



Article Women's Leadership and COVID-19 Pandemic: Navigating Crises through the Application of Connective Leadership

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Abstract: International and national crises often highlight behavioral patterns in the labor market that illustrate women's courage and adaptability in challenging times. The COVID-19 pandemic and resulting changes in the workplace due to social distancing, remote work, and tele-communications protocols showcased women's power of authenticity and accessibility (interpersonal and personalized experiences) to engage with their constituents effectively. The catalyzed this research was our desire to underscore the importance of studying the impact of COVID-19 on women leaders. The COVID-19 pandemic brought to light specific challenges and disparities women faced in the workplace. It has been asserted that women leaders substantially benefit businesses and organizations and we wanted to test this out through the practices of our research participants. Decades of research reveal that women leaders enhance productivity, foster collaboration, inspire dedication, and promote fairness in the workplace. This article introduces the feminist Connective Leadership Model (CL) an integrative leadership model and one informed by early feminist theory for understanding women's leadership during the COVID-19 pandemic. A mixed-method study of select US women leaders before and during the COVID-19 pandemic revealed the CL model and its efficacy for adaptive, inclusive leadership in various contexts. First, this article highlights the impact of the COVID-19 pandemic on women's leadership and behavioral response to the crisis through the lens of the CL model. Second, this article delves into challenges the women leaders faced, including adaptive challenges, isolation, team management, increased caregiving responsibilities, and gender-related disparities. Third, this article reframes women's voices articulated through a crisis management leadership framework coupled with an understanding and application of the behaviors defined through complexity theory which are aligned with the CL model. Finally, the article discusses the four 'As' of crisis leadership: authenticity, alignment, awareness, and adaptability. The application of the CL model provides an effective framework for determining the most appropriate leadership behaviors within the complex challenges of a crisis; it enables the leader to focus on personal, employee, and organizational well-being.

Keywords: women's leadership; crisis leadership; connective leadership; COVID-19 pandemic; adaptive leadership; complexity leadership; followership

1. Introduction

We are currently experiencing continuous and complex crises impacting every sector worldwide. In this article, we explore the many ways in which women leaders were



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Copyright: © 2023 by the authors. Licensee MDPI, Basel, Switzerland. This article is an open access article distributed under the terms and conditions of the Creative Commons Attribution (CC BY) license (https:// creativecommons.org/licenses/by/ 4.0/). challenged by internal and external forces brought on by the COVID-19 pandemic, and who have pivoted, adapted, and ultimately transformed their leadership practice to best serve their constituencies [1]. The authors acknowledge the persistent pursuit of understanding the distinctions between women and men concerning biologically influenced and socially constructed factors, particularly leadership styles. The participants in this study identify as women, and the writers embrace hybrid neologisms like "gender/sex" [2] and use these terms interchangeably. The interest in studying COVID-19's impact on women arises from the recognition that the pandemic has highlighted specific challenges and disparities faced by women, emphasizing the need for behavior frameworks to promote fluidity in leadership roles [3].

The authors have conducted a mixed-method analysis of women's leadership from before and during the COVID-19 pandemic. Through our own experiences in our respective fields of work, we were acutely aware that COVID-19 dramatically impacted women in multiple areas of their lives. We specifically wanted to understand better how women's leadership behavioral profiles have been reinvented during this difficult period. By examining the challenges and experiences of women across sectors through the lens of the Connective Leadership Model [1], we can shed light on the dynamic circumstances they faced during the crisis and how those circumstances influenced their personal and work relationships.

We employed the Meta-Leadership Model for crisis leadership [4] as a basis to better understand how leaders and their organizations can manage a crisis and become stronger, as well as how the dynamics of change can lead to the timely and adaptive modification of leadership behaviors. The impact of the COVID-19 pandemic on the leadership and work life of women in this study who serve on the front lines in various sectors such as education, health, government, and nonprofit organizations was profound and worthy of study.

In this article, we explore how these women mustered the courage to look deeply within themselves, understand the people they serve, and the context in which they serve to determine adaptations that were authentic to who they are and what they bring to their constituents. They chose to be more accessible and accountable to those who needed them and in new ways, previously outside their arenas of work and life. The crisis became a force to better understand that we live in times where "inclusion is critical and connection is inevitable" [1] (p. xiii).

International and national crises often highlight behavioral patterns in the labor market that illustrate women's courage and adaptability in challenging times. The COVID-19 pandemic and resulting changes in the workplace due to social distancing, remote work, and tele-communications protocols showcased women's power of authenticity and accessibility (interpersonal and personalized experiences) to engage with their constituents effectively [5–10]. Novotney [3] underscores the importance of studying the impact of COVID-19 on women, which catalyzed this research [3,11]. The COVID-19 pandemic brought to light specific challenges and disparities women faced in the workplace [8]. Eagly asserts that women leaders substantially benefit businesses and organizations [12–14]. Decades of research reveal that women leaders enhance productivity, foster collaboration, inspire dedication, and promote fairness in the workplace [12–14]. Moreover, Eagly's [12] research has significantly contributed to understanding the challenges women leaders face due to the cultural incongruity between societal expectations of women as communal and leaders as agentic [13,14].

Even with the best of plans for how to routinely address problems, crisis moments will happen, which call for complex problem-solving skills—ones that require the leader to move well beyond their customary sphere of authority and influence—to evaluate impact, determine how to handle a variety of situations effectively, facilitate adaptive responses, and be resilient [3,9,10]. How a leader thinks, behaves, and acts will determine the outcome. A crisis like the COVID-19 pandemic demands that the leader have at their disposal a

repertoire of leadership behaviors to engage and deploy resources and connections critical to how the crisis will be defused and managed.

The emotional impact of the pandemic on women and their work is another crucial area to study. Exploring the psychological and emotional toll the pandemic has taken on women in the workplace will help us to understand the long-term effects and the importance of supporting their mental well-being [11]. This emotional toll can include discussing the challenges of balancing personal and professional responsibilities, coping with increased workloads, increased caregiving responsibilities, and managing stress, such as "Zoom fatigue" and burnout [12,13].

Kolga discussed how the change from physical locations to a virtual "online platform" required creating "new ways of working within which the balance of home life and organizational priorities became challenging" [15] (p. 406). Carli was prescient in her sense that rather than a temporary solution, telecommuting "may place an even greater burden on women who have more domestic responsibilities than men and may face more difficulties balancing paid work and family obligations while telecommuting" [14] (p. 647).

Conversely, there are also new levels of balance and resiliency that can only be realized after emerging from a crucible experience, like the COVID-19 pandemic. Our women leaders describe how they transformed themselves and their leadership model despite the extraordinary challenges they faced. "Fulfilling your potential as a leader requires a keen awareness and understanding of how your personal experiences—your decisions, stumbles, and triumphs—got you to where you are now. Each prepares you for the moment when 'you're it" [8] (p. 3).

In our mixed-method analysis of women's leadership from before and during the pandemic, we describe how women leaders have used the power of acknowledgement and humility in their communications both within and outside of their immediate team or community of people—communications of consequence that are all important in turbulent times [16].

Periods of crisis often lead to women being called upon to serve our communities in roles formerly reserved for men. Wars, pandemics, and environmental and natural disasters have all caused women to step up and step into leadership roles that they were frequently forced to surrender as peace and order were reestablished [17]. The COVID-19 pandemic had a similar impact on our women leaders.

We launch our article with a brief description of connective leadership [1], followed by tenets of crisis leadership, and then share our findings. This study was presented at the International Leadership Association's 6th Women and Leadership Conference in Portsmouth, UK, in June 2022. We were encouraged to publish our findings and offer this article to meet that expectation.

1.1. Connective Leadership

The genesis of the Connective Leadership Model [1] was the appointment by the Carter administration of Dr. Jean Lipman-Blumen to a federal government role to study the reasons why women were not being promoted to leadership roles in the U.S. government. Through this initial investigation, Dr. Lipman-Blumen discovered that women often led by mentoring others, and she called this the vicarious leadership style [18]. From this first discovery, a broader, more comprehensive set of leadership behavioral styles emerged [19], along with the realization that women differed from men in how they prioritized their leadership styles. This work has continued to support scholars and practitioners in understanding the behaviors that leaders use and provided access to the broadest set of leadership profiles over the past 45 years. What emerges in this study is that the agility needed to adapt to new leadership challenges brought on by the COVID pandemic is essential to our participants' resiliency through the crisis.

To understand the foundation of our study, we will offer a brief overview of the Connective Leadership Model [1] (CL) and the leadership behaviors that are measured through the Achieving Styles Inventory (ASI) that have been developed from this model.

A "connective leader" is any individual who uses the appropriate knowledge, skills, and temperament to lead other individuals who differ according to various dimensions (e.g., gender, age, race, nationality, religion, political persuasion, as well as educational and/or occupational background) to work together effectively. Connective leaders understand the complex, broad-based diversity, and technology-enhanced interconnections of their constituents. In a world where interconnectivity has rapidly become global, connective leaders are adept at guiding groups of individuals who differ significantly in myriad ways. The authors of this study felt that the CL model as ideal for research on ways in which women leaders respond to crises, such as the COVID-19 pandemic.

The Connective Leadership/Achieving Styles Model is based on the premise that these leadership styles are learned behaviors which can be used in various combinations. Moreover, training helps individuals to understand which behaviors are most appropriate for any given situation. Both training and practice also enable individuals to improve their skills in using these best-suited styles. The participants in this study were all educated in the CL model prior to the COVID-19 pandemic and had taken the ASI at that time.

To enable groups of diverse individuals to work together effectively, connective leaders call upon a nine-fold repertoire of behavioral strategies ("achieving styles") to achieve their tasks and accomplish their goals. These achieving styles were studied and described in the 1980s [19] and have been studied across international boundaries, with cultural influences affecting the frequency, strength, and circumstances under which these nine behaviors are implemented [20].

Connective leaders draw upon the entire nine-fold repertoire of achieving styles, in each case depending upon their interpretation of situational cues and their expectation that certain styles will increase their odds of success. By contrast, most other leaders, as well as individuals generally, rely primarily upon their past successes, calling mostly upon a relatively limited subset of previously effective achieving styles.

1.2. The Achieving Styles Model

The nine styles are grouped into three sets of domains: direct, instrumental, and relational. Each of these three domains subsumes three styles, resulting in the nine-fold achieving styles repertoire (see Figure 1).

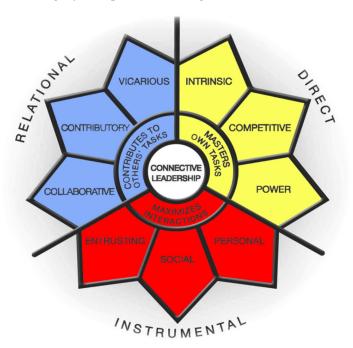


Figure 1. Connective Leadership Model (Reprinted with permission from reference [1], Copyright Year: 1996, Copyright Owner's Name: Jean Lipman-Blumen, Ph.D.).

A brief overview of the domains and dimensions of the Connective Leadership/Achieving Styles Model [1] is offered in Table 1 below. For a more thorough explanation of these elements, please consult Appendix A.

Table 1. The Connective Leadership Model domains and dimensions.

DOMAIN/Dimension		Description
DIRECT SET		Acts directly on the situation. Controls both the inputs and the outputs of the endeavor.
	Intrinsic	Self-motivated, incorporates a high standard of excellence for self.
	Competitive	Derives satisfaction from performing tasks better than others.
	Power	Prefers to organize, be in control, and manage people, resources, and processes.
INSTRUMENTAL SET		Uses self and others as instruments for achievement. Controls the inputs and begins to share the outputs of the endeavor.
	Personal	Uses their personality, charisma, appearance, intelligence, and background, to attract others and further their goals.
	Social	Engages other people with relevant training, skills, and/or experience in achieving their goals.
	Entrusting	Empowers others, even those with no specifically relevant training or experience.
RELATIONAL SET		Achieves through relationships. Often sharing both the inputs and the outcomes of the endeavor.
	Collaborative	Joins others (singularly or as part of a multi-person team) to increase the odds of success.
	Contributory	Works behind the scenes to help others achieve their goals.
	Vicarious	Derives a genuine sense of accomplishment for the success of others with whom they identify.

In sum, these nine achieving styles that constitute the Connective Leadership Model [1] represent the available repertoire used effectively by connective leaders. The styles may be utilized in various combinations. While no individual style is intrinsically better than any other, the purpose of the Achieving Styles Model is to identify leadership strategies appropriate for each specific situation. Moreover, the Connective Leadership Model [1], based upon the nine achieving styles, describes the wide range of behaviors for promoting effectiveness in a world pulled in multiple directions by broad-based diversity and increasing interdependence.

The Connective Leadership Model [1] has wide applicability and flexibility in helping to assess and direct individuals, teams, and organizations to achieve greater and more fulfilling success through its emphasis on diversity and interdependence. This model of leadership is useful in understanding all individuals' profiles, whether they are in management/leadership positions or not, since it assumes that all individuals accomplish their tasks and achieve their goals through their Achieving Styles Profile. The authors of this study leveraged the fact that the participants had been educated in this model and had taken the ASI previously to explain how they had adapted to the COVID-19 pandemic. This also ties in well with the crisis model employed in this study.

1.3. Crisis Leadership

Convinced that the Connective Leadership Model [1] is a highly effective model for leaders during good times and difficult times, especially the COVID-19 pandemic, we identified a crisis leadership model to support our research project. We believed that this additional lens would bring focus to our study of the competencies and skills necessary for leaders as they navigate a crisis. Sriharan et al. [21] conducted a meta-analysis of 35 crisis leadership and pandemicrelated articles drawn from business and medical sources published between 2003 (since SARS) and December 2020. The purpose of this study was to identify the leadership skills and competencies deemed critical during a pandemic. The analysis resulted in the creation of a model that organized crisis leadership into three thematic categories, task, people, and adaptive competencies, while recognizing the relationship with and importance of identifying politics, structure, and culture as contextual enablers and/or barriers [21], p. 482. The three overlapping competency groupings were illustrated and described as follows:

- 1. Tasks: preparing, planning, communication, and collaboration
- 2. People: inspiring and influencing, leadership presence, empathy, and awareness
- 3. Adaptive: decision making, systems thinking/sensemaking, and tacit skills

Sriharan et al.'s [21] meta-analysis reinforced that of Marcus [4]. This earlier work evolved through the founding and research work of the National Preparedness Leadership Initiative (NPLI). The formation of NPLI emerged from a gathering of government leaders and faculty from across Harvard University post-9/11, who met to gain an understanding of and plan for a more effective national response to crises [4] (p. ix). This work has been applied to the Boston Marathon bombings as well as the COVID-19 pandemic [4].

Through their extensive studies, Marcus [4] created a transformational crisis leadership model, Meta-Leadership [14], that consists of three dimensions of leadership (see Table 2) used to describe the various leadership behaviors and means (or tools) in a crisis to "seize the opportunity" as leaders to "find and achieve a complex equilibrium that extends [beyond a single leader or organization] to the broader community" [4] (p. 19). Circling back to the Connective Leadership Model [1] and linking these two models, the leader must understand the complexity and dynamic nature of a situation and modify their leadership style accordingly to see the opportunity and challenges ahead. We believe that this reciprocal relation validates the Connective Leadership Model [1] as one that can be used in a crisis and beyond; one that embodies the competencies, skills, and behaviors included in other studies, especially compared to the Meta-Leadership Model [4]. Table 2 below compares the two models.

Table 2. Comparison of the Meta-Leadership [4] and Connective Leadership Model [1] and their dimensions.

Crisis Leadership Meta-Leadership Model Key Elements	Connective Leadership Model Key Elements
The Concept: "Meta-leadership is the idea that in complex systems, a big part of leadership is the capacity to work well with and help steer organizations beyond one's immediate circle" [2] (Foreword). "Forging the connectivity enabled them to <i>lead down</i> to reports, <i>lead up</i> to their bosses, <i>lead across</i> to colleagues within their organization, and <i>lead beyond</i> to the people outside their organization's chain of command they were together" [4] (p. 20).	The Concept: "Connective Leadership [™] is a method that leaders can consciously and systematically use in several ways. The model allows leaders to assess not only their own leadership styles and those of others but also the leadership behaviors most needed in any particular situation and the leadership styles most valued in each organization" [1] (p. 13).
Meta-Leadership's Dimensions:	Connective Leadership Domains:
The Person: Embodying emotional intelligence and a capacity to engage, bonding work with unity of purpose.	Direct Set : Behaviors that confront their own tasks individually and directly.
The Situation: Ready for what could come next with little notion of what it might be.	<u>Relational Set</u> : Behaviors that work on group tasks or to help others attain their goals.
The Connectivity of Effort: Learning to finesse connections in order to better coordinate and be responsive and adaptive.	Instrumental Set: Behaviors that use personal strengths to attract supporters, create social networks, and entrust others.

The Connective Leadership Model [1] and the additional lens of the Meta-Leadership Model [4] provide leaders with tools and processes to achieve high levels of authenticity, accountability, accessibility, and adaptability as they lead in a crisis.

Their behaviors "represented a blend of task and relational skills" described as elements of complexity leadership theory and their capacity to "initiate the development of 'care' behaviors as part of an androgynous approach to leadership" [15] (pp. 406–407). Through their understanding of the complexities or context of their situation, they were able to facilitate adaptive responses individually and through their teams, allowing for innovation, learning, and growth—"adaptive space"—giving them the opportunity to achieve a variety of system changes [10] (p. 403).

As in Kolga's 2023 study, our women leaders demonstrated indispensable behaviors during the COVID-19 pandemic for effective communication and relationships that included "nurturing, empathy, cooperation, sensitivity, and warmth, behaviors often attributed to women's or feminine leadership" [15] (p. 405); behaviors consistent with Eagly's [14] gender social role theory that "women are communal and men are agentic" [22]. However, our women leaders, as noted above, utilized a "blend" of leadership behaviors embodying a "blended androgynous approach" [15] (p. 409). They are leaders who employed the broadest and most flexible leadership repertoire to meet the complex challenges manifested through a variety of contexts, meeting the demands of leadership in the Connective Era.

The participants in our study were able to "seize the opportunity" as leaders to "find and achieve a complex equilibrium that extends [beyond a single leader or organization] to the broader community" [4] (p. 19), employing the broadest and most flexible leadership repertoire to meet the complex challenges of the Connective Era.

2. Materials and Methods

We performed a mixed-method study employing the Achieving Styles Inventory (ASI) and an interview protocol with the 15 women participants; it was primarily a qualitative study with the psychometric inventory being used as a framing tool (see Appendix B to see a sampling of ASI items and Appendix C to see the interview protocol). Each participant completed the ASI prior to the onset of COVID-19, within 10 years prior to spring 2022 and again during that same spring before the interviews were conducted. The interviews were all conducted over a two-month period in the spring of 2022. The ASI results from the pre- and post-tests were shared at the time of the interview as a heuristic and a catalyst for the dialogues that ensued. The interviews were conducted via Zoom, and were either transcribed or recorded in typed notes.

2.1. Data Collection

As researchers involved in this mixed-methods research project, we acknowledge the potential for power differentials and biases that may arise from our active roles as instructors or trainers when administering the Achieving Styles Inventory (ASI) to participants. We rigorously adhered to ethical guidelines [23] (p. 2) throughout the study to address these concerns. We employed an "assessment as learning" [24] approach during the feedback interviews, prioritizing the educational value for participants over solely gathering data for research purposes, thus minimizing potential power dynamics. Furthermore, to mitigate any biases, different researchers led discussions with different participants, and we cross-checked each other's consultation transcripts during the coding process to ensure consistency and reduce individual perspectives or biases. We did not seek full IRB approval given the nature of the study design; however, we committed to ethical conduct, including safeguarding participant well-being, ensuring confidentiality, and obtaining informed consent throughout the research process. These measures contributed to the validity and reliability of our study, and we remained fully transparent about our roles as researchers and instructors to address any potential researcher influence on the study's outcomes. (See Appendix D for a more thorough discussion for not seeking Ethical Review; Appendix E to view a copy of the Connective Leadership Institute's Participant Privacy documentation; Appendix F to review the research team's Consent to Participate in Research script.).

In early 2022, identified participants (who had completed the ASI prior to 2020) were asked to participate in an hour-long interview. Prior to the interview, the researchers requested that the participants complete the ASI, based on their current position and situation. The researcher/interviewer reviewed and compared the ASI taken pre-COVID-19 and the recently completed post ASI. The interviewer led the participant through several reflective questions about how COVID-19 impacted their work and personal life situations and how they responded, pivoted, or adjusted their leadership behaviors in response. Then, the interviewer presented the two ASI profile graphs and facilitated a dialogue on the observations of the shapes and sizes of the two graphs and the relationship with the reported situations and pivots.

2.2. Analysis Approach

2.2.1. Qualitative Analysis

Interviews were transcribed and summarized by the interviewer and then the research team reviewed all the interview data, with each member coding independently and then convening as a team to review. The scores from both the pre and post tests were compiled and descriptive analyses were performed. The two ASI profiles across the sample were reviewed for alignment with the emergent themes of the qualitative analysis.

2.2.2. Quantitative Data

The quantitative data were analyzed using simple descriptive statistics and are outlined below. Since the 'N' of 15 is so small and the participants had so little in common, we saw no value in attempting to calculate any form of statistical significance. We were simply looking for patterns of shifts in ASI scores as a result of the pandemic that would be explicated through the interviews. Again, the ASI pre- and post-test results were used as a framing or organizing fulcrum around the construct of adapting leadership as a result of the pandemic.

2.3. Participants

Women leader participants ranged in age from their 20s to their mid-50s, and represented a variety of ethnic backgrounds. Participants worked in all sectors: most (10) were from the private sector, four were from the education sector, and two were from the nonprofit sector. All held positions in various leadership and management roles. Three were business owners; five had been promoted and five had changed jobs/companies since the onset of the pandemic. Given inherent time constraints, we identified a pool of past students and trainees from which to draw and used a sampling of convenience to recruit participants, as the researchers have all employed the CL model and the ASI measure in their teaching and training.

3. Results

The results were framed in the context of the achieving styles of the Connective Leadership Model [1], as this model is based on a broad repertoire of behaviors or behavioral strategies. This content analysis revealed several interesting trends across the small sample. Most participants indicated that the pandemic, coupled with increased stress at work and often exacerbated by increased stress and the load induced by working at home while balancing family care, led to extreme levels of stress and risk of, if not actual, burnout. This apex of stress typically led to a set of forced shifts—many external and others that were internal. The rapid shift to remote work manifested in a wide array of implications. New technology challenges included developing new home office setups and new ways of interacting and working with colleagues and clients. Furthermore, the new reality called for a different type of collaboration.

3.1. Pre-Pandemic Achieving Style Leadership Profiles

A review of leadership profiles indicated that achieving styles prior to the pandemic indicated a tendency to rely on one or two styles in their behaviors, with a clear pattern and preference for the direct and relational domains over the instrumental domain. More specifically, the power direct (top style for 54%) and contributory relational styles (top style for 62%) were most predominant. This substantiated the interview trends in which the women noted leaning towards being in charge or "doing things the right way" or wanting to help others succeed. Several mentioned that while they felt they were effective in their use of various leadership styles, they often leaned on the styles with which they were most comfortable.

3.2. The Reality of COVID-19 and Societal Stressors Facing Leaders

Participants often spoke about the emotional burden personally and professionally of the various external stresses due to the pandemic, political, economic, and social discord, and the chaotic and stressful situation of remote work. Furthermore, they mentioned the difficulty in cultivating relationships, providing clear communication, building teams, and supporting staff in striving for a healthy work–life balance amid the added burdens of working at home and caring for children and family members. Most mentioned that Zoom fatigue and a lack of boundaries between work and home led to overworking, burnout, and other mental health and physical health fatigue. These were coupled with descriptions of varying prior toxic work environments, exacerbated by the disruption of COVID-19 that restricted innovation, did not engender feelings of support, or foster creativity.

3.3. Disruption Led to Reflection, Shifts in Perspective and New and Broader Ranges of Strategies

These women leaders varied in their initial responses to the chaotic environment. Some reportedly pushed harder and faster in the same manner as pre-COVID-19, while others quickly pivoted to new leadership behaviors. The 2022 Achieving Styles Profiles of these leaders reflect these shifts. One critical change observed is a move from mostly relying on one to two preferred styles to more of the leaders relying on three or more styles, reflecting both adaptability and authenticity when engaging in leadership behaviors aligned with the situation at hand. More participants relied on one or two styles pre-pandemic than in 2022 (77% and 62%, respectively). Furthermore, in 2022, more participants relied on three or more styles (38%) than pre-pandemic (23%).

In addition to the broadened or wider profile, increased scores are seen most consistently across the instrumental achieving styles. Whereas pre-pandemic preferences skewed towards the direct domain (particularly power direct for 54%) and relational domain (contributory relational for 62%), 2022 scores skewed towards contributory relational (for 69%), social instrumental (for 23%), and entrusting instrumental (for 15%), in addition to power direct (23%). These preferences were noted through a ranking of scores (aka preference) for the styles and represent the highest score for an individual, and when rankings below the top-ranked preference fall within a 0.5 score, they are also considered a top score. In addition to the ranked scores of individual participants, the increases in the scores across participants in the scores for the styles are also of interest. The average scores on the instrumental styles increased by 0.34 for social instrument, 0.22 for personal instrumental, and 0.11 for entrusting instrumental. Notably, no increases were observed in direct styles, with an average decrease of 0.1 for intrinsic direct and competitive direct and no average change in power direct. This indicates that while participants can still access the style, given their greater range of styles, they do not tend to rely upon it solely. Instrumental leaders focus on themselves, their relationships and others in order to succeed. They serve as maximizers, deftly leveraging their own and everyone else's strengths.

However, as the pandemic carried on, nearly all participants paused, perhaps only briefly, and pivoted personally and professionally. Several were compelled to change their context, such as by changing jobs; others re-envisioned how their work environments needed to be. The participants often mentioned that setting boundaries or taking action for themselves or on behalf of their teams led to a greater focus and new perspectives on the role of leadership. What is consistently observed across this sample of women leaders is that their leadership behaviors were modified in response to their environments and with whom they interacted or led.

Interestingly, some referred to the intentionality of their pivot, whereas some were able to pinpoint their "aha" moment in identifying that they had adapted their leadership approach after reflection through the dialogue. One leader's description highlights a blend of the direct domain, with a focus on oneself as related to an awareness of and response to the external environment:

"I think that the pandemic really opened my eyes and helped me be a better leader. I was able to take feedback in a better manner once I overcame the shock of what the new job and responsibilities were. I began to ask more questions and be more aware of what I needed to do to be more successful."

Part of being a better leader meant not only reflecting on one's own responsibilities but also promoting and ensuring accountability for results. One participant describes this:

"At work, holding up everybody accountable for what they do and to work as a team, because you need everyone to work as a team if everything is to work smoothly and have a good workday."

3.4. Better Sense of Self, Increased Confidence, and Greater Empathy

A common thread and connection to the shifts in behavior was the leaders' perspective of themselves as leaders in terms of purpose and confidence, which translated to authenticity and empathy. Participants noted that once they were able to assess and take action, their confidence was boosted, and despite on-going challenges thrown in their leadership path, at the time of the interviews, they reported having great trust in themselves and their leadership abilities. One leader reported:

"I definitely adapted for the better. I came into the pandemic not very sure of myself and not confident. But all in all, I gained a lot of confidence. I found a new respect for the people around me, because I was more content with myself."

This comment aligns with the achieving styles' direct domain, particularly the intrinsic direct style. Furthermore, it reflects the Meta-Leadership Model's [4] focus on the person as a leader who embodies emotional intelligence and the capacity to engage, bonding their work to purpose. Relatedly, some reported that they had to re-envision the workplace and how to build a new culture based on a whole-person concept to build support systems that address a burgeoning need to provide safe (less threatening) spaces and psychological safety, given the turmoil in the external world due to the pandemic, social reckoning, and economic pressures.

The participating women leaders reported that the confines of the remote workplace compelled them to consider new ways of empowering their teams as well as focus on accountability. One reported:

"I had to teach people that we could get a lot done with me not being there; that we could pretty much do all remotely. I would establish the process and rules with them for our zoom meetings. We had a lot of interpersonal communications, continuing to make effective contact with people so that we could actually support one another and have productive meetings and goals met."

This somewhat newer way of leading relates to the need to empower, direct, and collaborate simultaneously to propel and maintain a group's efforts. This is reflected by increased scores in the instrumental and direct domains. The social instrumental domain, in particular, increased for two-thirds of the leaders, and the entrusting instrumental domain increased for just over a third. It also corroborates the consistent reliance on the collaborative relational domain across the time span.

Many specifically noted that they knew that their staff and colleagues needed different types of support and guidance at various points in the pandemic, and they, as leaders, needed to be vigilant to adapt their styles to the current needs. They recognized that while many needed encouragement and support, others needed direction and structure to maneuver through the balance of work and family responsibilities in this time of crisis and uncertainty. Frequently mentioned was the need for psychological safety, particularly in the remote work context, which was chaotic, without norms, and constantly changing.

As instrumental leaders, empathy was consistently mentioned by the women leaders as being key to their strategies in addressing the complexities of the many challenges confronted by themselves and their colleagues at home and in the workplace. The multi-faceted crisis was seen as equalizing, with everyone struggling with anxiety and/or depression. Yet through instrumental leadership behaviors, they did identify ways to maximize their own and everyone else's strengths, seeing the untapped possibilities in people and the situation. An example of a leader recognizing the need for empathy as a means for growth, not only for those she was leading but also for herself as a leader, is as follows:

"We had some cancer diagnoses in my family, depression, a lot of social anxiety. With all of those trials it sped up the learning curve. We talked about empathy and adaptability being key, pinnacle pieces of the workplace right now coming out of the pandemic. All of those trials helped me become more adaptable and more empathetic, which has made me a better leader."

Moreover, several mentioned that their newer perspective extended in numerous ways. Staff and colleagues were key, but also their families became a consideration. Also cited was an expanded perspective of the larger community within and beyond their organization.

"When the pandemic erupted, I was with a university where people are very community oriented. I started to think more about my community, recognizing that community is part of campus culture. I got involved just before, and continued my involvement in, the BLM movement. It made me feel greater dedication to those around me and empowered to participate in ways to make life better for others."

This reflects the spirit of an instrumental leader, who knows how to facilitate and orchestrate discussion and action at all levels. With the skill of being able to identify and activate untapped possibilities in people and situations, they assist groups in navigating challenges to reach communal goals. By maximizing everything about themselves, their relationships, and other peoples' talents, they easily bring people together to reach joint objectives.

3.5. Upon Reflection, Managing Self and Others Differently with Agility and Style

Reflection indicated that these leaders learned, often the hard way, that they had to manage and lead themselves in order to provide effective leadership for others. In demonstrating a greater accessibility, they were more open to receiving and incorporating feedback. Overall, these women leaders shifted in response to their situations, both personally and professionally in order to support their teams, reflecting the Meta-Leadership skill of situational awareness as well as exhibiting adaptability. The need to be more attuned to the needs of others, particularly their teams, emerged as a dominant theme, as reflected by one participant:

"I have also been reminded of how we have to work with and beside others in new ways that we did not before. I think that the crisis made me better because it made me grow and adapt very quickly and pivot when the situation called for it."

This agility or adaptability was referred to as a greater flexibility in leadership across teams and the organization as whole, with an intentional focus on organizational culture.

This adaptability mirrors the connectivity of the effort principle of Meta-Leadership [25] in crises, as seen in one leader's experience:

"When the pandemic first hit the impact of a pandemic on education was significant; how we had to come together as a community and as leaders and staff. We focused on all families, but especially on the very vulnerable. We were managing ambiguity, fear and anxiety. The teachers were pushed to instruct online overnight, which engaged the union and the teachers' needs. We pooled our resources and engaged our partners to meet the students' academic and their socio-emotional needs."

These reported shifts in how this group of women leaders reflect important facets of the Connective Leadership Model [1] Leadership profiles in 2022. Nearly all of the leaders expanded their repertoire, indicating a greater range of styles that could be employed in accordance with the situation at hand. Additionally, for many, some of the previously preferred leadership behaviors were relied on less often, with a focus on newer, previously less frequently used styles. Shifts were also observed towards working more with and through people (instrumental styles) as related to the aforementioned discussion on empathy and teamwork, but in some cases, direct and relational styles also grew in use.

4. Discussion

The COVID-19 pandemic has presented unprecedented challenges for women leaders across various sectors. In this article, we delve into the multifaceted experiences of women leaders during the pandemic, examining the internal and external forces that have shaped their leadership practices and how they have adapted and transformed in response.

The Connective Leadership Model [1] is a foundational framework for understanding how women leaders respond to a crisis. This model recognizes the importance of interconnectivity and diverse leadership styles in guiding groups of individuals with different backgrounds and perspectives. It offers nine achieving styles that connective leaders can draw upon to lead diverse teams effectively. Our mixed-method analysis sought a comprehensive understanding of women's leadership behaviors before and during the pandemic. By combining quantitative data and qualitative insights, we gained valuable insights into the unique circumstances faced by women leaders during the crisis and how it influenced their work dynamics.

One crucial aspect we explored was the emotional impact of the COVID-19 pandemic on women and their work. The pandemic placed significant psychological and emotional burdens on women in the workplace. Balancing personal and professional responsibilities, coping with increased workloads, and managing stress and burnout became significant challenges for women leaders. Our study aimed to delve into these aspects to understand the long-term effects of the pandemic better and emphasize the importance of supporting women's mental well-being. We analyzed the findings of our study in detail, uncovering several nuanced aspects that merit further consideration [7,8].

Firstly, we observed a significant reciprocal relation between participants' adaptive prowess and the Connective Leadership Model [1], suggesting applicability and flexibility in helping to assess and direct individuals, teams, and organizations to achieve greater and more fulfilling success through its emphasis on diversity and interdependence. However, it is important to note that our study design was exploratory, limiting our ability to establish a definitive cause-and-effect relationship. Future research employing more participants and experimental methods could help to illuminate the Connective Leadership Model [1] more robustly as a mechanism that validates its applicability across cultures and other diverse demographics. Additionally, we identified the Crisis Leadership Meta-Leadership Model [4] as a valuable lens for observing the relationship between adaptability and access to a repertoire of leadership behaviors. These observations warrant further investigation into the roles and implications for the women's leadership profiles in this study and how they unified large and small groups of people to work together for a common purpose [4,7,9,11]. Furthermore, while our sample size was adequate for our analysis, it is crucial to acknowl-

edge that it may not fully represent the diversity of the population, which could affect the generalizability of our findings.

Our analysis revealed that the agility and adaptability required to navigate new leadership challenges brought on by the COVID-19 pandemic were essential for the resiliency of our participants [1]. Women leaders demonstrated the ability to pivot and adjust their leadership approaches to meet the evolving needs of their constituents. They showed remarkable flexibility in adopting new technologies, implementing remote work structures, and reimagining traditional leadership practices. Furthermore, our study integrated a crisis leadership model, specifically the Meta-Leadership Model [14], to examine the competencies and skills necessary for leaders during a crisis. Sriharan [21] identified three thematic categories of crisis leadership: task, people, and adaptive competencies. These categories encompass skills such as preparing and planning, communication, and collaboration, inspiring and influencing, leadership presence, empathy and awareness, decision making, systems thinking/sensemaking, and tacit skills. By aligning the Connective Leadership Model [1] with the Meta-Leadership Model [4], we aimed to explore the overlap and identify key areas of convergence between the two frameworks [20].

Our analysis found substantial alignment between the Connective Leadership Model [1] and the Meta-Leadership Model [4]. Both models emphasize the importance of understanding the complexity and dynamics of a crisis, modifying leadership styles accordingly, and fostering collaboration and coordination among diverse stakeholders. The Connective Leadership Model [1] provides a comprehensive framework for leaders to navigate crises and achieve success through interdependence and diversity. The experiences of women leaders during the COVID-19 pandemic highlighted the need for adaptive leadership approaches that consider the well-being of individuals and the broader community. Our findings contribute to the growing body of knowledge on women's crisis leadership, shedding light on the transformative processes women leaders undergo during challenging times [6,8,10,21].

It is worth noting that the challenges women leaders faced in this study during the pandemic were different across industry sectors and regions. Intersectionality plays a crucial role in shaping the experiences of women leaders, with factors such as race, ethnicity, socioeconomic status, gender identity, and geographic location influencing the magnitude of the challenges they encounter. Future research should explore these nuances and develop targeted strategies to support women leaders from diverse backgrounds, as well as the unique experiences of women leaders and develop strategies to promote their success and well-being in times of crisis [2,7,11,12].

This study was conducted as a pilot, with acknowledgement of the limitations of the small sample size which impedes generalizability and validity as well as the inability to conduct a double-blind study. As researchers, we employed strategies to address issues related to bias and reliability in data collection and analysis. Future studies might further address such limitations with a larger sample, observation of additional components of the dialogues and characteristics of the participants, and the use of an added quantitative survey.

In conclusion, this article explored the challenges faced by women leaders during the COVID-19 pandemic and how they adapted their leadership practices to serve their constituents effectively. By utilizing the Connective Leadership Model [1] and integrating the perspective from the Meta-Leadership Model [4], we gained valuable insights into the behavioral profiles of women leaders during crises. The emotional impact of the pandemic on women in the workplace was also examined, emphasizing the importance of supporting their mental well-being. Our study validates the efficacy of the Connective Leadership Model [1] in crisis contexts and highlights its alignment with the Meta-Leadership Model [4]. By understanding and embracing diverse leadership styles, women leaders can navigate crises and foster collaboration to achieve positive outcomes when they recognize and access the broadest leadership behaviors available. We believe that our participant pool of women leaders demonstrated the four 'As' of connective leadership: authenticity, accountability, adaptability, and accessibility. These findings can serve as a guideline for other women facing crisis situations at present and in the future [1,7,8,10,12].

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Institutional Review Board Statement: IRB was not sought and therefore not provided for this project. Please see Appendices D–F for more information.

Informed Consent Statement: Informed consent was not obtained from all subjects involved in the study. Please see Appendices D–F for more information.

Data Availability Statement: Not applicable.

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Conflicts of Interest: The authors declare no conflict of interest.

Appendix A

A DIRECT SET: acts directly on the situation; controlling both the inputs and outcomes of the endeavor

A1 Intrinsic Direct:

Within the direct domain, the first style is intrinsic. Individuals who use the intrinsic direct style are self-motivated, do not wait for others to help them, and incorporate a high standard of excellence. They have within themselves the resources to perform the task, and a perfectly executed task is the reward they seek. Their challenge is to outdo their own previous performance, without comparing themselves to others.

A2 Competitive Direct:

People who use competitive, the second style in the direct set, derive great satisfaction from performing a task better than anybody else. Competing against others compels them to do their best, which may mean creating a contest where it otherwise may not have existed.

A3 Power Direct:

People who use power, the third style within the direct set, prefer to organize, be in control of, and manage people, resources, and processes. They often seek leadership roles, which ordinarily provide the necessary authority to coordinate and organize people and events, as well as commandeer resources, and keep control of the end result.

B INSTRUMENTAL SET: uses self and others as instruments for achievement; controlling the inputs but sharing the outcomes of the endeavor with their constituents.

B1 Personal Instrumental:

Personal is the first style in the instrumental set. Individuals who prefer this style use everything about themselves, including their personality, wit, charisma, personal appearance, intelligence, background, and/or previous achievements to attract others and

further their goals. They often excel at public speaking, dramatic gestures, symbolism, humor, timing, and costume. They frequently engage in unexpected actions, which take both their supporters and opponents by surprise, often making their targets more receptive, excited, and even vulnerable to their directions.

B2 Social Instrumental:

The second style in the instrumental domain is social. People who call upon this style engage and involve other people with relevant training, skills, and/or experience in achieving their goals. By recognizing the connections between training, experience, and goal achievement, individuals who call upon this style use their contacts, as well as their strong political and networking skills, to achieve their goals. Additionally, this style requires maintaining a network of people, who feel remembered, liked, and poised to help.

B3 Entrusting Instrumental:

The third style in the instrumental set is entrusting. People use this style to empower others, even though those individuals have no specifically relevant training or experience. This requires, therefore, a situation where the individual can or must entrust their goals to others and believe that those others can accomplish the task with minimal supervision. This "leadership by expectation" motivates others to rise to the occasion and live up to the high and often flattering expectations placed upon them by the leader. This style is commonly called upon in crises, when other individuals with proven credentials for the task are unavailable.

C RELATIONAL SET: achieves through relationships; sharing or even deferring both the inputs and the outcomes of the endeavor with their constituents.

C1 Collaborative Relational:

In the relational set, the first style is collaborative. When the situation calls for others to join (this may mean a single collaborator or a multi-person team), this style may increase the odds of success. Often, when using this style, individuals experience a sense of camaraderie from working with others, as well as a devotion to the group and its goals. Tasks, as well as the rewards and disappointments of the challenge, are expected to be shared equally.

C2 Contributory Relational:

The second style in the relational set is the contributory style. People who favor this style prefer to work behind the scenes to help others achieve their goals. A sense of accomplishment and success exists when the "front" person or group accomplishes "his"/"her"/"their" task. The contributory relational achieving style involves "partnering" in the other person's or group's goal, with the understanding that the major and/or public accomplishment belongs to the "front" person or group. Mentoring in the family, school, and workplace are examples of this style.

C3 Vicarious Relational:



Third in the relational domain is the vicarious style. People who prefer this style derive a genuine sense of accomplishment from the success of others with whom they identify. Individuals who call upon the vicarious style do not "get into the act" themselves. As spectators or supporters, rather than direct participants, their sense of pride in the success of others with whom they identify is sufficient reward.

Appendix B

This is a sampling of The Achieving Styles Inventory[™] Items, used in this study in a pre–post-test format:

A Direct Items

A1 Intrinsic:

For me, the most gratifying thing is to have solved a tough problem.

More than anything else, I like to take on a challenging task.

For me, the greatest satisfaction comes from breaking through to the solution of a new problem.

A2 Competitive:

For me, winning is the most important thing.

I am not happy if I don't come out on top of a competitive situation.

- I select competitive situations because I do better when I compete.
- A3 Power:

I want to be the leader.

I want to take charge when working with others.

Being the person in charge is exciting to me.

B Instrumental Items

B1 Personal:

I work hard to achieve so people with think well of me.

I strive to achieve so that I will be well liked.

I try to be successful at what I do so that I will be respected.

B2 Social:

I get to know important people in order to succeed.

I use my relationships with others to get things done.

I establish a relationship with one person to get to know others.

B3 Entrusting:

When I want to achieve something, I look for assistance. I look for reassurance from others when making decisions. When I encounter a difficult problem, I go for help.

C Relational Items

C1 Collaborative:

Faced with a task, I prefer a team approach to an individual one. Real team effort is the best way for me to get a job done. For me, group effort is the most effective means of accomplishment *C2 Contributory:* I achieve by guiding others toward their goals.

I have a sense of failure when those I care about do poorly.

My way of achieving is by coaching others to their own success. *C3 Vicarious:*

I achieve my goals through contributing to the success of others.

For me, the greatest accomplishment is when people I love achieve their goals.

The accomplishments of others give me a feeling of accomplishment as well.

Appendix C

The Qualitative Interview protocol employed in this research is below.

Women and Leadership Research Project.

Hypothesis: Women's leadership becomes stronger and better in a time of crisis and conflict.

The purpose of this study, a mixed-methods research project, is focused on women leaders and how they led through crisis, particularly during the past two to three years of the global COVID-19 pandemic. The research is grounded in the Connective Leadership Model/Achieving Styles, the results of which we expect will demonstrate critical leadership behaviors in times of crisis.

As a reminder, these styles are characteristic behaviors individuals use to achieve their goals and connective leadership emphasizes connecting individuals to their own, as well as others', tasks, and ego drives. The Achieving Styles Model includes three sets of achieving styles (direct, instrumental, and relational), each subsuming three individual styles, resulting in a full complement of nine distinct achieving styles. Source: www. achievingstyles.com (accessed on 6 June 2023).

Interviews are scheduled with women in leadership roles pre- and post-pandemic. The research team is focusing specifically on the achieving styles as defined in the Connective Leadership Model. The interviews will involve a researcher certified through the Connective Leadership Institute and selected women leaders who have participated in programs or activities pre-pandemic during which the Achieving Styles Inventory (ASI) was administered. Interviewees will retake the ASI, after which an interview will be held using the following interview protocol.

Interview Questions

The questions below will be used by each researcher/interviewer during scheduled interviews. Additional clarifying inquiries may be posed, prompted by the responses to the questions below.

1. Reflect upon your pre-pandemic leadership style—describe your role and your primary "under normal circumstances or routine" leadership model.

2. As the pandemic evolved, what shifts in context occurred? How did your preferred leadership model shift from your pre-pandemic model to a "pandemic model" and what it is now?

3. Relating to the contextual shifts, how did you go about achieving critical goals for the team or organization you were leading; what leadership behaviors did/do you use most frequently to implement those goals? What obstacles did you encounter and how did/do you respond?

4. How did your identity and the culture of the team/organization within which you are working influence, if at all, how you went about addressing the various/critically important issues which arose during the pandemic?

5. From what did you derive the greatest satisfaction as you provided leadership through the crisis?

5.1. Breaking through to the solutions of a new problem(s) and/or taking charge when working with others, and/or coming out on top and receiving accolades from others? Any or all?

6. What were key leadership/operational practices which proved most beneficial?

6.1. Developing relationships with others to get what we needed to succeed; reaching out for help when necessary—beyond my defined sphere of influence/authority.

6.2. Team efforts to responds to changing needs and to achieve critical goals.

6.3. Relying on others to step up to new, potentially temporary roles and activities which were not part of their defined job spec; taking an active part in helping others achieve success.

7. All things considered, what have been your takeaways as you reflect upon the crisis period and your growth as a leader?

Appendix D

Reasons for not seeking full Ethics Review

The authors consider a full ethics (IRB) review to be not warranted given the study design. There are several reasons for our decision that we wish to expand upon here:

 Informed Consent: The research participants were offered and agreed to provide informed consent three times in our data collection process—twice when completing the ASI online, as consent is built into the inventory, and then verbally in the Zoom interviews (see Appendices D and E).

- *Risk*: Having used the ASI and interviews about leadership styles in previous research, we were assured by various campus IRB boards at different US campuses that full IRB review was not necessary.
- Assessment As Learning: All four of the researchers on this project are highly trained in the practice of assessment as learning (William, 2011). In so doing, we offer the ASI results to our learners with transparency and without judgement.
- Cybersecurity: All assessment and interview transcripts were maintained on passwordprotected and secure servers.
- Anonymity: All data were stripped of personal identifiers and were reported in ways that cannot be traced back to the participants.

Appendix E



CONNECTIVE LEADERSHIP INSTITUTE When Inclusion is Critical & Connection Inevitable

Participant Privacy Policy

As a part of this group, you have been assigned to a Group Leader who may wish to view your results. Your group leader is ______.

By default, the Group Leader is given the permission to view your results. Nevertheless, the Connective Leadership Institute (CLI) protects the right of all users to keep their results private from their Group Leader, if desired.

Your individual privacy will be maintained in all publications or presentations resulting from our research. In the demographic section of the Assessments, you are required to fill in the first and last name boxes in order for you to access your data at a later time. In order to preserve the confidentiality of your responses, only those staff people with administrative status at the Connective Leadership Institute will have access to the records in the Achieving Styles Database.

Consent Form

By completing an Assessment on the Connective Leadership Institute website, you are contributing to the accumulating database used by the Connective Leadership Institute to conduct research. The research undertaken by the Institute focuses on Achieving Styles and their relationship to numerous other individual and organizational concepts.

There are no foreseeable risks associated with the Assessments. We do, however, expect that the detailed analysis of your results and your Connective Leadership/Achieving Styles Profile, based on the Achieving Styles Model, will benefit you by providing new information about how you go about accomplishing your tasks and leading others.

Please understand that participation is completely voluntary. Your decision to complete the Assessment(s) in no way will affect your current or future relationship with the Connective Leadership Institute. You have the right to withdraw from the research at any time without penalty.

Your individual privacy will be maintained in all publications or presentations resulting from our research. In the demographic section of the Assessments, you are required to fill in the first and last name boxes in order for you to access your data at a later time. In order to preserve the confidentiality of your responses, only those staff people with administrative status at the Connective Leadership Institute will have access to the records in the Achieving Styles Database.

Appendix F

Consent to Participate in Research (*No Signature*) Project Title: Women's Leadership and the COVID-19 Pandemic Population: Women Leaders who have participated in Training or Courses where the Connective Leadership Model and the Achieving Styles Inventory (ASI) were employed between 2012->2022) Researchers:

1.
 2.
 3.
 4.
 Researcher Contact:
 1.
 2.
 3.
 4.

You were asked to take part in a research study. The box below shows the main facts you need to know about this research for you to think about when making a decision about if you wanted to join in. Carefully look over the information in this form and ask questions about anything you do not understand before you make your decision.

Key Information for You to Consider

- <u>Voluntary Consent</u>. You are being asked to volunteer for a research study. It is up to you whether you choose to involve yourself or not. There is no penalty if you choose not to join in or decide to stop.
- Purpose. The reasons for doing this research are:
 - 1. What are the Impacts of the COVID-19 Pandemic on the Leadership practices of women leaders?
 - How can the Connective Leadership Model explicate the shifts in these leadership practices?
 - 3. How can the Crisis Management Leadership Framework explain on any observable shift in leadership practices?
- <u>Duration</u>. It is expected that your part will last approximately 20 min to complete the ASI inventory & approximately 1 h to conduct the interview.
- <u>Procedures and Activities</u>. You will be asked to take a second ASI (*you took it earlier in a course or training with one of the 4 researchers*) & participate in an interview.
- <u>Risks</u>. Some of the possible risks or discomforts of taking part in this study include, a feeling
 of disappointment on how your ASI results have shifted since you first took it. The
 conversation about the crisis of the COVID-19 Pandemic may be triggering of discomfort.
- <u>Benefits</u>. Some of the benefits that you may expect include a clearer perspective on how your leadership has shifted as a result of the COVID-19 Pandemic. You also will receive a second ASI report at no cost to yourself. An opportunity to reflect on changes in leadership practices that have occurred during this time of crisis and how you have adapted.
- Options. Instead of taking part in this study, you could chose not to.

What happens to the information collected?

Information collected from you for this research will be used to present at an International Leadership Association conference on Women's Leadership (June 2022 in South Hampton, UK) and for publication in a scholarly journal.

How will I and my information be protected?

We will take measures to protect your privacy including making all reports of the data anonymous. Despite taking steps to protect your privacy, we can never fully guarantee that your privacy will be protected.

To protect all your personal information, we will keep your data on a secure cloud server that is password protected. Despite these precautions, we can never fully guarantee that all your study information will not be revealed.

What if I want to stop being in this research?

You do not have to take part in this study, but if you do, you may stop at any time. You have the right to choose not to join in any study activity or completely stop your participation at any point without penalty or loss of benefits you would otherwise get. Your decision whether or not to take part in research will not affect your relationship with the researchers.

Will it cost me money to take part in this research?

There is no cost to taking part in this research, beyond your time.

Will I be paid for taking part in this research?

No.

Who can answer my questions about this research?

If you have questions or concerns, contact the research team at: Researcher #1

Consent Statement

I have had the chance to read and think about the information in this form. I have asked any questions I have, and I can decide about my participation. I understand that I can ask additional questions anytime while I take part in the research.

- \Box I agree to take part in this study.
- \Box I do not agree to take part in this study.

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