higher than one that posed little or no bodily harm. It is during an extreme event that leaders can utilize social, psychological, and organizational resources to help stave off the terror and stress their subordinates are feeling. Doing so reduces the magnitude of the extremity and helps mitigate paralysis, prompting appropriate action and reactions among their teams. Similarly, citizenship behavior and community connectedness likely mitigate the psychological impact of an extreme event due to the close social and psychological ties that exist within the hospital and the community at large.

Proximity. Hannah et al. (2009) contend that proximity is the fourth dimension affecting the level of extremity, and that it manifests in the form of physical, psychological, or social proximity. The authors assert that psycho-social distance among organizational leaders and members may impact behavior. They argue that a leader can influence their followers by decreasing the social and physical distance between themselves and their teams. The authors posit that doing so can lead to more trust and increased team cohesion, which influences the followers to act in a coordinated manner and more readily listen to a leader's directives. These are critical aspects that can lower the level of extremity. Leaders in rural hospitals can leverage citizenship behavior to build trust and foster unit effectiveness, thereby lessening the level of extremity. Consideration was made to include extra role behaviors from the CEO as an adaptive leadership quality. Due to Hannah et al. (2009) explicitly mentioning a form of CEO ingratiation in this dimension, however, it was regarded as an attenuator for the purposes of this research.

Form of threat. The last dimension of extremity mentioned by Hannah et al. (2009) relates to the form of the threat, as leaders and followers will face a wide range of reactions depending on the type of threat -- be it physical, psychological, or material. Other than surmising that the type of threat will elicit a variety of responses in individuals and organizations, the authors do not go into much depth on this last dimension.

Resources Available to the Organization

When informants were asked about attenuators within the extreme context of a rural hospital, support was found for many of the social, psychological, and

organizational resources that Hannah et al. speculate on in their 2009 article on extreme contexts. None of these resources were individually prevalent enough to warrant first-level concept or second-level thematic coding, but collectively, they signal that the construct of social, psychological, and organizational resources as attenuators within extreme contexts was supported.

Psychological, Social, and Organizational Resources. In concert with the Hannah et al. (2009) article, informants spoke of resources such as resilience as an exemplar psychological resource. CEO008 said that working in a rural hospital requires employees to "have grit, to have resilience." Informants also spoke of intangible organizational resources such as adaptability. "I think when you're working in a rural health facility, you learn to adapt, you learn to do without" (CEO006). As it pertains to social resources, in line with Hannah et al. (2009), informants spoke of leveraging a multi-agency network. "We do get some support from the [larger healthcare] system, whether it is financial, or whatever that is. Expertise and the sense of compliance" (CEO001). Generally, these findings support the speculation by Hannah et al. (2009) that psychological, social, and organizational resources can act as attenuators within extreme contexts.

Intensifiers (Dimension 2 in Figure 3)

In contrast to the attenuators identified in the first dimension, two main intensifiers were identified within the rural health context that make up the second aggregate dimension. These second-order themes pertain to the resource desert in which

the hospitals operate and the external regulators that impact these facilities. Responses were prompted by questions surrounding the challenges of operating in a rural context.

Vacuum of Resources

A predominant theme throughout the informant interviews was physical isolation coupled with a subsequent vacuum of resources in all aspects of operations. This was particularly evident when comparing rural hospitals to larger, urban or suburban facilities.

Being on an Island. CEO0013 stated, "Almost everybody out here, including the providers, feels as if they're on an island. We just don't have those immediate resources to take care of some of those more expansive cases." As expressed by CEO008, "distance is a big concern." This was reiterated by CEO010, who stated, "When we're talking rural, this is truly rural. This is the epitome of rural. The nearest tertiary hospital is over an hour away. So, geographically, getting resources, those types of things [is difficult]."

Lacks the Resources of Larger Institutions. The CEOs identified that this isolation leads to a lack of resources within the system. It was noted that these can be physical resources but are often social or strategic resources, as well. "I think, first and foremost, rural hospitals, just due to sometimes lack of resources and lack of other support, tend to put us in kind of a precarious situation from time to time. We just don't have what urban facilities have" (CEO004). CEO017 compared their experience of working in an urban hospital to their current position as CEO of a rural hospital, stating that previously, "I would have had resources to tap into [for situations] I've never experienced in my career. I'm kind of making it up as we go here to some degree. We have some resources, but it's just not the same." CEO009 confirmed this:

> A lot of times these small critical access... and this is my first critical access... I never really appreciated the difference between your typical hospitals and critical access hospitals. But these bigger tertiary facilities just don't get it. We don't have access to all of these things that you need to properly take care of these problem patients.

It was also noted that many patients themselves lacked resources within these communities. “Our patients, sometimes when they lack resources or when they need a higher level of care and those types of things, they don't have the wherewithal to be able to get that care because it's so far away” (CEO004).

External Regulators

Another second-order theme was the notion of governmental influences and how changing federal and state regulations, as well as board oversight, impact rural hospitals. Collectively and individually, these regulatory bodies often had a profound impact on the Critical Access Hospitals.

Impact of Federal Regulation. At the federal level, numerous CEOs referred to specific legislation. The Omnibus Budget Reconciliation Act and the Medicare Modernization Act were explicitly mentioned (CEO011, CEO015), as was The Balanced Budget Act of 1997 (CEO002, CEO003):

> I think some docs are financially set and had enough of it, the regulatory oversight and all that. I think really what's been building over the decades. In 1997, the Balanced Budget Amendment was passed in Congress, which did two things. It increased taxes and cut expenses, and it was successful. Clinton was the president.

> Gingrich was the Speaker of the House that cobbled together a pretty good deal at the 30,000-foot level, but one of the provisions of that was to freeze federal funding for residency slots at the existing levels in 1997. So that's a problem. I mean, maybe the population of the country has doubled since 1997? Maybe the country is aging much more since 1997? Maybe there's greater demand on health care services since 1997? We're not providing any more doctors to provide that service. So that's a big issue. (CEO003)

Other federal examples include immigration concerns, which impede the hiring of qualified international candidates:

> I'll look at a political problem. So, you know, of course, one creative thing we brought in lab techs because we can't find lab tech stateside. So, we brought in two from Nepal and, I believe, three from the Philippines. So, the problem there is, the immigration problem. Of course, you can't have 2 million people coming across the border from Mexico every year, but you've got to increase the limits. We need skilled people. We need a lot of skilled people in the world, and we've got no way to bring them in. (CEO003)

Impact of State Regulation. Informants also referred to changing reimbursement policies at both the federal and state levels. CEO015 stated, "Some of our costs get reimbursed by Medicare and Medicaid, but whenever sequestration[1] went into place, it had a 2% reduction. So, as soon as sequestration came in, we've been behind the ball, and we've got a 1% loss." This CEO went on to reference the need for the Medicare

[1] Across-the-board governmental budget cuts, impacting reimbursement rates.

Modernization Act, stating that their reimbursement rates in their state had not been updated in 30 years. “For an ER visit, we get paid $31. Can you imagine how much it costs to see a Medicaid patient? I think funding is really the biggest thing and something that keeps getting overlooked” (CEO015). CEO002 spoke of a similar experience:

> The shrinking reimbursement impacted all of us. It's your Medicare, it is your Medicaid, it’s your decrease in commercial insurance and being in a rural area. I can remember 10-15 years ago that I was getting maybe 18 cents on the dollar for a patient that was on Medicaid. And when I left, we were lucky if we were getting eight cents on the dollar.

Even further, CEO004 stated, “CMS tells me to see me to see a minimum number of patients, or I pay money back [to them] on my cost report.”

Examples of governmental influence also extended to staffing. For instance, CEO010 spoke of state nursing ratio mandates, which stipulate the specific number of nurses a hospital is required to staff per patient: “With some of the recent legislation that has come through [my state], for example, there was recently some proposals to create legislation that organizations our size just simply cannot accommodate. So, this one specifically was the nurse staffing ratio” (CEO010).

Influence of Board Governance. At the local level, board oversight became a highlighted second-order theme. While it was occasionally framed as a positive resource, it was more often couched as an intensifier, described by CEO011 as “probably the most injurious or intractable thing I've ever lived through.” CEO015 reflected on a recent interaction with their board:

> [My chief medical officer] called every single board member and said we cannot do this if you're going to micromanage [our CEO]. We know what we're doing. We have a multidisciplinary team. We're making good, solid decisions. If you're going to micromanage, we're going to fail. So back off, leave [the CEO] alone. He called them all and said back off. Following that, our board members had our backs 100% on everything we did. They did not question what we did any longer.

In summary, the informants routinely referred to external regulators at the micro, meso, and macro levels as intensifiers within the rural context. This includes federal, state, and local influences, all of which can intensify an already extreme environment.

Recursiveness of Context-Leader Relationship (Dimension 3 in Figure 3)

In exploring the relationship between context and leadership in extreme contexts, three second-order themes became evident when asking the informants about their experiences leading a rural hospital. Many iterations of related questions were asked in order to exhaustively explore this construct. As a result, it became apparent that context impacted the leader, the leader impacted the context, and that a recursiveness existed within the leader-context relationship. These second-order themes encompass the third aggregate dimension within this research.

Context Impacts Leader

Universally, the CEOs said they were directly shaped by the extreme context in which they operate. Said CEO002, “I think [the context] did help cultivate and helped shape me and who I am.” They went on to say, “Definitely, culture and surroundings help shape you. How can it not, you know? It's going to have an impact on you.” CEO005

agreed, “Oh, absolutely [the context changed me]. How can it not? Yeah.” CEO001 also agreed, saying, “I think we have to adapt; that's how you grow, right? Usually, change is progress. You have to be very flexible and adaptable to survive. Not always easy.”

Context Shapes Leader. CEO020 indicated they are a “much more collaborative leader now. I lead more with questions than I do with directives. So, I've really tried to adapt my normal style to help build consensus so people understand the why.” CEO008 corroborated a change in leadership style, stating:

> The environment absolutely shapes you. You have to deal with the hand that you're dealt, and so in a rural environment, in particular, you don't have as many resources, maybe not the level of talent that you might have in a large community. So, if you want to do a project, either you have to go find that elsewhere or use the people you have locally and coach them, push them along. You have to adapt.

The context often had a profound personal impact on the informant. CEO002 illustrated a situation where their choices impacted them so negatively that they quit:

> It was almost like you're playing God, that you're making the determination on who gets to live and who gets to die or who's going to get better quality care and who's not going to get the quality of care because they're older and sicker. Because they're younger. Just a combination of just lots of things, finally just said ‘enough is enough’.

Others described the relationship as a means to grow, saying that being in this context “shaped me” and “it allowed me to come to the top. It allowed me to blossom and be my own person” (CEO013).

Living in a Fishbowl. Many CEOs also expressed the pressure of living in an extreme context, what one CEO called the "fishbowl effect," or being under near-constant public scrutiny. "You're working in a fishbowl. Everybody's in your business. Nobody knew me when I worked for XXX in [a bigger city]. Nobody cared that I was the CEO of that very large hospital. They just didn't care." (CEO17). In reference to the rural context, CEO005 stated:

> I think that in rural settings, I think being the CEO means there's less distance between you and the employees, the patients, and the community, I would say, especially the community. When I talk with colleagues who have worked in urban settings, they don't have to worry about going to the restaurant or going into Walmart and running into people, former employees, or patients. At least there's less of a likelihood.

CEO014 spoke of this phenomenon as well:

> It definitely makes you a different a different kind of leader. And I think a lot about things before I go out and do them because I'm like, oh, I don't want to be on that paper tomorrow. We're going to go down to one of the restaurants and have some drinks, and I'm like, I don't know if I can do this. Am I allowed to do things like that?

Leader Impacts Context

Every informant except one acknowledged that they personally had a long-term, even permanent, effect on their environment. Many spoke of improvements they made and of leaving a legacy.

Hospital is Better Off. This was illustrated by CEO003, who said:

> I effectuated change in a lot of hospitals. You work with and through the people you've got. You really have to be a convener of sorts and set the goal, set the plan and the direction, and get the support of the board and community, and then move forward. (CEO003)

Informants spoke of building relationships (CEO017) and expanding services to the community: “This facility was so rundown when I got here, it was horrible. And shortly after I got here, we got an $8 million grant to do an expansion, and we added on the emergency department and did some work” (CEO015). Another informant, CEO019, stated that they “absolutely” had a long-term impact on the context:

> I think about the number of services that were here when I came, and I think about, even if I walked away today, how many more services there are today. Health care got better, whatever better means, but the measurable things to me are going to be that increase in the number of services producing critical specialty services. A huge one is increasing our trauma level and bringing increased emergency transportation services. With the medical air helicopter, having all the board-certified doctors here. I mean, those are things that seem like a given now, but you know, they weren't given 10 or 12 years ago.

Leader had a Permanent Effect. Several CEOs spoke of leaving a “legacy” (CEO002), and many reflected on saving their hospitals from imminent closure. “What do you think? A 60-day closure plan and the hospital still there [years later]? So, I think that's pretty good” (CEO009). CEO011 reflected, “I don't say it as some sort of macho,

delusional, self-importance thing, but yeah, I think the hospital could have closed. So yeah, yes." Likewise, CEO003 indicated that they are "proud of the fact that I've left each hospital in much, much better standing than when I entered that community."

Mutual Effect

Nearly every CEO referenced a reciprocal relationship, either implicitly or explicitly. "I would say [a reciprocal relationship exists]. If you see something changing in your environment, I think you have to try to work through that, work with it, and be part of that change" (CEO006). Said CEO003, "I've provided as much benefit to the communities I've moved to, as those communities have provided to me." Finally, CEO001 aptly said, "I think it's a two-way street. I think I adapt to the environment, and the environment adapts to your leadership. So, hopefully, if it's good leadership, positive, then that environment will be positive too, so it's a two-way street" (CEO001). All in all, there was resounding support for a recursive relationship within the context-leader relationship.

Environmental Jolts (Dimension 4 in Figure 3)

In exploring environmental jolts, three second-order themes were evident, leading to an aggregate fourth dimension surrounding jolt characteristics. Informants were asked to reflect on any jolts they had experienced and how they led their hospitals through them. They were asked about their decision-making processes during these events and if their leadership style changed in response to the jolt. This line of questioning resulted in second-order themes pertaining to the types of jolts, the relatedness of the jolts, and the frequency of the jolts.

Types of Jolts

Numerous jolts were identified by the informants. Examples included fraud, impending hospital closure, a class action lawsuit, workforce reductions, weather, sexual harassment charges, sentinel events with prominent patients, the suicide of multiple team members, poor management, leadership changes, and more.

Notable environmental jolts included one described by CEO009, who led their hospital through the destruction caused by a tornado in the middle of a hurricane, the cleanup of which lasted weeks. Said CEO009:

> We had to evacuate the hospital during the hurricane; it's crazy. And that was interesting in and of itself, right? But then, day plus one, it's still raining, and your roof got peeled back, and there was water everywhere in the facility, and, you know, how do we get this thing reopened so we don't lose our accreditation?

Another significant jolt occurred when the hospital's physician group staged a coup and subsequently built a rival hospital nearby. "It all culminated in the medical staff revolting. There was a vote of no confidence in me. And then the board told them to go pound sand, and [the physicians] decided they're going to build the hospital [nearby]" (CEO005).

Staffing Shortages. Despite the breadth of examples given by informants, staffing shortages were overwhelmingly the number one jolt facing rural hospitals and the top first-order concept identified in this dimension. Every CEO identified it as a jolt and stated that it was "difficult to recruit" to rural communities (CEO011). CEO003 succinctly stated, "I think across all critical access hospitals, of course, right the top three

challenges are labor, labor, labor." Conversations on shortages generally centered on nursing staffing but also included physician and ancillary services staffing. Said CEO006, "In rural health, it's difficult to find physicians. We have issues with just about any type of staffing, lab, radiology, respiratory therapy, nursing. They're all they're all difficult to recruit into." Further, CEO007 said, "We still have recruiting problems. We still have 99 positions open." As CEO003 somewhat humorously said, "There is no shortage of [only] one position. Do you know what that is? Hospital administrator. Cooks, housekeepers, billers - they're irreplaceable. But not me. People are lining up for my job."

Uncertain Financial Future. In examining environmental jolts, an uncertain financial future was another pronounced first-order concept that became evident during the interview and coding process. It was a close second to staffing concerns. CEO003 expounded on their previous quote regarding labor, saying, "I think across all critical access hospitals, of course, right now, its top three challenges are labor, labor, labor. And probably the next three are finance, finance, finance." The primary source of uncertainty was related to the shrinking reimbursements addressed in dimension two under external regulators. CEO0012 identified another issue that impacts finances, namely changing payor mixes. As more people transition to Medicare from commercial payors, the reimbursement received for services changes significantly. They stated that:

> I will say that over the last 18 months, even more so in the last four months, what percentage of our care is now given to Medicare patients, and what that does to our reimbursement from a budgeting standpoint. So, for instance, in the first six months of this fiscal year, our volumes are strong, and more people are coming to

> us for care than ever before. And yet our reimbursement is coming in two and a half percent under budget. I'm starting to see this as a jolt, and it's not your traditional one. But it is one that's going to cause us to fundamentally shift our mindset from growth because it doesn't matter how many more patients we see to efficiency and productivity and those things that are that we're going to have to do differently over the next decade to kind of get through this baby boomer wave. (CEO0012)

CEO006 explained, “Your bottom line is impacted because you have a cycle where you need capital, and you haven't made enough money during the years to get those replaced.” This leads to additional jolts, such as the inability to pay bills. “It was a hell of a jolt. Had the hospital bounce payroll. I had a reporter in my office the next day. I was on the phone with the Secretary of Health and Hospitals, followed by my state representative” (CEO009). Even small jolts like a blizzard can have a big impact on finances. “If your staff can't get here, we can't provide the care. But also, on the flip side of that, you know, I pull a revenue report the next day, and there's not much there” (CEO004).

Onerous cost reporting also adds a layer of complexity and uncertainty. CEO007 illustrated this:

> We believe that there was a mistake on our cost reports. And we're in the process of working with Medicare about a potential payback. And that payback could be a big knock in the head. In addition to all the things financially that we're dealing

with, and so on the one hand, CMS is being very slow and responsiveness, and so we're… You know, it is potentially $20 million.

The COVID-19 Pandemic. The pandemic was routinely mentioned by nearly every informant but rarely in any depth. CEOs recognized the significance of its impact, describing it as “huge” (CEO018) and an “obvious” jolt (CEO015). Their responses, however, predominately focused on other jolts. An example of how most CEOs referred to COVID merely in passing was from CEO007, “I think COVID, probably [was a jolt], but we have another one brewing right now.” CEO019 repeated the same sentiment when the topic came up, “So COVID, of course, was one, but let me back up to one that may or may not have been completely a jolt, but it was certainly very close.”

Jolt Characteristics

Three first-order concepts became evident in evaluating the data within this dimension as they pertain to jolt characteristics. Specifically, it was found that jolts tended to be related to both prior administrators and to each other, with one significant jolt often leading to successive jolts. When that happened, the jolts had the propensity to occur at a relentless pace.

Inherited Jolts. First, it appears that several CEOs inherited jolts related to prior administrators. CEO008 described the environment they walked into: “In the eight years before I arrived, the hospital had lost $47 million. In eight years.” CEO007 recalled finding out their predecessor had been filling out the cost report incorrectly, an error that will potentially cost the hospital twenty million dollars. “We're finding out that the CEO was preparing the cost report himself. So, the first year [the new consultant] did it, they

said, ‘Well… we see something.’” Likewise, CEO009 had to “immediately terminate a high-profile service line because we found out we were dropping fraudulent bills due to the actions of a third party. We had to self-report and pay back $3 million. That was in my third week here.”

Relatedness of Jolts. Secondly, it became evident that jolts tended to be related and successive in nature. It was common for a major jolt to spin off additional jolts, big and small. The COVID-19 pandemic was a prime example of this phenomenon. When it came up in the interviews, the initial jolt of the pandemic was generally related to a jolt in staffing, which in turn led to an ensuing financial jolt. In some cases, this further led to the closing of significant service lines.

In some instances, the initial jolt related to the pandemic spun off three additional consecutive jolts. CEO003 demonstrated this pattern by outlining the downstream ramifications of this scenario: “For the pandemic, our baseline was probably five nurse travelers, and we're still hovering around 12. Right now, it's still too high. The cost has to come down” (CEO003). In this example, the jolt of the pandemic led to a nursing shortage, which led to financial strain. Another example was from CEO016, who stated, "the COVID backlash impacted us from a cash perspective because it was really in the years after COVID where we saw a much greater staffing shortage than we did during 2020.” According to CEO016, the financial fallout from the nursing shortages caused by COVID was enormous. “Prior to COVID, our organization would spend on contract labor about $800,000 a year. During the COVID years, we jumped up to over $4 million. What happened is really every position became a short supply.”

Another example of this relates to a changing payor mix, which led to financial strain and the closure of key service lines within the community. “I had to close our OBGYN and nursing home because of a huge shift in payor source to very much heavily Medicaid population. Super painful to know that your community needs a service, and you can't provide it” (CEO018).

Relentlessness of Jolts. Another concept identified within the jolt line of questioning pertains to the frequency with which jolts occur. Even when a CEO responded that they did not have many jolts, they routinely described jolt after jolt. CEO011 stated that, “They're often mini jolts, and then there are some that are more seismic and high-impact than others.” CEO012 identified this phenomenon when discussing a recent presentation they gave to their staff.

> I just gave a presentation last week to all of our employees where we talked about kind of current challenges that we're facing. In the beginning of that presentation, we talked about the jolts that have occurred over the last 20 years and how our hospitals responded to those. I can tell you when we came up with the list, they were pretty sporadic at the beginning, early 2000s. Opening of a new hospital, you know, national recession in 2007, 2008, and then pandemic. But now, I've listed three within the last four years.

CEO003 summarized the relentless nature of jolts best: "Simply stated, you can phrase it as Whack-a-Mole."

Post-jolt Outcomes (Dimension 5 in Figure 3)

As an extension to the prior line of questioning about jolts, informants were asked if their organizations were better off or worse off after a jolt, how that manifested itself, and whether that answer depended on the type of jolt. Most CEOs conveyed that if their organization survived the jolt, it was better off afterward. Four CEOs stated that they were worse off after the jolt. This combined dialog led to two second-order themes within the fifth aggregate dimension surrounding post-jolt outcomes: organizational changes and survival.

Organizational Changes

All the CEOs who spoke of positive post-jolt outcomes reflected on at least one of three key organizational changes. Some spoke of all three. These include learning and growth, increased collaboration, and positive changes within hospital culture.

Learning and Growth. CEO001 captured this when they said, "I would say that we all say we learn from our mistakes, but that's how we grow, right? And I think if we don't make those changes, that's where it leads to failure in your organization." CEO018 said that they were "so much better" after the jolt, that it was during the jolt that the team was able to "realize what a tremendous skill they had," and that during the jolt, their employees "learned how to be a hospital." CEO007 also expressed that same sentiment by stating, "We're better; it made us better. Kind of pushed us in to be able to try things that we weren't able to do before." Jolts also allowed the hospitals to prepare for future jolts. "Fast forward, we need to think about whatever the next incident may be. I've been a little bit more prepared" (CEO001). CEO0017 shared:

> I think we've done a good job of everything for all the different jolts that have happened here. I think organizationally, we've done a good job of regrouping after the fact and saying, 'what were the learnings?' 'How could we have either prevented this from happening or responded differently or better?' I think that's a critical step.

Improved Team Collaboration. The second organizational change that presented itself as a first-order concept was increased team collaboration during a jolt. CEO020 described that, during jolts, a team must, "really put your communication in overdrive." CEO004 spoke of a long-term shift in collaboration that occurred as a result of COVID-19. "We continue to have a COVID huddle every day at 8:30am, and we, in just five minutes, can solve different problems, issues, whatever it might be. It brought our team closer together; it really has." CEO009 discussed how a lack of teamwork can harm the community during a jolt. "You find that the people in the organization pull together. They realize that if they don't communicate, they realize the significant potential negative risk to their lives, to the communities they live in."

Positive Cultural Change. The final component of this second-order theme was a shift in hospital culture during a jolt. "It made us more resilient. [The jolts] made us stand up and maybe be bold" (CEO002). CEO003 spoke of the benefits of the pandemic "because everybody was in the canoe rowing in the same direction." This sentiment was most often shared: "I think we're better off because it really strengthened our team" (CEO004). CEO018 said jolts are "marked by caring about each other," while CEO015 said, "we bonded, we really bonded, and I think we just learned how to work together

better. We learned each other's strengths. We learned each other's weaknesses, and we learned how to support each other through those different things."

Survival

Another common theme among the informants was the notion of survival. This became the next second-order theme of this aggregate dimension. It comprises the notion of being able to keep one's head above water and of lasting adverse effects from environmental jolts.

Treading Water. When asked to reflect on the outcome of a jolt, CEO005 responded, "I think, ultimately, we were better off. If you survive [the jolt], you grow and become better." CEO0014 described reacting to a jolt by saying, "In the beginning, we're just trying to stay above water, tread water." Additional examples of informants referring to survival in terms of "keeping the doors open" included: "Success is when the doors are still open" (CEO015), "The mission is accomplished when the doors are still open" (CEO011), and "Ultimately, at the end of the day, we'll keep the doors open, but there are a lot of moving parts to make sure that happens" (CEO008).

Negative Effects of Jolts. It was only mentioned by a handful of CEOs, but it was worth noting that some informants said they were worse off after particular jolts. Says CEO004 of the pandemic, "[post-COVID] nothing has returned back to normal." In reflecting on a financial jolt, CEO011 stated, "Yeah, well, in [our town], I'd say not yet. They continue to struggle." CEO002 spoke of the ramifications of mandated workforce reductions. "I believe it was worse [afterward]. It truly set the stage over the last 10 to 15 years." Lastly, CEO012 said, "There's a period of time where we're better off because it

brings people together, and then I think there's a significant burnout that occurs with each [jolt]. It's things like stress and burnout that are a result."

Adaptive Leadership (Dimension 6 in Figure 3)

Informants were asked to describe their leadership style and whether it changed due to jolts or the overall extreme environment. The lines of questioning were asked temporally at different points during the interview to avoid any conflation of the topics. The CEOs indicated that their leadership style adjusted both in direct response to a jolt and in response to the rural context. These, therefore, became the first two second-order themes within this final dimension: In response to a jolt, in response to the extreme environment.

In Response to a Jolt

Informants described a shift in leadership that occurred as a direct influence of a jolt. The shift was consistently described as a transition from their typical leadership style to one marked by immediacy and directness. The change typically existed only for the duration of the jolt.

Top-Down. Says CEO0020, "[My style during a jolt] is very direct or get it done. Task-oriented. Let's get things done." CEO0012 explicitly described their shift in leadership during a jolt versus a non-jolt period: "In that [jolt] structure, it is a lot more top-down." During a jolt, CEO015 stated that they "make the final decision." CEO0010 echoed this by saying, "I think my leadership style would be to ensure that we're going to make decisions" (CEO010).

Contrary to Standard Leadership Style. Per CEO0012, "Most of the time, that's not how we want to operate long-term. We really want to be a place that empowers employees and seeks ideas from employees and that, you know, ideas bubble up rather than being pushed down." CEO005 reiterated this:

> I like to lead with people being engaged, getting input. Not a democracy, but certainly having everybody involved as much as you can and decision-making, sharing information for focusing on communication, but my style would vary depending on the situation. My default style was having people involved getting feedback, but sometimes you had to be more direct, especially in difficult situations."

Short-term. Many informants stated that the shift was only for the duration of the jolt. CEO0020, for example, stated that, "During the jolt, I was very much 'let's get these things done.'" This implies it was a temporary, short-term shift in leadership style. CEO010 also stated, "Short-term, as opposed to long-term, I think my leadership style would be to ensure that we're going to make decisions." Finally, CEO012 stated that how they lead during a jolt is not how they want to lead "long-term."

In Response to the Extreme Environment

Virtually all CEOs described a change in their long-term leadership style in response to the extreme environment itself. The shift was defined by high visibility, transparency, and heightened communication.

Management by Walking Around. The informants regularly described a transition in their long-term leadership style to one marked by having increased visibility. "I made sure I was out and about. I didn't really before, but I'm meeting with my team quite a bit now. I try to make rounds every day, try to check in with them, just being more present" (CEO006). CEO003 stated:

> Management by wandering around. It means I'm very visible. I know every employee's name. I'm in and out of every department at least once, if not twice, a day. So go where the people are. I don't have a clinical degree; I have an MBA. My weakness would be I don't know what it's like to be a nurse or a doctor, a lab tech or X-ray tech, whatever. So, I've got to try to educate myself over all these years to find out what's going on.

CEO002 described something similar:

> I was in and out of all the different departments, listening to their needs. I was chipping in in areas where I could rub elbows with anybody and everybody. If I'm rubbing elbows with them, they might open up to me and just tell me tell me what's going on with my patients because if you're not in those clinical service lines, you don't know what you don't know.

CEO009 spoke of learning to mimic a prior CEO: "I would watch [the previous CEO] walk around and just be gregarious, just in the facility and carrying on with all the staff. He knew what the staff did in their spare time and made a personal connection." Finally, CEO009 marveled at the difference between being the CEO of a rural hospital versus an urban surgery center:

> I have an open-door policy and am very visible in the organization. I’ve heard stories recently from a provider who had never met the CEO, and here's an MD, and he's one of them. He's busy with the big surgeries. He's a heavy hitter. He had never met the CEO of his hospital. How in the world does that happen? How does your CEO not maintain visibility throughout the organization? I make rounds routinely. Three more times a day. I go to the ER, go to the nurse's stations, go down into surgery, whatever it may be.

Transparency. Another concept regarding adaptive leadership was the notion of transparency. “I think that the decisions you make, things you do are pretty transparent. At least more so in a rural setting versus an urban city” (CEO005). CEO004 reflected that “my leadership style is I'm open, honest and transparent. My door is always open. And if I'm going to tell you something, I'm going to tell the next person the same thing. I'm an open book.” In relation to a rural hospital, CEO019 stated: “I try to be as transparent as I can. I tell people that in a [rural] organization, you may not agree with me, but at least you can at least see what went into the decision.” CEO010 rounded it out by saying, “I prefer to lead by ensuring people are informed with transparency and reasoning. I like to provide adequate reasoning.”

Heightened communication. In addition to being transparent, CEOs describe a long-term shift in their leadership style to one that includes heightened communication. CEO015 reflected on how being a CEO in a rural hospital changed their communication style:

> In a small community, my own grandma calls me and asks me why people can't get an appointment. You have to realize that every decision you make, you may have to defend it in the cereal aisle at Walmart. So, you might as well just come out up front to make sure that everybody knows. In that way, I communicate with my staff if any big decisions are coming out.

CEO006 said that they are learning to be a better communicator due to working in a rural hospital. “When I first started, I didn’t like confrontation. I had to find a way to make that change acceptable and understandable to my team. I think [the biggest change is] being able to change my communication style” (CEO006). Likewise, CEO009 is in the process of adjusting to a rural environment. “I may not be the best communicator, but I sure try, and I try often.”

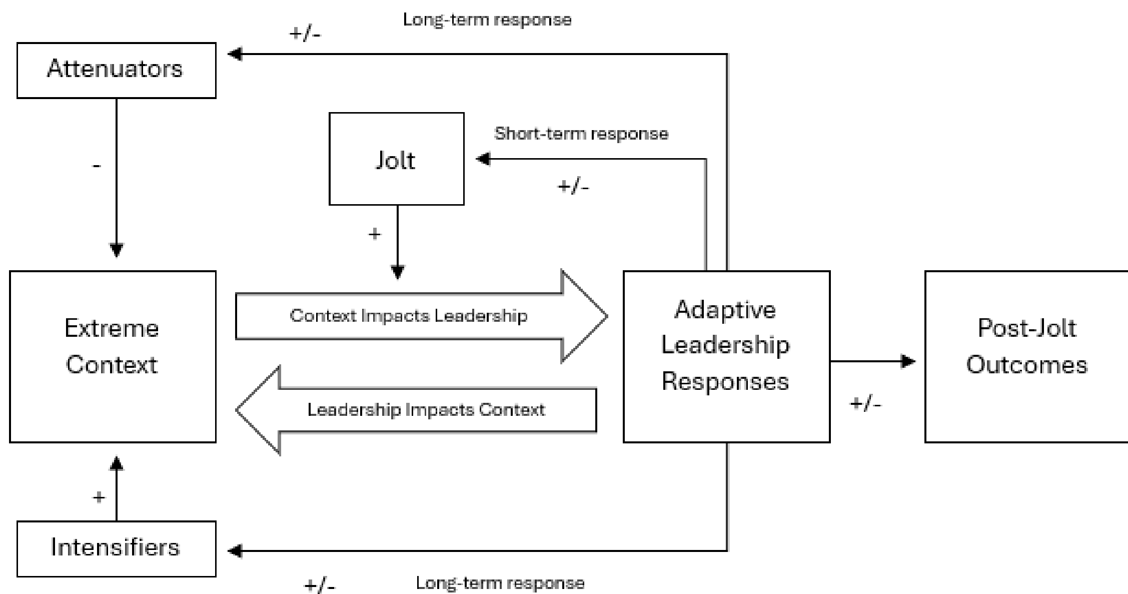
Long-term. The aforementioned paragraphs show that the adaptive leadership responses elicited by the extreme environment are long-lasting changes based on adaptation and growth. For example, CEO0010 stated, “I've changed. I hope that I'm always growing and learning. We do have a unique environment” (CEO010). CEO005 referenced their adaptive responses as “evolving over time.” Similarly, CEO0020 spoke of “evolving,” and CEO017 reflected that their adaptive leadership responses have been an “evolution over the last 25 years.”

Grounded Model

A comprehensive analysis of informants’ responses, using grounded theory methodology, allowed for the development of a model that depicts the complexity surrounding leadership in extreme contexts, especially when faced with environmental

jolts. Firmly rooted in the interview data, an updated typology of leadership in extreme contexts was developed (Figure 4). This new framework incorporates environmental jolts and highlights the recursiveness between extreme contexts and leadership responses. Likewise, it includes the short- and long-term responses of adaptive leadership due to jolts and the extreme context itself. These represent the key findings of this research and will be explored more deeply in Chapter 5.

Figure 4 *Updated Typology of Leadership in Extreme Contexts*



Chapter Five: Discussion, Contributions, and Conclusion

The goal of this project was to understand how leadership might shape and be shaped by extreme contexts and environmental jolts. The research results in four significant contributions to the existing literature on leadership, environmental jolts, and extreme contexts. First, it extends the typology introduced by Hannah et al. (2009) through inductive research, crafting a more comprehensive model of leadership in extreme contexts. Secondly, using a grounded approach, the findings demonstrate a previously underexplored relationship between context and leadership, particularly in extreme contexts. Thirdly, this study integrates the literature on environmental jolts and extreme contexts. Lastly, based on that integration, this body of work further builds out the relationship between adaptive leadership and jolts within extreme contexts. In addition to detailing the principal findings below, this chapter also incorporates implications from a theoretical perspective.

Expanded Typology

This paper contributes to the evolving body of research on leadership in extreme contexts by investigating and expanding upon the existing Hannah et al. (2009) typology. To begin, this study explored two key components within the typology: the concept of attenuators and intensifiers and their impact on extreme contexts, and the recursiveness between leadership and context, which Hannah et al. (2009) illustrate with a dashed line

(Figure 2). This research did not explore the dimensions of extreme contexts deeply, which are on the far left of Hannah et al.'s typology. Instead, based on prior literature, the working assumption was that rural hospitals meet all the qualifications to merit being defined as an extreme context. Outcomes, as they relate to recursiveness of the leader-context relationship, are discussed in the finding section. Within this typology, however, the outcome box refers to the post-jolt outcomes explored within dimension five. A fully updated typology representing the grounded model is presented in Figure 4.

Attenuators and Intensifiers

Attenuators. Hannah et al. (2009) hypothesize that there are factors within extreme contexts that either attenuate or intensify the level of extremity experienced by organizations, leaders, and their followers. As a result of this current study, existing attenuators/intensifiers within the Hannah et al. (2009) typology have been qualitatively validated, and new ones have been identified.

Insights from this research support the proposition that psychological, social, and organizational resources have attenuating properties within extreme contexts. Further, two specific attenuators were mentioned with such regularity that they rose to the level of second-order themes: community connectedness and citizenship behavior. By far, the main attenuator referenced during the interviews was community connectedness. This concept refers to the hospital's profound sense of integration with the community, reciprocated by the community's respect and safeguarding of the hospital. It transcends simple classification as either an organizational or a social resource, embodying elements of both. On a personal level, it represents a psychological asset, whereas at the

organizational level, it functions as a social resource. Psychologically, this resource can "not just change perceptions of an extreme event and one's capacity to counter it but enhance actual performance which could attenuate the threat itself" (Hannah et al., 2009). From a social perspective, this relationship establishes a robust social network between the hospital and its constituents, whereby both operate for the betterment of the collective.

In addition to community connectedness, citizenship behavior within the hospital was also identified as an attenuator, both at the team and CEO levels. Informants routinely spoke of hospital employees going the extra mile for their patients, and CEOs told of regularly performing duties outside their official position's scope. As with the prior attenuator, this cannot be classified solely as one specific type of resource. At the individual level, when employees or the CEO display this behavior, it is a psychological resource leading to creative and empathetic problem-solving. When it permeates organizational culture and is emulated from the top down, this attenuator becomes an intangible organizational resource.

Findings demonstrate a fluidity within the multidimensional framework of extreme contexts, which necessitates the blending of psychological, social, and organizational resources. Results also emphasize the transformative power of such resources in shaping the organizational ethos and individual mindsets needed to survive or even thrive in extreme contexts.

Intensifiers. Within the extreme context typology developed by Hannah et al. (2009), the authors only mention two intensifiers: time and complexity. Remarkably, even

when the informants were explicitly prompted to discuss these elements, neither were identified by the CEOs as intensifiers. An implicit theory is that because the informants are so acclimatized to complex, time-dependent situations within extreme contexts, these constructs are simply part of the landscape, and, thus, the informants were unable to recognize them as external factors. In other words, the CEOs may normalize these potential intensifiers and become essentially blind to them. Additional research would be needed to confirm this assumption.

The leading intensifier recognized by informants was geographic isolation, resulting in a vacuum of resources, particularly when compared to larger institutions. While Hannah et al. (2009) included a plethora of resources as attenuators, the author of this paper argues that a lack of these same resources also becomes an intensifier within extreme contexts. For instance, going without tangible resources such as personal protective equipment (PPE) during the COVID-19 pandemic undoubtedly intensified the situation. Similarly, if an organization lacks adaptability, the result will be a more extreme context.

A second factor that emerged as an intensifier is the pressure exerted on hospitals by external regulatory bodies. This occurs at the federal level, generally through broad federal regulation such as the Balanced Budget Act, but also through specific changes to Medicare, which impact staffing and finances. State regulation also greatly impacts rural hospitals, as Medicaid is run at the state level and represents a significant portion of rural populations. Lastly, numerous informants cited pressure from the board as a critical factor that intensified stress during their tenure as CEO, both personally and organizationally.

This speaks to the interconnectedness of entities within extreme contexts, where changes at the macro, meso, and micro levels can send shockwaves through the entire ecosystem. Understanding these dynamics is critical for developing strategies that can buffer organizations against the effects of external pressures such as these.

In summary, support was found for the attenuating properties of psychological, social, and organizational resources within extreme contexts, although the fluid nature of these resources should be noted. Findings highlight the role of community connectedness and citizenship behavior as important attenuators that combine psychological, social, and organizational resources, thereby impacting challenges faced within extreme contexts. Additionally, a lack of resources and pressure from external regulators are unidentified intensifiers within the Hannah et al. (2009) typology and merit inclusion. The results of this research point to a more nuanced understanding of resources as both attenuators and intensifiers, suggesting a dynamic model that better captures the realities faced by hospitals and their administrators in extreme contexts. This perspective offers valuable insights for developing more robust leadership strategies and organizational practices capable of navigating the challenges inherent to extreme contexts.

Recursive Relationship

Every CEO acknowledged that the context in which they work shaped them. The general consensus from the informants was, “How could it not?” They spoke of the profound positive and negative impact that being a CEO in a rural community had on them personally. Many talked of the joy associated with being able to help patients or save a hospital from imminent closure. Others referred to the constant public scrutiny, of

seeing their employees and patients around town and adjusting their communication styles to accommodate that occurrence. Several informants reflected on sleepless nights and having to make difficult decisions. The informant narratives collectively illustrate that context does not merely act as a backdrop for leadership but actively shapes a leader and their actions.

In exploring the converse of that, Hannah et al. (2009) "suggest that managing attenuators and intensifiers may be critical 'levers' for leadership interventions in extreme contexts" (p. 909). That concept is denoted by the dashed line in their typology and encapsulates the idea that leaders can impact their context via attenuators and intensifiers. Endrissat et al. (2013) wrote one of the few articles that explicitly investigate the subject. They conclude that context influences leaders and that through their everyday leadership behaviors, leaders also influence their context. Those leader-initiated actions become both "context-shaped" and "context-shaping" (Endrissat et al., 2013, p. 294). Examples include when CEO001 spoke of influencing their environment through recruitment and retention (an organizational resource/attenuator), when CEO004 reflected on establishing external social networks with local resources such as the Chamber of Commerce (a social resource/attenuator), and when CEO010 explained how they fostered resiliency within their team (a psychological resource/attenuator). A multitude of similar examples was derived from the interviews. These findings support the concept of leaders not only being shaped by their context but also having the capacity to shape the context in return.

From a theoretical lens, each CEO either implicitly or explicitly referenced a reciprocal relationship between leadership and context. Their stories support the

proposition that not only does an extreme context influence a leader and their decision-making, but the leaders themselves impact their environment with their day-to-day actions. This dynamic of mutual influence is the "two-way street" that CEO001 alluded to when discussing the relationship between context and leadership. Although scholars may acknowledge the possibility of a recursive relationship between context and leadership, this concept remains insufficiently explored in the existing literature, indicating a gap in our understanding. This research, however, has identified overwhelming support for the existence of a recursiveness between context and leadership within extreme contexts. This finding extends contextualized leadership theory by helping to define theoretical boundaries within the extreme context and leadership literature.

Integration of Jolt and Extreme Context Literature

Although extreme contexts and environmental jolts appear connected at the conceptual level, research on these topics has largely developed along divergent paths. The literature search conducted for this study did not yield a single article connecting the two constructs. As such, one of the main objectives of this paper is to unify these two streams of research by investigating how organizations operating within extreme contexts navigate environmental jolts.

Environmental Jolts in Extreme Contexts

This study identified the top environmental jolts within the extreme context of critical access hospitals. More importantly, it found that in rural communities, environmental jolts tend to manifest as profound disturbances stemming from external

forces such as market fluctuations, regulatory changes, and widespread healthcare crises. These jolts often catalyze future instability, creating a domino effect where one jolt precipitates additional jolts. For example, in some instances, the pandemic led to staffing shortages, which then resulted in financial strain, ultimately forcing the closure of critical services within the community. In this case, the initial jolt from COVID-19 created a dynamic of successive, relentless jolts. This underscores the vulnerability of rural hospitals to environmental jolts, as well as the possibility that multicollinearity exists between jolts.

In exploring the aftermath of a jolt within an extreme context, a handful of CEOs described negative outcomes. The vast majority of informants, however, said that if the hospital was able to survive the jolt, they were better off after the event. It was a "what doesn't kill you will make you stronger" mentality. The most referenced post-jolt organizational outcome was the learning and subsequent growth that occurred by overcoming the challenge of a jolt itself. It was an opportunity to push the boundaries and try things they had previously been too afraid or stuck in their ways to attempt. This led to increased team collaboration. CEOs saw their employees pulling together, communicating more regularly, and working across previously-siloed departments. Consequently, this led to positive cultural changes demonstrable when reviewing employee engagement scores. The hospital employees "bonded" and learned how to support one another. The paradox within this construct is that the jolt, which ostensibly makes the context worse, can also lead to positive outcomes by being a catalyst for

change. These organizational outcomes are represented in the box labels Post-Jolt Outcomes in the updated typology (Figure 4).

A key finding is that in extreme environments marked by a scarcity of social, psychological, and organizational resources, one significant environmental jolt often precipitates a chain of further jolts, potentially unfolding at a relentless pace. From a theoretical perspective, this shines a light on the pivotal role of leadership in managing environmental jolts, thereby shaping the greater context based on their reaction to the events. The findings illustrate the need for developing more robust management and preparedness models tailored to the unique context of rural hospitals, as successful navigation of these jolts can lead to beneficial outcomes for the hospital, its employees, patients, and the wider community. Collectively, these findings extend the extreme context literature to include environmental jolts, thereby integrating two previously disparate streams of research. It also contributes to a deeper understanding of how environmental jolts impact rural hospitals and offers a foundation for further theoretical exploration.

Adaptive Leadership

In exploring adaptive leadership responses to environmental jolts and extreme contexts, the study found that informant responses tended to diverge along two distinct paths. The first adaptive leadership response was immediate and temporary, meeting the urgency of a jolt. The second adaptive leadership response was more enduring and geared towards the permanent effects brought about in response to the extreme environment itself. This bifurcation highlights the nuanced approach leaders either knowingly or

instinctually take when managing jolts within extreme contexts. It distinguishes between short-term, immediate responses to jolts and long-term adaptation necessary to endure extreme contexts. This split in adaptive leadership responses underscores the multi-faceted, context-driven nature of leadership in extreme contexts.

When responding to jolts, informants reported a more reactive response where the main goal is mitigating the threat at hand. They noted that they switched from their day-to-day leadership style to a more direct, transactional one. It was described as being more top-down and less collaborative when dealing with the immediacy of a jolt. This shift occurred on a short-term basis and only in response to the jolt. This supports Geier (2016), who argued that leaders become less transformative and more transactional in extreme events.

In response to the extreme context, virtually all the CEOs described a shift in their long-term leadership style to one defined by high-visibility, transparency, and heightened communication. These were long-term changes, often occurring over the course of several years or even the span of a career. The majority of CEOs reference a leadership style called Management by Walking Around (Serrat, O., & Serrat, O., 2017). Within the hospital setting, it is characterized by literally walking around the hospital multiple times daily to interact directly with their teams and patients (Tucker, A. L., & Singer, S. J., 2015). This method gives CEOs direct access to influence their environment with virtually unlimited daily micro-interactions. The prevalence of a very visible form of leadership in extreme contexts builds on Endrissat et al. (2013), who referred to day-to-

day leadership behaviors and interactions with stakeholders as both "context-shaped" and "context-shaping."

Informants also reported a shift toward a leadership style emphasizing increased communication and transparency, driven by community connectedness and the direct impact of their decisions on people they personally know. This transition towards transparency and heightened communication facilitates smoother interactions, such as when employees and patients approach them in the cereal aisle at the grocery store or at their children's school.

The theoretical implications of these findings are significant. These observations support and extend leadership theory by illustrating that adaptive leadership is not a one-size-fits-all approach but varies depending on the nature of the challenge. Further, they emphasize the importance of context in shaping leadership responses and suggest that effective leadership is highly context-driven and requires leaders to dynamically switch between different styles and approaches.

Updated Typology

Integrating the aforementioned elements and the data structure introduced in this study, an updated typology of leadership in extreme contexts was developed using grounded methodology (Figure 4). This new framework builds on the extant literature by validating the influence of attenuators and intensifiers on contextual extremity, incorporating environmental jolts within the literature on extreme leadership, and highlighting the recursiveness that exists between extreme contexts and leadership responses. Likewise, it includes the short- and long-term responses of adaptive leadership

due to jolts and the extreme context itself and ties those responses to organizational outcomes. This model presents a more comprehensive, empirically-based view of leadership in extreme contexts.

These updates are relevant because they help provide a more nuanced understanding of leadership dynamics in extreme contexts, which scholars can use as a steppingstone for future research. For example, this research can help scholars explore unexamined facets of leadership, such as the specific mechanisms by which attenuators and intensifiers impact leadership effectiveness or how different types of environmental jolts affect organizational outcomes. The framework's emphasis on environmental jolts and the interaction between leadership responses and extreme context may prompt scholars from related fields, such as psychology, sociology, and management, to apply these insights to their own work. This interdisciplinary approach could lead to a holistic understanding of how individuals and organizations navigate extreme challenges. All in all, this typology enriches the academic discourse on leadership in extreme contexts and offers practical and empirically grounded insights that can be leveraged by scholars and practitioners alike. Theoretically, this research suggests several testable propositions, which are outlined in the next section.

Transferability and Implications

The question of transferability, extending the findings of a qualitative study to a broader domain, remains a persistent challenge (Corley & Gioia, 2004; Lincoln & Guba, 1985). The existing literature, however, confirms the vast transferability of this body of work, as 57 million Americans rely on rural hospitals for their essential care (Murphy et

al., 2018). With the majority of rural hospitals on the verge of closure (Becker's Hospital Review, 2022), it is essential to learn as much as possible about leadership within these contexts so effective strategies can be developed and implemented to ensure the sustainability of these facilities.

It is worth noting that size is not a defining characteristic of an extreme environment, yet being small is a quality intrinsic to the particular type of extreme context in this research, namely rural hospitals. It is possible that factor is not sufficiently explored theoretically within this research. As such, the transferability of the findings may be somewhat limited by the issue of smallness of the critical access hospitals themselves and the communities they serve.

The question remains: Why is studying extreme contexts important? Several authors have attempted to answer this question; however, the prevailing notion is that doing so provides an opportunity to "showcase the best and worst of human and organizational behaviors and accelerate processes otherwise impeded by bureaucracy, power plays, and politicking. [It] may provide particularly rich insights into organizational processes of adaptation and prioritization, resilience (following an extreme event), and barriers to inertia (where organizations fail to respond)" (Hällgren et al., 2018, p. 112). This information can inform theory and practice for the millions of stakeholders who live and operate in extreme environments. For the same reasons, this research also has practical and theoretical implications for non-extreme contexts. As it pertains to leadership, Beechler et al. (2008) assert that "understanding leadership in extreme situations can bring into much clearer relief the success factors, contingencies,

and interdependencies involved in less dangerous contexts faced by executives and other key decision makers" (p. 2).

This study offers numerous examples that illustrate this concept. For instance, a principal insight derived from this research is that organizational outcomes are dependent on a leader's adaptation to their environment. This research showed that in extreme environments, this manifests as both short-term and long-term adaptive leadership responses. The most immediate response is short-lived and geared towards survival; the second is in response to the environment itself. The identification of this dual nature of adaptive responses was made possible by this study's ability to isolate the stripped-down, accelerated processes present in extreme contexts. While it was uncovered in the investigation of extreme contexts, this finding likely has theoretical and practical implications surrounding the ability or inability of leaders to adapt in more conventional contexts, particularly as they face challenges. The author of this study proposes that a similar, two-pronged framework for adaptation exists in leadership responses in non-extreme contexts facing environmental jolts. Further research would be needed to validate or dispute this assertion.

Building on that, an additional proposition made by the author is that effective adaptive leadership responses are directly tied to organizational outcomes. By extension, the argument is made that the ability of leadership to adapt serves as a primary attribute that enables some hospitals—both urban and rural—to survive against all odds. Conversely, the failure of the CEO to adapt may be what leads to negative organizational outcomes or even closure of a hospital. With more than 59% of the critical access

hospitals in the United States at risk of shutting down, this potential insight could have enormous ramifications for the nearly 60 million Americans living in rural communities (Beckers Hospital Review, 2022; U.S. Census Bureau, 2017). Further, hospitals in urban areas also face financial hardship and potential closure. For example, according to The Office of Inspector General, 296 urban hospitals closed between 1990 and 2000 (Office of Inspector General, 2003). They also stated that 26.6% of the closures were due to business-related decisions, and 10.6% of the urban hospitals closed due to other factors such as mismanagement. This emphasizes the need for research and development of practical applications aimed at ensuring the viability of both urban and rural hospitals. Addressing this issue is crucial for safeguarding the health and well-being of a vast segment of the U.S. population. From a theoretical perspective, this highlights the importance of effective adaptive leadership in ensuring organizational success across a variety of contexts.

Another key finding relates to the identification of blended resources, the primary of which is community connectedness. Practically, identifying this as a main attenuator offers actionable strategies for organizations operating in extreme contexts. Namely, organizations can make efforts to build strong community relations or develop community-based initiatives. Theoretically, the author of this article proposes that leveraging mutual support and respect between the organization and the community may foster resilience and enhance performance, even in non-extreme contexts.

In summary, more research is needed in this emerging field to "understand the knowledge, skills, abilities, and attributes needed by formal and informal leaders to be

effective in extreme contexts" (Hannah et al., 2014, p. 622). Practical implications include identifying actionable steps to improve leadership responses and organizational outcomes. As it relates to healthcare, particularly rural medicine, the author of this study believes the answers lie in examining the firsthand stories of the leaders within these rural populations. However, the theoretical and practical implications also extend to more conventional settings, as extreme contexts are considered a microcosm of leadership in general, with important and far-reaching applications for non-extreme contexts.

Future Research

In addition to investigating the propositions outlined above, future research opportunities are plentiful. This study focused on rural hospitals as an example of an extreme context. Extension of this research into other types of extreme contexts, such as military operations and areas facing humanitarian crises, would be a natural progression, particularly when exploring environmental jolts.

As stated in the findings section, CEOs did not mention time or complexity as intensifiers even when explicitly prompted to do so. One implicit theory is that leaders in extreme contexts are so accustomed to these intensifiers that they become indistinguishable as external factors. Essentially, it may be that operators in extreme contexts take these factors for granted since they are inherently part of an extreme context. It could be interesting to test this assumption in future research.

Additionally, the observation that leaders may either knowingly or instinctually respond to jolts and extreme contexts opens up a potential area for future research surrounding cognitive decision-making and intuition in extreme environments. It is

possible that some effective leadership behavior may be driven by nonconscious processes, raising questions about how these instincts can be identified and perhaps trained, particularly in extreme situations. This research would build on dual-processing theory, which states that rational decision making is vastly different from intuition in that it is a relatively slow, analytic process that involves evaluating multiple variables before making a conscious decision. In contrast, intuition decision-making is nonconscious, holistic, associative, and made much more quickly than rational decisions (Bargh, J. A., & Chartrand, T. L., 1999; Dane, E., & Pratt, M. G., 2007).

Lastly, it may be worth investigating this through the attraction, selection, and attrition (ASA) lens to see if there is homogeneity among the leaders within extreme contexts and what organizational impact that might have (Schneider et al., 1995). It is plausible that extreme organizations attract or exclude a particular type of employee, impacting leadership and their associated behaviors. It is possible, likely even, that rural contexts attract a particular type of CEO, or conversely, the environment itself repels candidates. Given the implicit assumption that CEOs of a rural hospital significantly impact organizational outcomes, it is possible that whoever ends up becoming CEO has grave repercussions within these vulnerable populations.

Limitations

Although this study's author believes the study reached theoretical saturation and provided valuable theoretical and practical insights, an obvious limitation is the sample size. A larger and more diverse sample size could provide a more comprehensive understanding of leadership responses across different types of extreme contexts.

Temporal bias could be another limitation of this study. The timing of the interviews relative to the occurrence of the environmental jolts may have influenced the CEO's responses. For instance, had this study taken place three years ago, informants' reflections on COVID-19 may have differed. It is also possible that the voluntary nature of participation could mean that the CEOs who chose to participate are more confident in or attuned to their leadership approaches, thus skewing the findings.

Using interview data exclusively from CEOs also may have introduced self-reporting bias, as these informants are likely not neutral in their responses. In fact, the CEOs may have a vested interest in portraying themselves and their hospitals favorably. This inclination towards self-enhancement could lead to skewed responses that highlight achievements and minimize challenges. Consequently, there is a risk that the data collected may not fully and accurately capture the entire picture. Personal bias may have existed in conducting interviews with the 50% of CEOs with whom the author has a professional relationship. Bias was minimized, however, since participation was entirely voluntary and occurred without compensation or coercion. Given the uniqueness of the access to these CEOs and the richness of the acquired data, any potential bias should not discredit the study's validity. Rather, the findings set the stage for future research. Moreover, the author's personal relationship with the CEOs enhanced trust and fostered an open, honest dialog. It is argued, therefore, that an existing relationship between the informant and the interviewer presented a unique opportunity to elicit a conversation that would otherwise be less forthcoming.

Conclusion

More than 59% of the rural hospitals in the United States are at risk of shutting down (Beckers Hospital Review, 2022). These facilities offer vital healthcare services to nearly 60 million Americans (U.S. Census Bureau, 2017). This scenario emphasizes the urgent need for research and the development of practical applications aimed at ensuring the viability of these hospitals. Addressing this issue is crucial for safeguarding the health and well-being of a vast segment of the population that lives in rural communities.

To that end, this research aimed to explore the dynamic relationship between leadership and extreme contexts, particularly when faced with an environmental jolt. Using a series of twenty inductive, semi-structured discussions and a grounded theory approach, the research expanded the prevailing typology on leadership in extreme contexts and illuminated the existence of a recursive relationship between leaders and the context in which they operate. Specifically, community connectedness and citizenship behavior were identified as attenuators that may influence the level of extremity within an extreme context. New intensifiers include a lack of social, psychological, and social resources and pressure from external regulators. Furthermore, the research found strong support for a recursive relationship between leadership and context, indicating a mutual influence between the two constructs.

This study also integrated previously disparate bodies of literature regarding extreme contexts and environmental jolts. Staffing shortages, financial uncertainty, and COVID-19 were the primary jolts identified within these rural hospitals. It was also observed that jolts tended to be related, both to prior administrators and to other jolts.

This successive nature of environmental jolts in extreme contexts often led to a painful, relentless period of additional jolts. The study found, however, that if a hospital could survive the environmental jolt, it often experienced profoundly positive organizational changes. These include enhanced learning and growth, better team collaboration, and a positive shift in organizational culture. This research also uncovered both short- and long-term adaptive leadership responses within extreme environments. In response to a jolt, leaders acted immediately and became more direct and more authoritative. The change, however, was short-lived. In contrast, CEOs of rural hospitals modified their leadership style in the long run as a response to the extreme environment itself. This change is marked by greater visibility, transparency, and frequent communication.

This work responds to the call-to-action issued by numerous academicians, as researchers are just beginning to explore leadership in extreme contexts. The inference is that extreme contexts can provide a unique mechanism by which difficult-to-obtain organizational phenomena can be studied. Further, investigating leadership in extreme environments can help us understand leadership in broader, more conventional contexts. As it pertains to leadership theory, this study builds on the work by Fiedler (1967), Osborn (2002), Hannah et al. (2009), and more, all of whom argue that leadership and context are inextricably intertwined. The constructs are, as stated by Endrissat et al. (2013), two sides of the same coin.

References

Ameh, G. G., Njoku, A., Inungu, J., & Younis, M. (2020). Rural America and coronavirus epidemic: Challenges and solutions. *European Journal of Environment and Public Health*, *4*(2), em0040. https://doi.org/10.29333/ejeph/8200

American College of Emergency Physicians. (2020). *Delivery of emergency care in rural settings: an information paper*. American College of Emergency Physicians. https://www.acep.org/siteassets/sites/acep/blocks/section-blocks/rural/delivery-of-emergency-care-in-rural--settings.pdf

Arnold, K. A., Loughlin, C., & Walsh, M. M. (2016). Transformational leadership in an extreme context: Examining gender, individual consideration and self-sacrifice. *Leadership & Organization Development Journal*, *37*(6), 774-788. https://doi.org/10.1108/LODJ-10-2014-0202

Ayman, R., Chemers, M. M., & Fiedler, F. (1995). The contingency model of leadership effectiveness: Its levels of analysis. *The Leadership Quarterly*, *6*(2), 147-167. https://doi.org/10.1016/1048-9843(95)90032-2

Bargh, J. A., & Chartrand, T. L. (1999). The unbearable automaticity of being. *American Psychologist*, *54*(7), 462. https://doi.org/10.1037/0003-066X.54.7.462

Braga, B., & Santos, V. M. (2023). Leaders in the pandemic: Contributions to the literature on leadership in organizations in extreme contexts. *RAM. Revista de Administração Mackenzie*, *24*, eRAMD230072. https://doi.org/10.1590/1678-6971/eRAMD230072.en

Becker's Hospital Review. (2022). *892 hospitals at risk of closure state by state.* https://www.beckershospitalreview.com/finance/892-hospitals-at-risk-of-closure-state-by-state.html

Beechler, S., & Nippa, M. (2008). Directing research on leadership in extreme contexts: Guideposts to avoid a-missing-in-research action trauma. *SSRN*. http://dx.doi.org/10.2139/ssrn.2310298

Bird, A. (2021). The Challenge of Developing Global Leaders While Adapting to Global Environmental Jolts. *Journal of Strategic Management Studies*, 12(2), 99-103. https://doi.org/10.24760/iasme.12.2_99

Bono, J. E., & Judge, T. A. (2004). Personality and transformational and transactional leadership: a meta-analysis. *Journal Of Applied Psychology*, 89(5), 901. https://doi.org/10.1037/0021-9010.89.5.901

Bradley, S. W. (2015). Environmental jolts. *Wiley encyclopedia of management*, 1-3. https://doi.org/10.1002/9781118785317.weom030035

Bundy, J., Pfarrer, M. D., Short, C. E., & Coombs, W. T. (2017). Crises and crisis management: Integration, interpretation, and research development. *Journal of Management*, *43*(6), 1661-1692. https://doi.org/10.1177/0149206316680030

Centers for Medicare & Medicaid Services. (2023). *Critical Access Hospitals (CAHs)*. U.S. Department of Health and Human Services, National Institutes of Health. https://www.cms.gov/Medicare/Provider-Enrollment-and-Certification/CertificationandComplianc/CAHs

Christianson, M. K., Farkas, M. T., Sutcliffe, K. M., & Weick, K. E. (2009). Learning through rare events: Significant interruptions at the Baltimore & Ohio Railroad Museum. *Organization Science*, *20*(5), 846-860. http://www.jstor.org/stable/25614699

Colorado Rural Health Center (2024). *Snapshot of Rural Health in Colorado 2024.* State Office of Rural Health (nonprofit organization). https://coruralhealth.org/snapshot-of-rural-health

Corley, K. G., & Gioia, D. A. (2004). Identity ambiguity and change in the wake of a corporate spin-off. *Administrative Science Quarterly*, *49*(2), 173-208. https://doi.org/10.2307/4131471

Currie, G., Lockett, A., & Suhomlinova, O. (2009). Leadership and institutional change in the public sector: The case of secondary schools in England. *The Leadership Quarterly*, *20*(5), 664-679. https://doi.org/10.1016/j.leaqua.2009.06.001

Dale Oen, V., Svihus, J., Solberg, S. H. R., Harris, A., & Eid, J. (2022). Crisis leadership in COVID-19: A qualitative study of Norwegian business leaders. *Frontiers in Psychology*, *13*, 937935. https://doi.org/10.3389/fpsyg.2022.937935

Dane, E., & Pratt, M. G. (2007). Exploring intuition and its role in managerial decision making. *Academy of Management Review*, *32*(1), 33-54. https://doi.org/10.5465/amr.2007.23463682

Dirks, K. T., & Ferrin, D. L. (2002). Trust in leadership: meta-analytic findings and implications for research and practice. *Journal Of Applied Psychology*, *87*(4), 611. https://doi.org/10.1037/0021-9010.87.4.611

Eden, D., & Leviatan, U. (1975). Implicit leadership theory as a determinant of the factor structure underlying supervisory behavior scales. *Journal of Applied Psychology*, 60(6), 736. https://doi.org/10.1037/0021-9010.60.6.736

Ember, C. R., & Ember, M. (1992). Resource unpredictability, mistrust, and war: A cross-cultural study. *Journal of Conflict Resolution*, *36*(2), 242-262. https://www.jstor.org/stable/174475

Endrissat, N., & von Arx, W. (2013). Leadership practices and context: Two sides of the same coin. *Leadership*, 9(2), 278-304. http://www.jstor.org/stable/174475

Fiedler, F. E. (1964). A contingency model of leadership effectiveness. *Advances in Experimental Social Psychology* (Vol. 1, pp. 149-190). https://doi.org/10.1016/S0065-2601(08)60051-9

Fiedler, F. E. (1967). *A Theory of Leadership Effectiveness* (1st ed.). McGraw-Hill Series in Management.

Fiedler, F. E. (1971). Validation and extension of the contingency model of leadership effectiveness: A review of empirical findings. *Psychological Bulletin*, 76(2), 128. https://doi.org/10.1037/h0031454

Fleishman, E. A. (1953). The description of supervisory behavior. *Journal of Applied Psychology*, *37*(1), 1. https://doi.org/10.1037/h0056314

Flex Monitoring Team. (n.d.). *Critical Access Hospital Locations Map*. Flex Monitoring Program. https://www.flexmonitoring.org/critical-access-hospital-locations-map

Förster, C., Füreder, N., & Hertelendy, A. (2023). Why time matters when it comes to resilience: how the duration of crisis affects resilience of healthcare and public

health leaders. Public Health, 215, 39-41. https://doi.org/10.1016/j.puhe.2022.11.024

Geier, M. T. (2016). Leadership in extreme contexts: transformational leadership, performance beyond expectations?. *Journal of Leadership & Organizational Studies*, *23*(3), 234-247. https://doi.org/10.1177/1548051815627359

Gerstner, C. R., & Day, D. V. (1997). Meta-Analytic review of leader–member exchange theory: Correlates and construct issues. *Journal of Applied Psychology*, *82*(6), 827. https://doi.org/10.1037/0021-9010.82.6.827

Gioia, D. A., Corley, K. G., & Hamilton, A. L. (2013). Seeking qualitative rigor in inductive research: Notes on the Gioia methodology. *Organizational Research Methods*, *16*(1), 15-31. https://doi.org/10.1177/1094428112452151

Graeff, C. L. (1997). Evolution of situational leadership theory: A critical review. *The Leadership Quarterly*, *8*(2), 153-170. https://doi.org/10.1016/S1048-9843(97)90014-X

Goldman, L. E., & Dudley, R. A. (2008). United States rural hospital quality in the Hospital Compare Database—accounting for hospital characteristics. *Health Policy*, *87*(1), 112-127. https://doi.org/10.1016/j.healthpol.2008.02.002

Goll, I., & Rasheed, A. A. (2011). Environmental jolts, clocks, and strategic change in the U.S. airline industry: the effects of deregulation and the 9/11/2001 terrorist attacks. *Business and Politics*, 13(4), 1-35. https://doi.org/10.2202/1469-3569.1386

Lincoln, Y. S., & Guba, E. G. (1985). *Naturalistic Inquiry*. SAGE Publications.

Hällgren, M., Rouleau, L., & De Rond, M. (2018). A matter of life or death: How extreme context research matters for management and organization studies. *Academy of Management Annals*, *12*(1), 111-153. https://doi.org/10.5465/annals.2016.0017

Handel, D. A., Hedges, J. R., & SAEM IOM Task Force. (2007). Improving rural access to emergency physicians. *Academic Emergency Medicine*, 14(6), 562-565. https://doi.org/10.1197/j.aem.2007.02.025

Hannah, S. T., & Parry, K. W. (2014). *Leadership in Extreme Contexts*, in David V. Day (ed.). The Oxford Handbook of Leadership and Organizations, Oxford Library of Psychology. https://doi.org/10.1093/oxfordhb/9780199755615.013.030

Hannah, S. T., Uhl-Bien, M., Avolio, B. J., & Cavarretta, F. L. (2009). A framework for examining leadership in extreme contexts. *The Leadership Quarterly*, *20*(6), 897-919. https://psycnet.apa.org/doi/10.1016/j.leaqua.2009.09.006

Hannah, S. T., Campbell, D. J., & Matthews, M. D. (2010). Advancing a Research Agenda for Leadership in Dangerous Contexts. *Military Psychology*, 22(sup1), S157-S189. https://doi.org/10.1080/08995601003644452

Hater, J. J., & Bass, B. M. (1988). Superiors' evaluations and subordinates' perceptions of transformational and transactional leadership. *Journal of Applied Psychology*, *73*(4), 695. https://psycnet.apa.org/doi/10.1037/0021-9010.73.4.695

Hermann, C. F. (1970). Crisis in Foreign Policy: A Simulation Analysis. *American Political Science Review,* 64(3):913-914. https://doi.org/10.2307/1953476

Hersey, P., Blanchard, K. H., & Natemeyer, W. E. (1979). Situational leadership, Perception, and the Impact of Power. *Group & Organization Studies*, *4*(4), 418-428. https://doi.org/10.1177/105960117900400404

Johns, G. (2006). The Essential Impact of Context on Organizational Behavior. *Academy of Management Review*, *31*(2), 386-408. https://doi.org/10.5465/amr.2006.20208687

Kaufman, B., Pink, G., & Holmes, M. (2016). *Prediction of Financial Distress among Rural Hospitals*, Findings Brief. N.C. Rural Health Research Program. https://www.shepscenter.unc.edu/wp-content/uploads/2016/01/2015Prediction-of-Distress.pdf

Kaufman, B. G., Thomas, S. R., Randolph, R. K., Perry, J. R., Thompson, K. W., Holmes, G. M., & Pink, G. H. (2016). The Rising Rate of Rural Hospital Closures. The *Journal of Rural Health*, 32(1), 35-43. https://doi.org/10.1111/jrh.12128

Kaufman, B. G., Whitaker, R., Pink, G., & Holmes, G. M. (2020). Half of Rural Residents at High Risk of Serious Illness Due to COVID-19, Creating Stress on Rural Hospitals. *The Journal of Rural Health*, 36(4), 584-590. https://doi.org/10.1111%2Fjrh.12481

Klein, K. J., & Kozlowski, S. W. (2000). From micro to meso: Critical Steps in Conceptualizing and Conducting Multi-Level Research. *Organizational Research Methods*, *3*(3), 211-236. http://dx.doi.org/10.1177/109442810033001

Klein, K. J., Ziegert, J. C., Knight, A. P., & Xiao, Y. (2006). Dynamic Delegation: Shared, Hierarchical, and Deindividualized Leadership in Extreme Action

Teams. *Administrative Science Quarterly*, 51(4), 590-621. https://doi.org/10.2189/asqu.51.4.590

Kolditz, T. (2007). *In Extremis Leaders: Can you and your team lead in crises?*. Leadership Excellence, 24(10), 18.

Kolditz, T. A. (2010). *In extremis leadership: Leading as if your life depended on it.* John Wiley & Sons.

Kovoor-Misra, S., Clair, J. A., & Bettenhausen, K. L. (2001). Clarifying the Attributes of Organizational Crises. *Technological Forecasting and Social Change*, *67*(1), 77-91. https://doi.org/10.1016/S0040-1625(99)00081-5

Lanzara, G. F. (1983). Ephemeral organizations in extreme environments: Emergence, strategy, extinction [I]. *Journal of Management Studies*, *20*(1), 71-95. https://doi.org/10.1111/j.1467-6486.1983.tb00199.x

Lincoln, Y. S., & Guba, E. G. (1985). *Naturalistic Inquiry*. Sage.

Lord, R. G., Day, D. V., Zaccaro, S. J., Avolio, B. J., & Eagly, A. H. (2017). Leadership in applied psychology: Three waves of theory and research. *Journal of Applied Psychology*, *102*(3), 434. http://dx.doi.org/10.1037/apl0000089

Majchrzak, A., Jarvenpaa, and Andrea B. Hollingshead. "Coordinating Expertise Among Emergent Groups Responding to Disasters." *Organization Science* 18.1 (2007): 147-161. https://doi.org/10.1287/orsc.1060.0228

Judge, T. A., & Piccolo, R. F. (2004). Transformational and Transactional Leadership: A Meta-Analytic Test of Their Relative Validity. *Journal of Applied Psychology*, *89*(5), 755. https://psycnet.apa.org/doi/10.1037/0021-9010.89.5.755

Marks, M. A., Zaccaro, S. J., & Mathieu, J. E. (2000). Performance implications of leader briefings and team-interaction training for team adaptation to novel environments. *Journal of Applied Psychology*, *85*(6), 971. https://psycnet.apa.org/doi/10.1037/0021-9010.85.6.971

Marques-Quinteiro, P., Chambel, M. J., & Maio, A. (2022). Leadership at the Extreme: A Longitudinal Study of Transformational Leadership Style and Well-Being in Firefighters. *Fire*, *5*(6), 192. http://dx.doi.org/10.3390/fire5060192

Maynard, M. T., Kennedy, D. M., & Resick, C. J. (2018). Teamwork in extreme environments: Lessons, challenges, and opportunities. *Journal of organizational behavior*, *39*(6), 695-700. https://psycnet.apa.org/doi/10.1002/job.2302

Meyer, A. D. (1982). Adapting to environmental jolts. *Administrative Science Quarterly*, 515-537. https://doi.org/10.2307/2392528

Meyer, A. D., Brooks, G. R., & Goes, J. B. (1990). Environmental Jolts and Industry Revolutions: Organizational Responses to Discontinuous Change. *Strategic Management Journal*, 93-110. http://www.jstor.org/stable/2486672

Mintzberg, H. (2001). Managing exceptionally. *Organization Science*, *12*(6), 759-771. https://www.jstor.org/stable/3086046

Murphy, K. M., Hughes, L. S., & Conway, P. (2018). A Path to Sustain Rural Hospitals. *JAMA*, *319*(12), 1193-1194. https://doi.org/10.1001/jama.2018.2967

Office of Inspector General. (2003) *Trends in Urban Hospital Closure 1990-2000*. U.S. Department of Health and Human Services. https://oig.hhs.gov/oei/reports/oei-04-02-00611.pdf

Osborn, R. N., Hunt, J. G., & Jauch, L. R. (2002). Toward a contextual theory of leadership. *The Leadership Quarterly*, 13(6), 797-837. https://doi.org/10.1016/S1048-9843(02)00154-6

Perrow, C. (1970). *Organizational analysis: A sociological view.* Brooks/Cole. https://doi.org/10.1177/003803857200600148

Porter, L. W., & McLaughlin, G. B. (2006). Leadership and the organizational context: like the weather?. *The Leadership Quarterly*, *17*(6), 559-576. https://doi.org/10.1016/j.leaqua.2006.10.002

Powell, T. C. (1991). Shaken, but alive: Organizational behavior in the wake of catastrophic events. *Industrial Crisis Quarterly*, 5(4), 271-291. https://doi.org/10.1177/108602669100500403

Rijpma, J. A. (1997). Complexity, Tight–Coupling and Reliability: Connecting Normal Accidents Theory and High Reliability Theory. *Journal of Contingencies and Crisis Management*, *5*(1), 15-23. https://doi.org/10.1111/1468-5973.00033

Rosenbusch, K., Gajjar, K., Chatterjee, A., & Soni, S. (2023). Non-profit crisis leadership during the COVID-19 pandemic in India and the United States. *Human Resource Development International*, 1-27. https://doi.org/10.1080/13678868.2023.2202143

Schein, V. E. (1973). The Relationship Between Sex Role Stereotypes and Requisite Management Characteristics. *Journal of Applied Psychology*, *57*(2), 95. https://doi.org/10.2307/256439

Schneider, B., Goldstiein, H. W., & Smith, D. B. (1995). The ASA framework: An update. *Personnel Psychology*, *48*(4), 747-773. https://psycnet.apa.org/doi/10.1111/j.1744-6570.1995.tb01780.x

Serrat, O. (2017). *Knowledge solutions: Tools, methods, and approaches to drive organizational performance*. Asian Development Bank. 321-324. https://www.adb.org/publications/knowledge-solutions-organizational-performance

Seifert, C. (2007). Improving disaster management through structured flexibility among frontline responders. *Communicable crises*, 83-136.

Slonim, A. D., See, H., & Slonim, S. (2020). Challenges confronting rural hospitals accentuated during COVID-19. *Journal of Biomedical Research*, 34(6), 397. https://doi.org/10.7555%2FJBR.34.20200112

Spradley, J. P. (1979). The ethnographic interview. New York: Holt, Rhinehart & Winston. LeCompte, MD (2000). *Analyzing Qualitative Data. Theory into Practice*, 39(3), 146-156.

Stake, R. E. (1995). *The Art of Case Study Research*. SAGE Publications.

Stogdill, R. M. (1948). Personal Factors Associated with Leadership: A Survey of the Literature. *The Journal of Psychology*, *25*(1), 35-71. https://doi.org/10.1080/00223980.1948.9917362

Stogdill, R. M., & Shartle, C. L. (1948). Methods for determining patterns of leadership behavior in relation to organization structure and objectives. *Journal of Applied Psychology*, *32*(3), 286. https://psycnet.apa.org/doi/10.1037/h0057264

Thomas, S. R., Holmes, G. M., & Pink, G. H. (2016). To What Extent do Community Characteristics Explain Differences in Closure Among Financially Distressed Rural Hospitals?. *Journal of Health Care for the Poor and Underserved*, 27(4), 194-203. https://doi.org/10.1353/hpu.2016.0176

Tucker, A. L., & Singer, S. J. (2015). The Effectiveness of Management-by-Walking-Around: A Randomized Field Study. *Production and Operations Management*, *24*(2), 253-271. https://doi.org/10.1111/poms.12226

U.S. Census Bureau. (n.d.). Rural Areas. https://www.census.gov/programs-surveys/geography/guidance/geo-areas/urban-rural.html

U.S. Census Bureau. (2017, August). Rural America. https://www.census.gov/library/stories/2017/08/rural-america.html

Veazie, S., Peterson, K., & Bourne, D. (2019). *Evidence Brief: Implementation of High Reliability Organization Principles*. Department of Veterans Affairs. https://www.ncbi.nlm.nih.gov/books/NBK542883/

Van Manen, M. (2016). *Researching Lived Experience: Human Science for an Action Sensitive Pedagogy* (2nd ed.). Routledge. https://doi.org/10.4324/9781315421056

Vroom, V. H., & Jago, A. G. (2007). The role of the situation in leadership. *American Psychologist*, 62(1), 17. https://psycnet.apa.org/doi/10.1037/0003-066X.62.1.17

Wallace, M., & Tomlinson, M. (2010). Contextualizing Leader Dynamics: How Public Service Leaders Endeavour to Build Influence. *Leadership*, 6(1), 21-45. https://doi.org/10.1177/1742715009354238

Wan, W. P., & Yiu, D. W. (2009). From crisis to opportunity: Environmental jolt, corporate acquisitions, and firm performance. *Strategic Management Journal*, 30(7), 791-801. https://doi.org/10.1002/smj.744

Weick, K. E. (1988). Enacted Sensemaking in Crisis Situations. *Journal of Management Studies*, *25*(4), 305-317. https://onlinelibrary.wiley.com/doi/pdf/10.1111/j.1467-6486.1988.tb00039.x

Weick, K. E. (1990). The Vulnerable System: An Analysis of the Tenerife Air Disaster. *Journal of Management*, *16*(3), 571-593. https://doi.org/10.1177/014920639001600304

Weick, K. E. (1993). The Collapse of Sensemaking in Organizations: The Mann Gulch Disaster. *Administrative Science Quarterly*, *38*, 628-652. https://doi.org/10.2307/2393339

Weick, K. E., & Roberts, K. H. (1993). Collective Mind in Organizations: Heedful Interrelating on Flight Decks. *Administrative Science Quarterly*, 357-381. https://doi.org/10.2307/2393372

Williams, J. M., Ehrlich, P. F., & Prescott, J. E. (2001). Emergency medical care in rural America. *Annals of Emergency Medicine*, 38(3), 323-327. https://doi.org/10.1067/mem.2001.115217

Wishner, J., Solleveld, P., Rudowitz, R., Paradise, J., & Antonisse, L. (2016). *A Look at Rural Hospital Closures and Implications for Access to Care: Three Case Studies*. Kaiser Family Foundation.

https://www.urban.org/sites/default/files/publication/82511/2000857-brief-a-look-at-rural-hospital-closures-and-implications-for-access-to-care.pdf

Appendix A: Interview Protocol

1. What is it that sets rural hospitals apart from other types of hospitals? What are the challenges that are unique to operating your hospital?

2. What key resources would you like to have that you don't have?

3. What are some resources that you have that may not be available at larger sites, things that allow you to serve your community well? They don't have to be physical resources; they can be social or psychological ones.

4. A jolt is described in the literature as "*sudden and unprecedented events that elicit changes so extensive that they overwhelm the adaptive capacities of organizations and surpass the comprehension of seasoned managers."* Can you describe a situation where you had to lead your hospital through such an event?

5. Do you feel your hospital has had to deal with jolts infrequently or on a regular basis? Given that you operate in a rural community, what aspects of your organization helped carry you through these situations?

6. Reflecting on a jolt you've experienced, are there things that you personally have done to make that situation better or worse? Are there things you would have done differently? Does it depend on certain factors? If so, what?

7. Do you believe you modify your leadership style based on the specific challenge or jolt that you're facing? What are the most impactful things you do to support your hospital during these difficult times?

8. Generally speaking, do you think your organization is better or worse off in the aftermath of this/these jolt(s)? How so? Is it dependent on the type of jolt?

9. Within the literature, contextual factors have been identified that can help make an extreme situation easier or more difficult. Psychological, social, and organizational resources are generally listed as attenuators. Factors that intensify these contexts are identified as time (e.g. compression, duration & frequency) and complexity. Do you think that these are legitimate factors that make it easier or harder to operate in a rural environment? Are there others that are not identified?

10. How long have you been CEO of your hospital? How many hospitals have you served? What is your background? Did you move to the community for your job?

11. Do you have a leadership philosophy or go-to leadership style? Has it changed over time?

12. Do you think leading a rural hospital requires you to adapt your leadership style? Do you feel that the environment itself shapes you as a leader?

13. Do you think your actions as a leader had a long-term or even permanent effect on your environment, the hospital, and the community you serve?

14. How do you define success as a leader of a rural hospital? Knowing what you know now, would you do it again?

15. Please confirm your demographic info: Age, Gender, Ethnicity.

Appendix B: Exemplary Quotes

First Dimension: Attenuators Within Extreme Contexts

Community Connectedness

I would say probably our biggest resource that we have is probably the dedication to the community. So, if you have local people that work here, they're very dedicated to the rural hospital and, and maybe, I don't know, maybe not maybe as much as in your urban areas, your bigger cities because there's a lot of turnover in those areas. Where here you tend to have long tenure employees. (CEO001)

It's your friends and neighbors that you're taking care of. It's the person you went to high school with or you know your next door neighbor's mom or whatever it is. And so yeah, I think they absolutely do [go above and beyond] because they have a vested interest in each other. They are a community. (CEO008)

There are so many instances of patients coming to the ER, coming into radiology, to your lab or the clinics that they have in their neighborhood, they were their schoolteacher, they were their parents. There's so many personal connections. But you don't get that in the city. (CEO009)

We clearly, I think, have the ability to, in so many respects, really be better connected to our community, and in terms of what they need, how to serve them. One of the things that I love about we're all one of the many things about rural is we also have the ability to be

nimble. Large systems have layers of stuff that you have to get through, and we can see a need and do it. The thing that would never would not happen in a tertiary, for example. (CEO018)

In my mind, what sets rural hospitals apart is that we're really here to take care of an entire community. In my mind, I consider one of the one of the biggest privileges of my job is caring for my family, my neighbors, my friends. And you know, that's a huge responsibility, but also it's a huge privilege. (CEO019).

Citizenship Behavior

We put - during COVID - we put two parking spots as close to the building as we could. So, people without internet could come jump on our guest network from their car. (CEO007)

They know they can still call me if there's an IV that nobody can start. I'll be like, can you try? (CEO014)

We have a gentleman. His name is XXX. And he is passionate about wildlife, as well as plants. And he especially loves hummingbirds. So, one of the things [he] did to bring a little bit of joy and spark to our employees, but more importantly our patients, is he put little hummingbird feeders in front of every acute care window so they can see the birds fly by and stay for a period of time. (CEO016)

We had one incredible donor who threw down a million bucks and said, I'll give this to you guys so you can renovate. (CEO016)

When my physical therapy team found out that we had a transitional care patient that was ready for discharge, and he was afraid to go home because was he really going to be able to manage and take the skills that he was getting rehab here or back home. My OT and PT packed him in the car and said, "come on." I mean at his house they walked around and checked out the environment. Showed him help with work helped him navigate right back and potty and go back in his bed. Now, can some tertiary hospitals somewhere manage something like that? Probably not. (CEO 018)

During COVID I delivered trays, I cleaned rooms, I did kind of whatever. And so, I've always, I think that's one of the things I love about rural because I love making rounds. I love, so, visiting with the patients. (CEO018)

Second Dimension: Intensifiers Within Extreme Contexts

Vacuum of Resources

Definitely challenges, and they are definitely different not only from staffing issues, but the resources that we have to accommodate the needs that we have. So, resources is the big issue in the rural areas. (CEO001)

Obviously, with the geographic situation we have here as you know, we're about two and a half hours from those tertiary facilities in the city. This is redefined will may [*sic*] and so that the challenges of being a CEO in a hospital [that] is located two and a half hours from that the next the highest higher level of care is extremely difficult. (CEO009)

So just the location of rural hospitals are [*sic*] a challenge in general compared to two or more Metro facilities. I think that's one of the biggest challenges as well as getting physicians and other health care staff to come to the rural communities. (CEO014)

I think one of the things that makes the job harder is, is I don't have a better, I don't have the right term for it. But I'll say almost an isolation factor. Especially for new leaders in rural markets, right?. Because I came from, I came from a history of working for systems and so I had resource, and I have a plethora of resources available to me subject matter experts, knowledge holders, both within my system and within other systems and coming into a rural community as a CEO you don't have that. And so I think that has that was something that was somewhat underestimated by me in terms of the complexity of rural healthcare. (CEO017)

(…) think some of the challenges are lack of or limited resources, sometimes lack of resources, whether that be technology, infrastructure, staff, physicians, those types of things. (CEO017)

External Regulators

(…) that time, we were we had a very, very strong bottom line. But during that era was right after 1997, the Balanced Budget Act and so again, we had reductions in Medicare and Medicaid. (CEO002)

Every two years you have elections, seven public elected commissioners and surely enough to [*sic*] naysayers were like that to the board. Yeah, that person got fired too. I fired that person too. So they run for the board. and they get elected to the board. So you know, I still had five to two but still it makes your life miserable. (CEO003)

They can they absolutely can especially if you have one or two board members who you know have a specific agenda that they want to carry out. The [*sic*] we recently had a situation where a board member who's just stuck on this needs to be the mandated minimum wage for employees in the hospital. And it's not reflective of the minimum wage acceptable in the community. It's not the same as what the state requires. Right? And if we agreed and went along with that number, it could break the bank at the hospital but yet this person who's supposed to be a fiduciary for the organization wants to you know, absolutely wanted to stand on that principle. (CEO008)

Sadly, it is appearing that the funding we received during COVID is now adversely impacting as I think I told you in our operational discussions under Omnibus Budget

Reconciliation Act, we are receiving at least two years that appears we are ineligible for some of those payments because of the COVID money they gave us. (CEO011)

One of the good changes is telehealth. Medicare, they're still threatening at the end of 2024 to no longer in the pay for telehealth. (CEO016)

Third Dimension: Recursiveness of Leader-Context Relationship

Extreme Context Impacts Leader

But your most valuable thing is your human capital, and how you recruit and retain that is, is critical. So, you have to be adaptable to those generational changes with again, it's not always so easy. What motivates me now probably isn't what motivates a 22-year-old. (CEO001)

The best learning opportunities I've had is when we've tried to, you know, accomplish something, and it's like, oh, that kind of didn't pan out the way we had hoped. What are we going to do next time? " (CEO010)

"I think we're always adapting. You know, I just think we get wiser you just get wiser with what you know [and] what you do. (CEO019)

Fishbowl

I think I'm still learning and working through that and, you know, being careful about you know, what you say and how you say it and you know, the people that are around you and to some degree are always I'm always aware of my CEO hat here. I don't feel like I've ever taken that hat off, as most CEOs can. And so I'm still figuring that out. (CEO017)

My husband is equal if not more well known than me. And so here's the two of us in very different roles, but it would be hard to find anybody who doesn't know at least one of us. And so it can be really good. It also can be really hard and it can be especially hard on our kids, you know who just feel a tremendous amount of pressure. (CEO019)

I would say in a large organization from the community perspective, it's a whole different animal because they are walking down the street or going to the grocery store and running into people that you don't know, but know who you are, because they see your picture in the paper, because that's all the local paper wants to cover is stuff going on at the hospital. (CEO007)

My husband and I we have five children so everybody knows me from the school. And so I'll have teachers that send me messages through Facebook asking me healthcare questions, or hey, do you do these? Can you do these X rays at your hospital? (CEO014)

Leader Impacts Extreme Context

If an organization's not making money, it forces him to dig deeper into their expenses or their revenue sources to see where those are coming from sources and uses of cash or whatever it is, and, and really scrutinize it to be sure that they don't end up in same situation. (CEO008)

Especially during COVID, since we were able to get a lot of COVID vaccine leads to have, you know, free vaccine. We would do [clinics] at the school for the students as well as the community. I think that made a big difference. I think it made a huge difference in how the community members seen us as a hospital and a resource for their for their health care (CEO014)

I feel like I've had to really create connections with other rural CEOs, both in Washington through you know, we're shown other organizations and, and others across the country to kind of get that support. (CEO017)

I hope so. I mean, I think that I think that I have just… I know right now, what's the building of our new wing? I mean, that's going to be there for a long time serving the community. And I think that are building ability to bring that project to completion is been pretty substantial. I hope I also have through the culture that we continue to create here in this organization because that's reflected in all of the care that we provide in every department across the organization. So, I hope so. (CEO017)

I do. I mean, when I came, we had a small hospital and nursing home. If you look at our website I [*sic*] We have a totally new hospital campus. New medical building and new hospital a converted our previous campus into senior living so we have 42 supportive living apartments. We have two memory care houses first of their kind in the state of Illinois focusing on how you take the right kind of care with someone with dementia. And we had one specialty when I came and I don't know we've got 12 to 15 specialties who come now and so my commitment to the community was I want healthcare to be better. The day that I leave than the day that I came and I'm hoping that I've positioned our organization for sustainability. So, I hope Yeah. (CEO018)

Mutual Impact

The community recognizes that they have to protect the asset, just as we have to protect the asset. It's a group effort. Yeah, yeah. You're part of the community. And the community doesn't exist without us and vice versa. (CEO016)

Fourth Dimension: Environmental Jolts

Types of jolts

Recruitment is a challenge. It took us seven years to recruit a new primary care physician (CEO002)

Expenses are going up 10% a year for three years. (CEO003)

COVID. Big time. We had one of the first five cases in [our] state, in our community, when they declared it. I had to use every tool that I ever learned, every experience I've ever learned, to try to calm everybody down and keep us moving forward. (CEO013)

Jolt Characteristics

Oh yeah. Absolutely You know that certain generation was getting closer baby boomers getting closer to retiring which was pretty much workforces and they just wasn't the school's you know what's up I'm not enough. And yeah, so then you had COVID hit and you had, you know, these nurses that were close to retirement say, forget it. I'm retiring. These young nurses coming out, I was like, well, maybe I don't really want to be a nurse. Right? And then, yeah, it was scary because they had no clue. And then I think the deck, which was going to be interesting, so we've been in a company for three years going on four. So all these new nurses that came out, are used to these exorbitant wages, honestly, and I'm not saying that nursing didn't probably need to be recognized a little bit more as far as a waste fails, because I do think they did, I think is just to the point where it's not sustainable now. So yeah, so it's going to be interesting because those nurses have not been under normal wages. You know, they're used to making these exorbitant wages, some of them. (CEO001)

I say frequently and of course, it's all it's an order of magnitude. We all know that our personal lives have jolts big and small. I think every organization I don't care if you're a business person in retail or construction, there are cycles. I mean, they are often mini

jolts. And then there are some that are more seismic and high impact than others. (CEO011)

And the COVID backlash for us, impacted us from a cash perspective staffing, because it was really in the years after COVID where we saw a much greater staffing shortage than we did during 2020. (CEO016)

Fifth Dimension: Post-jolt Outcomes

Organizational Changes

I think we shifted to some telemedicine in the clinics where we probably wouldn't have shifted that soon into that model. I think it's the wave of the future but I think it forced us to move quicker in those areas. (CEO006)

You know, I think I think the good part is that we you know, combination of some of those experiences and learning combined with our strategic planning and just I mean, even post pandemic thinking where all of the small hospitals like ourselves are financially struggling, is looking for opportunities constantly. (CEO010)

But I know it's one of the good things that did come out of COVID Was it accelerated digital health. And I'm excited about that because that will really help rural health. (CEO016)

Overall, I felt like physicians were coop [*sic*]. I mean, they were engaged trying to make us a better place. It was not like that my first 15 years there as CEO, it was like a war gym. So that actually, that whole episode over about a five-year period of time was culturally changing for our medical staff, which was me to decide to stay there. I was going to leave because I was just sick of the medical staff. And so I ended up staying there and being CEO for 25 years that would not have happened if those things those bad things hadn't happened. (CEO005)

And there was a lot more departmental-ism prior to COVID, where I think [I] see more and more camaraderie [now]. (CEO016)

Survival

That we can continue to be here is the to me… is just the, you know, when you're looking at not even just the number of nursing homes that have closed, the number of rural hospitals struggling. Our number one goal is sustainability. (CEO010

I just have to be able to put the process in place like bring the right process for us to effectuate change and do the things that we need to do to continue to maintain viability. (CEO012)

I really think the success is ensuring that you truly are connected with your community and you are meeting the needs of the community. And we remember, you know, the

mission I mean, yes, you have to have a bottom line and all of that. But be willing to make the right decisions on behalf of your team and your community. I have an ethical and fiduciary responsibility to absolutely help lead the organization for the benefit of the community also knowing that we are the major economic driver in our community. And I have families counting on us being here in our small rural communities going to stay viable. (CEO018)

The financial state that this hospital lived in when I joined It, and it was on the brink of make it or not make it. (CEO019)

So three and a half years ago, the hospital was failing. And frankly, were it not for the willingness of the county commissioners to engage the management company, whether it was us or somebody else. They should have probably locked the doors and thrown away the keys there. The hospital was at nine days, six weeks before I arrived there, nine. I mean, that's, you know, it's public information. That's crazy. Yeah, nine days cash. Accounts Payable. (CEO008)

Sixth Dimension: Adaptive Leadership Style.

In Response to a Jolt

I think at the end of the day, I'm for my team to continue to do what they do and think they need to feel like they've got a leader that will lead them through the tough times. Not

just celebrate, you know that we got five stars again, we're gonna have a pizza party, but that they can count on leadership in terms of decision making. (CEO018)

What we did [during COVID] was all hands-on deck, but under our incident command. (CEO011)

In Response to Extreme Environment

And people are amazed when they're, you know, coming up for a visit, you know, that we treat them well. You know, it's not overboard. But they get to they get to talk to the senior leadership team. They, they see that the senior leadership team is, you know, walking the halls and talking to them. And, and that we have even people say, I don't know how to describe this necessarily that even when they walk in the door, it feels different here. (CEO007)

You know, about that going the extra mile, I think our people are committed, we, you know, kind of one of our, you know, to employment taglines is, you know, it feels different. (CEO007)

If you're visible in normal operations, you'd better triple down in crisis. If they see that the CEO there at nine o'clock at night, every night for weeks. They're gonna be more prone to do the heavy lifting to understand the nature of the crisis." (CEO009)

I went around every department every day. I would walk many, many times, sometimes four times a day. (CEO11)

I enjoyed a brief regular cadence of leadership meetings with my entire leadership team. But in a rural facility, different from my previous role. They're working leaders, and so they they've also got to be bedside. CEO020

Transparency

Maybe you can't fix everything. But sometimes it's just literally the small wins at the end of the day. And those small wins, just you know, add I guess communication transparency and being there and willing to pitch in. (CEO002)

I believe strongly in making sure my staff are aware, letting them know what's happening. I'm being truthful, being honest, following up on stuff. (CEO006)

[We managed through] transparency to the extent we could, obviously there were a lot of attorneys involved. We opted to communicate to the extent we could. We went to a community hall meeting, and I stood up in front. There were over 100 people who showed up, it was pretty intense. (CEO009)

I'm going to make sure they know it first and they're going to know why that decision was made that it wasn't just the you know, admin level, we had a meeting and made a

decision on things. So, I think just being transparent and being ready to defend every decision you make, is probably the biggest thing that's come out of me being rural. (CEO015)

Increased communications

I think that the staff understands why we're doing what we're doing, it makes that a little bit easier in the sense of just other than, you know, you just have to do this. So, I think that communication is key with it. Especially with the decreased reimbursement. It's just, it's tough. (CEO001)

I would say the biggest thing is, is communication. I, you know, no, none of us probably like what we're seeing in healthcare decreased, you know, reimburse more compliance, you know, that we continue or having to submit information from none of us like that. But in saying that, if I think that the staff understands why we're doing what we're doing, it makes that a little bit easier in the sense of just other than, you know, you just have to do this. So, I think that communication is key with it. (CEO001)

My leadership style is completely, was completely different than my past administrator style. I was fully transparent. I feel like I was an effective communicator. (CEO002)

So sometimes I regret this, everything has my cell number. So, they can call me anytime a day, anytime in night. Trust me, they called me at two or three in the morning or text

me and sometimes I'm like, gosh, what have I done, but you know, that I've always told them and my door's always open, and if they need me, I will answer. So, it's just knowing that hopefully they realize that true to that and I know I answered just as soon as I can, and try to help them with whatever issues they have. (CEO014)

I try to have really strong communications and relationships and, you know, one of the it's always that anything that I've always really relied on. (CEO019)