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Nurses' Implicit Medical Leadership Theories (IMLTs) during the COVID-19 Pandemic: A Qualitative Study

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A B S T R A C T

During the COVID-19 pandemic, the endeavors made by effective medical leaders in healthcare systems were nothing short of extraordinary. However, nurses were privileged to be at the heart of healthcare provision to patients; therefore, plausibly, they have formed some schemas to identify medical leaders from non-leaders during the unprecedented health crisis of COVID-19. Eighteen frontline healthcare nurses who worked in different units treating COVID-19 patients in different Iranian hospitals in semi-structured interviews from July to September 2023. In semi-structured interviews, the participants were asked open-ended questions about the traits and behaviors that make an individual a medical leader from their perspectives during the COVID-19 pandemic. The author analyzed the interview transcripts employing thematic analysis. The implicit medical leadership theories (IMLTs) of nurses during the COVID-19 pandemic were categorized into four themes for the prototypes (i.e., charismatic, knowledgeable in both management and medicine, committed and accountable, an effective communicator) and two themes for the anti-prototypes (Narcissistic and authoritarian). The results of this study reveal several salient themes of implicit medical leadership theories during the COVID-19 pandemic. The findings also address the chasm in follower-centered perspectives about medical leadership during the COVID-19 pandemic. The findings can be incorporated into best preparations and practices to train future healthcare leaders.

Introduction

Leaders play critical roles in the success of organizations, and their performance can have a profound impact, especially during crises (Mumford et al., 2007; Wu et al., 2021). A crisis plagues an organization with uncertainty and ambiguity, entailing urgent initiations to safeguard organizational viability (Zhang et al., 2014). During crises, leaders show directions and followers follow (Yukl, 2010), however, followers view one as a leader on the basis of their implicit leadership theories (ILTs) and act according to the outcome of their comparison with their actual superior with these ILTs (e.g., Lord et al., 2020; Shondrick & Lord, 2010). Implicit Leadership Theories (ILTs) are cognitive structures or prototypes that determine the abilities and traits that characterize leaders (Lord et al., 1984; Lord & Maher, 1991). Plausibly, organizations, especially hospitals, must know nurses' ILTs and develop them in their leaders to increase their productivity.

Implicit Leadership Theories (ILTs) are conceptualized at three levels: superordinate, basic, and subordinate. (Lord et al., 1982, 1984). While the superordinate level contains traits and features distinguishing leaders from nonleaders, the basic level includes different contextualized prototypes that differentiate diverse types of leaders including medical leaders. The subordinate level describes those traits and characteristics of the types of leaders in specific contexts. This research considers the subordinate levels to explore what ILTs followers hold about medical leadership during the COVID-19 pandemic.

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The COVID-19 pandemic has been one of the most severe global health crises in recent years and necessitated strong leadership to navigate through it. Despite the attention of researchers to the literature on the characteristics of physician leadership (Dine et al., 2011; Taylor et al., 2008; Warren & Carnall, 2011), the perceptions of followers regarding medical leadership during times of crisis have received very little attention, and logically robust endeavors should be made to study nurses' experiences during periods of crisis to gain a more profound understanding of crisis leadership (Caringal-Go et al., 2021). To achieve this goal, we conducted this study to fully understand the implicit theories of nurses about medical leadership during the COVID-19 pandemic. The findings of this research can help health policy decision-makers train leaders according to IMLTs to make leadership more effective.

Method

Study Design

To transcend rudimentary knowledge about the implicit leadership theories of nurses during the COVID-19 crisis, a profound insight into individual experiences is needed. Hence, the framework of Interpretative Phenomenological Analysis (IPA) was used to explore the experiences of nurses who worked in ICUs and COVID-19 units in several hospitals in Iran during the COVID-19 pandemic. IPA is the best method for investigating unprecedented situations that lead to emotion-laden experiences (Smith & Osborn, 2008) such as leadership during the COVID-19 pandemic. The interviews with nurses after the COVID-19 pandemic helped extract more accurate themes owing to their full memories and persistent perceptions which were not shaped due to their laborious and hectic days with much less stress and apprehension along with the full experience of working under the supervision of different leaders. Thus, the main objective of the present research is to gain a rich understanding of the traits and behaviors followers consider as the features of a medical leader and nonleaders during the COVID-19 pandemic. This approach aligns with the objective of this study which is to explore nurses' IMLTs during the pandemic on the basis of their lived experiences. This approach is well-applied in previous research to extract ILTS (e.g., Magsaysay & Hechanova, 2017; Offermann et al., 1994; Sharifirad, 2021).

Sample and Sampling Method

The participants were 18 nurses working in different ICUs and COVID-19 units in several hospitals in different cities in Iran. This helped the researcher obtain a richer reservoir of experiences and plausibly more quality themes. Several criteria were considered when choosing participants. Since implicit theories are formed over time and to guarantee quality personal experiences and mental schemas, two criteria were selected: first, having a minimum of five years of experience and second working with at least five supervisors during the COVID-19 pandemic in departments highly involved in the COVID-19 response to increase the possibility of having the themes depicting IMLTs best.

Data collection

In this study, both purposive sampling and snowball sampling methods were utilized to overcome the difficulty of finding qualified participants during the pandemic (18 participants). On the basis of the nature of qualitative methods, participants with sufficient information regarding the concept of leadership were selected to enable deep exploration of the phenomenon. The sample size relied on the principle of data saturation. (Polit & Beck, 2008). The interviews lasted for approximately three months from July to September 2023. To collect data, eighteen semi structured and in-depth interviews were conducted to collect qualitative data. For each interview, six main open-ended questions were asked (See Table 1). The questions were adopted from the available ILTs literature. Each interview lasted from 20 to 40 minutes. All the interviews were recorded, and their contents were transcribed and typed. The transcripts were meticulously read, reread, and contemplated to immerse profoundly in the data and finally, codes were extracted. Data collection and analysis were performed concurrently.

Table 1- Interview Questions.

Number	Questions
1	How would you describe/define a medical leader during the pandemic?
2	Describe a situation, when you feel you have seen the traits and behaviors of a medical leader.
3	Describe a situation, if there has been one when you felt medical leadership during the COVID-19 pandemic.

4	How would you describe/define a person who is not a medical leader during the pandemic?
5	Any further points regarding medical leaders?

Data analysis

The qualitative data were analyzed via using Braun and Clarke's six steps of thematic analysis. (Braun & Clarke, 2006). First, the researcher became familiar with the data. Second, initial codes were extracted. Third, the codes were sorted and categorized to uncover themes. Fourth, the extracted themes were reviewed. Fifth, the themes were refined and finalized. The researcher utilized MAXQDA 2020 to manage the data. As this research focused mainly on the prototypes and antiprototypes of medical leaders from the nurses' points of view, we finally chose to report only the most salient (i.e., common) themes from each aspect (prototypes/antiprototypes) when we produced the report on our findings in this paper.

Trustworthiness

In this study, to ensure the trustworthiness of the data, Lincoln and Guba's criteria including credibility, dependability, conformability, and transferability were considered (Elo et al., 2014; Lincoln et al., 2011). The researcher emphasized long-term interaction and continuous engagement by devoting a great deal of time to collecting data, transcribing and extracting codes, and presenting the codes to the participants for their approval, thereby ensuring credibility. To substantiate dependability, the labeling of the themes and subthemes was performed by receiving guidance from experts. To ensure the conformability of the data, the codes, themes, and subthemes were all discovered without confirmation bias and agreement was reached on all of the extracted codes and themes even after receiving guidance from experts in qualitative research and leadership. To substantiate transferability, we not only provide elaborate descriptions of the conditions during the analysis by showing many direct quotations from the transcripts of the interviewees, but also select some participants with diverse ages, genders, and educational levels.

The demographic information revealed that 48% of the participants were male and 52% were female. More elaboration on demographic information is provided in Table 2. The data were analyzed by thematic analysis (Braun & Clarke, 2006). After data analysis, 156 initial concepts were extracted. The thematic analysis of the data led to the identification of nurses' IMLTs during the COVID-19 pandemic, which were categorized into prototypes and antiprototypes (Table 3). These concepts emerged in 19 subthemes and 6 main themes including four prototypes of charismatic, knowledgeable in both management and medicine, committed and accountable, an effective communicator, and two antiprototypes of narcissistic and authoritarian.

Table 2- Demographic characteristics of the participants (N = 18).

Participants	Gender	Age	Tenure	Workplace ward	Education Level
P1	Male	35	7	Emergency	BSc
P2	Male	41	10	ICU	MSc
P3	Male	30	5	ICU	MSc
P4	Male	45	12	Respiratory Infections Ward	MSc
P5	Male	48	18	ICU	BSc
P6	Male	52	20	Emergency	BSc
P7	Male	33	7	ICU	MSc
P8	Male	55	21	Emergency	PhD
P9	Female	48	18	ICU	BSc
P10	Female	47	15	respiratory infections ward	MSc
P11	Female	31	6	Emergency	BSc
P12	Female	50	17	Emergency	BSc
P13	Female	34	8	respiratory infections ward	BSc
P14	Female	38	7	ICU	BSc
P15	Female	42	8	ICU	BSc
P16	Female	45	16	Emergency	BSc

P17	Female	33	7	Emergency	MSc
P18	Female	53	22	respiratory infections ward	BSc

Results

Theme cluster 1: Charismatic

The theme analysis revealed that one of the organizing themes was "charismatic", which identified a prototypical trait of IMLTs from the perspective of nurses. The subthemes consisted of "Inspirational", "Value-oriented", and "Self-confident".

Subtheme 1: Inspirational

The leadership during the COVID-19 pandemic depicted several special features among which being "inspirational" was revealed as a significant leadership prototype by the participants. One interviewee stated, "… we witnessed that the healthcare system faced critical challenges during the pandemic. At that time, one of my supervisors rallied the nurses and personnel, showing her fears but highlighting our vital role. Her perseverance and sympathy encouraged us to overcome the challenges, believing we could make a difference in people's lives." *(P12)*. Similarly, a different participant said, "At times, we lost hope and he [the leader] charged us with his words and sentences. There was no sign of frustration on his face or in his behavior." *(P6)*. These quotes illustrate the centrality of charisma as a part of ILTs for nurses during the pandemic. According to the interviews, leaders who could inspire resilience, connect with their teams on a deeper level, and provide a sense of hope during a crisis, were prototypical leaders.

Table 3- Thematic analysis: From codes to global theme about IMLTs and additional quotes.

Global themes	Organizing themes	Basic themes
Prototypes	Charismatic	Inspirational
		Value-oriented
		Self-confident
	Knowledgeable in both management and medicine	Being a specialist
		A competent crisis manager
		A strategist
		Agility to adapt to environmental change
	Committed and accountable	Committed to the health of the public
		Committed to the health of personnel
		Engaged
		Highly responsible
	An effective communicator	Trustworthy
		Diplomatic
		Empathetic
		Supportive
Anti-prototypes	Narcissistic	Selfish
		Callous
		Self-interested
	Authoritarian	Tyrant
		Obstinate
		Narrow- minded
		Despotic

Subtheme 2: Value-oriented

Nurses believed that during the crisis of the COVID-19 pandemic, core values revolving around the hinge of taking care of patients, and being thankful to nurses because they strived to help patients regain their health by jeopardizing their health to fulfill their goals. One participant mentioned, "A medical leader understands that nurses advocate their time, and energy during the COVID-19 pandemic through blood, sweat, and tears. A leader understands it and treats us respectfully." *(P12).* This perception was also echoed by another interviewee who stated "Amidst a crisis, one of my supervisors emphasized respect and empathy, guiding her team to prioritize patients' health. In that unbelievable mess, with many dead people daily, her unwavering focus on values fostered the value of care that was humane and laudable, ensuring everyone felt respected and heard." *(P17).* Values determine attitudes and behaviors; plausibly, these behaviors of leaders send signals to the followers (nurses) to label them as medical leaders.

Subtheme 3: Self-confident

Some interviewees believed that self-confidence is an essential aspect of their leadership perception. They mentioned that medical leaders exude self-assurance and sturdiness in their decisions. One nurse asserted, "A real leader makes robust decisions and injects confidence in the team with their tenacity. In other words, these people do not waiver or doubt themselves, especially in high-pressure situations such as the COVID-19 pandemic." *(P2).* This sentiment was echoed by another participant who stated, "Uncertainty and fear were ubiquitous during the COVID-19 pandemic, and those doctors who were knowledgeable and had confidence could both save people's lives and make us relieved and this makes an enormous difference." *(P15)* These quotes illustrate that self-confidence has a direct impact on the well-being of both nurses and patients; therefore, those who could fulfill it were deemed medical leaders.

Theme cluster 2: Knowledgeable in both management and medicine

The second theme cluster extracted from the interviews was both having both knowledge of management and medicine. This theme has the subthemes of "being a specialist", "a competent crisis manager", "a strategist" and "agility to adapt to environmental change."

Subtheme 1: Being a specialist

In most situations, patients with COVID-19 require immediate medical attention to prevent its progress; therefore, several nurses noted that having a high level of knowledge about this virus and studying the methods to prevent it as well as research in this regard were the main qualities of leaders from their perspective. For example, one of the nurses said, "He is a renowned pulmonologist, inspired his team during a critical era of virus contagion. Her expertise and science guided them, enhancing collaboration and trust leading to the saving of lives and showing true leadership." *(P13)* In the interviews, another nurse said, "This virus was new to us and we acted on the basis of the doctors' recommendations and reported the results. What made a doctor a leader, according to my experience, was their special knowledge of the disease and the medical practices and knowledge to stop the activities of the virus in the body." *(P.15)*

Subtheme 2: A competent crisis manager

In addition, emphasizing the special knowledge of curing COVID-19, several nurses also postulated that those individuals who were medical leaders in their opinion, were undoubtedly competent managers during crises. For example, one nurse said, "Owing to the high number of patients and the lethal nature of COVID-19 variants, a leader was the one who handled the chaos and from one side restricted the contagion of this virus and initiated necessary treatments for the current patients, and from the other side, value radical intervention, resource allocation, and collaborative decision-making." *(P10)* Another nurse told a story and said, "During the ferocious wave of COVID-19 infection, Nurse X swiftly evaluated the chaos and coordinated the team, prioritized patient care, and maintained composure, changing the crisis into order and preventing a catastrophe." *(P3)*

Subtheme 3: A strategist

Nurses as the frontline respondents to the unprecedented crisis of COVID-19 witnessed the actions, behaviors, thoughts, and interactions of several supervisors, and doctors in authority and captured a picture of medical leaders during this unfavorable epoch. One participant explained "That period was full of uncertainty and we needed a vision that gave us hope and resilience. I think that a real leader in this situation

learns from the past and thinks of the future seriously to act proactively against this virus in the future." *(P5)* Aligned with the core idea of this quote, another nurse remembered, "We had resource limitations in our hospital, he devised a strategic plan to optimize staffing. He enhanced morale and efficiency by reallocating tasks and enhancing communication resulting in improved patient care outcomes." *(P11)*

Subtheme 4: Agility to adapt to environmental change

According to the interviews, the nurses highlighted the essence of environmental change adaptation as a key determinant of medical leadership. One participant noted, "The only constant thing was contracting the disease daily and the rest was unknown. There was no cease in that battle and the virus changed its nature by inflicting pain on the patients and strangling them. Moreover, sometimes the number of patients increased significantly and this entailed managing the situation to accommodate the needs of the patients via for example having temporary sites to treat outpatients." *(P10)* One experienced nurse emphasized this point with her words, "When a new protocol emerged during a pandemic, Nurse X adapted her team's workflow quickly. Her flexible approach ensured seamless care and empowered her colleagues, showcasing true leadership in uncertainty." *(P18)*

Theme cluster 3: Committed and accountable

One of the main themes of this research is "Committed and accountable", which identified the prototypes of nurses' experiences of medical leadership. The four subthemes considered for this theme are "Committed to the health of the public", "Committed to the health of personnel", "Engaged" and "Highly responsible".

Subtheme 1: Committed to the health of the public

The implicit medical leadership theories of nurses have recurrently focused on the profound commitment to the health and well-being of the public. This theme emerged strongly in our analysis showing the importance of caring for the health of all patients. Many of the nurses emphasized that the pandemic started a clear, time-sensitive mission of caring for patients that was almost self-evident. For example, one nurse stated, "A medical leader feels responsible for being the voice for those who suffer in silence and feel pain. I deem it an indispensable part of medical leadership, whether it is speaking up about public health issues or acting persistently and strictly to defend public health." *(P18)* One nurse noted, "During those days and nights, one of my colleagues spent much time visiting and talking with patients to give instructions and take care of them despite her evident fatigue and tiredness. I see her as a leader during harsh period." *(P3)*

Subtheme 2: Committed to the health of personnel

In addition to the essence of caring about public health, nurses also emphasized the leaders' commitment to the general health of the nursing staff and other personnel. This was especially important since work overload and demand were high during the COVID-19 pandemic. One participant elaborated on how her supervisor's support and compassion had a memorable impact: "We are humans, not robots, we have emotions and families who are waiting for us outside. I sometimes really faced burnout and was emotionally drained, and my supervisor checked in on me regularly, assured me that I was ok and fine, and even covered some of my shifts; therefore, I could take time off and be with my family." *(P9)* Another nurse reminisced on experiencing a medical leader. "There was a time I was physically and emotionally pressured; my supervisor walked around the units and talked with nurses. Once I was taking a nap in the resting room and I was the only one there, my supervisor turned off the light and left with no sound. I understood it and was filled with mental assurance that she understood and was supportive." *(P7)*

Subtheme 3: Engaged

The concept of leadership for some participants was significantly formed by high-level engagement with both patients and personnel. This emphasized the importance of being actively involved in daily operations and experiencing the unique challenges of nurses during the COVID-19 pandemic. According to the interviews, one of the nurses said, "Our supervisor who was a leader to me rounds with us on the units regularly, spending his time talking with patients, listening to their concerns, and communicating with nurses to improve the condition of the patients. He did not just sit in his office and was with us on the front lines, rolling up sleeves and supporting the team." *(P4)* Another nurse said, "During the COVID-19 pandemic, I experienced the management and leadership of different individuals. A leader is a person who actively listens to his team, motivates collaboration and addresses patient needs as fast as possible with an unabated effort." *(P15)*

Subtheme 4: Highly responsible

The analysis of the interviews demonstrated that a medical leader takes ownership of outcomes and considers themselves accountable and responsible for the decisions made. As one nurse described, "One of my previous supervisors was the epitome of a leader. He made decisions about how to take care of patients determinedly and confidently according to high standards and never backfired in tough conversations and challenges. We were relieved when he made his decision since he looked at the problem from various viewpoints and made the best decision and accepted all the consequences of his decisions." *(P1)* Another participant mentioned that "After the outbreak of the Beta variant of COVID-19, the hospitals were more than full; they could not offer services to some patients; at this time, one of my best supervisors, calmly assessed the situation and delegated various tasks to different personnel efficiently and stayed late to support her team. This was admiring for me for her unwavering responsibility and commitment to patient care and safety." **(P10)**

Theme cluster 3: An Effective Communicator

Subtheme 1: Trustworthy

Several nurses highlighted how significantly the pandemic revolutionized the communication channels, thereby increasing the importance of trust. To them, trustworthiness encompassed transparency in communication, authenticity in verbal and emotional expression, and fostering credibility with their team members. As one nurse said, "We are indeed under a heck of a situation during the pandemic; however, we need a leader whom we can trust to communicate openly and freely and feel we are not alone in this mess." *(P10)* Another participant mentioned, "… was with her at a patient's bed, while the team was talking together, she said something that others accepted without a word since they knew that his prescriptions were always correct. I think a leader should have such a power to show a wise person in the minds of others." *(P1)*

Subtheme 2: Diplomatic

One of the consequences of high levels of stress is accumulated negative emotions which result in various deviant behaviors including incivility, abuse, and mistreatment. Nurses admitted that they sometimes could not control their emotions and vented at each other and even at the supervisor, exacerbating the situation. In such situations, some nurses emphasized that leaders, "[…] but she interfered and put an end to the screaming of my coworker, who did not feel secure to put an end to the conversation. My other colleagues and I got relieved and felt relaxed then." *(P2)* Another nurse said, "In one of the team meetings, tensions flared over patient care decisions. My supervisor calmly listened to everyone, respected everyone's voice, asked for collaboration in the critical period of the COVID-19 pandemic, and finally guided the team to a consensus.

Subtheme 3: Empathetic

Several interviewees emphasized the importance of a leader's empathy in the emergence of leadership in their perceptions. Empathy is particularly important during times of crisis such as the COVID-19 pandemic. Empathic supervisors can establish more profound connections with their team members, and be aware of others' emotions, thereby supporting members in navigating through challenging circumstances. One nurse reflected on the importance of empathy for leadership emergence by stating, " […] A leader can understand the feelings of nurses who are under so much pressure to show genuine empathy and understand how we feel as the frontline healthcare workers. Every death scratched my soul and made me emotionally and mentally numb, which inflicted distress. We need one to replenish our energy via empathy." *(P12)* Another nurse remembered, "At times, patients suffered from oxygen deficiency and I witnessed that she stood next to the bed of patients and soothed them by listening to them patiently with a smile on the face despite extreme tiredness and fatigue." *(P1)*

Subtheme 4: Supportive

As uncertainty leaks in an environment, the role of leaders as decision-makers becomes more significant. Those who implement those decisions are nurses; therefore, they require support from the supervisors. These supportive supervisors were better matches for leaders in the minds of nurses. One of the participants emphasized, "The success in working effectively in a hospital during the COVID-19 pandemic was undoubtedly related to the supervisor's support of nurses after starting the way. This makes us feel safe and secure." *(P3)* Another participant commented, "During one critical night shift, we faced a deficiency in drugs and equipment and after some time the medication and equipment were supplied owing to the

unwavering support of him. I felt he was beside us at all times, guaranteeing the best performance of the team to save the lives of patients." *(P7)*

Theme cluster 3: Narcissistic

This theme cluster represents the antiprototypes of medical leaders during the COVID-19 pandemic from the perspective of nurses. According to the literature on implicit leadership theories (e.g., (Lord et al., 2020)), some behaviors and traits cause individuals not to characterize leaders from followers' perspectives. Owing to this point, two antiprototypes of medical leaders were extracted from the interviews. The first cluster has three subthemes: "Selfish", "Arrogant", and "Self-interested".

Subtheme 1: Selfish

Having seen and experienced interactions with selfish supervisors, several nurses explicitly emphasized that such individuals are detrimental to the well-being and performance of nurses; hence, they are not considered leaders. During the interview with one nurse, he said, "I have seen and believe that thinking about oneself and excluding others does not help anyone be a leader and is not only toxic to the organization but also puts psychological pressure on nurses and kills voicing and autonomy." *(P1)* Another participant highlighted, "To treat patients successfully, a high level of team morale is essential, and guarding your opinion without listening to others ruins the picture of a supervisor." *(P11)*

Subtheme 2: Callous

One of the subthemes of narcissism extracted from the interviews is callousness. As an anti-prototype of medical leadership, this trait revolves around a lack of empathy, compassion, or sensitivity toward other people at work. Specifically, some nurses directly mentioned that those leaders who are callous can be cruel and inconsiderate. One participant encapsulated this sentiment by saying, "Nurses are not robots, and they have emotions and are very sensitive. If a supervisor cannot show empathy and sympathy, understand our motivation, and interact with concern, then what is the distinction between a robot and a supervisor? "(*P11)* I remember a doctor who had a top position in our hospital. Despite his prestige and social status, I was never deeply impacted by him since he was indifferent to patients' recovery. Once he told the receptionists not to accept those patients who cannot afford to pay their money for the received services." *(P6)*

Subtheme 4: Self-interested

One crucial point that nurses paid attention to was having a high level of social understanding during the COVID-19 pandemic. During crises, especially during the COVID-19 pandemic, self-interest could undermine trust and collaboration among nurses. As one nurse mentioned, "I remember one of my supervisors, who planned in a way to have the least work shifts and sat in this office and had fun with some nurses. This bothered me since the patients were dying and suffering. I do not call such a person a leader at all." *(P3)* Another participant said, "We had a nursing shortage at that time, and some of my colleagues worked two or three shifts. Some supervisors refused to cover shifts because they pursued their selfishness." *(P10)*

Theme cluster 4: Authoritarian

This cluster encompasses several key anti-prototypes of medical leadership during the COVID-19 pandemic. The second cluster has three subthemes: "tyrant", "narrow-minded", and "despotic".

Subtheme 1: Tyrant

The first antiprototype extracted in this subtheme is the tyrant. During the COVID-19 pandemic, there was much pressure on nurses, which could be harmful to them; in such a situation, tyrannical supervisors inflicted physical and psychological pain. One nurse stated, "A nonleader rules by fear, and during the pandemic, a leader was supposed to reduce our fear of the virus and not to add to the fear from the supervisor." *(P12)* In another interview, a nurse stated, "At times, during the COVID-19 pandemic, some doctors belittled the nurses for errors. In such an atmosphere, what arises is a lack of cooperation and patient care. I do not call such people leaders. Leaders are those who empower subordinates." *(P3)*

Subtheme 2: Narrow-minded

The words of some interviewees implied that a narrow-minded supervisor not only fails to influence nurses but also causes more human errors in the workplace, which ultimately reduces performance. Medical leaders should be able to see the big picture of what is happening and be receptive to different ideas and solutions to eradicate COVID-19. One nurse mentioned, "Leadership means

interaction with people on the basis of the information you possess. Misjudgment and remaining prejudiced about one person are not for sure the traits of a leader." (P14) In a different interview, the participant said, "He did not accept any ideas, suggestions from others, which caused teamwork to be truly hard for me. This virus was killing many people and it changed its nature, so we needed to find how to overcome it through having an innovative approach." *(P8)*

Sub-theme 3: Despotic

With a high level of responsibility, some supervisors may defend themselves by exercising absolute power and control over nurses without heeding the well-being of team members. As one nurse mentioned, "On the harsh days of treating people, we needed support and those who just pushed us towards doing activities unwillingly and by force could not have the functionality of a leader at all." *(P2)* A different participant said, "During the pandemic and even on the whole, one's position should not let that person think of others as slaves and command them what to do and what not to do." *(P15)*

The extracted themes and subthemes used in this research are depicted in Figure 1.

Figure 1- Implicit Medical Leadership Theories (IMLTs)

Discussion

Implicit leadership theories are cognitive structures formed in followers' minds that answer critical questions such as "Who is a leader?" and "Who is not a leader?" Therefore, ILTS is the most important element in leader emergence in different contexts.

Theoretical implications

First, several interviewees noted that a medical leader during the COVID-19 pandemic has become emotionally positive by showing high levels of self-confidence and self-efficacy. The preponderance of evidence has demonstrated that charismatic leaders are efficient during crises because of their greater management ability (e.g., Attieha & Zouhairy, 2021; Crayne & Medeiros, 2021) and ability to employ effective verbal and nonverbal tactics during crises (Radulović et al., 2021). Moreover, in the research on implicit leadership theories in Iran, charisma is one of the prototypes of ideal leadership (Sharifirad, 2021). This finding highlights that individuals are supposed to possess some features of ideal leaders to be judged as leaders during crises. In an international study, GLOBE found six global dimensions: charismatic/value-based, team-oriented, self-protective, participatory, humane, and autonomous. Among these, two dimensions are universal (charismatic/value-based and team-oriented leadership), whereas the remaining four vary among cultures.

Second, in the interviews, there was a significant emphasis on the 'ambidexterity' of medical leaders during the COVID-19 pandemic. Researchers have noted that complex decision-making entails possessing knowledge that transcends biomedical training (Rotenstein & Johnson, 2020). More specifically, formal management education is the essence of an effective crisis handler (Hølge-Hazelton et al., 2021). Medical knowledge is vital for treating, controlling, and curing patients' illnesses. Concurrently, establishing a safe atmosphere, as the task of leaders (Sinek, 2014), should help personnel tackle workplace problems through effective teamwork. Furthermore, the juxtaposition of quick decision-making, innovative methods, and strategic leaders is necessary for managing uncertain situations and envisioning the future (Farhan, 2021). In a study with a large sample, managerial skills, and adaptability were among the most important characteristics of effective leaders (Gris et al., 2022).

Third, in most interviews, the participants mentioned that a real medical leader has a panoramic view of the situation and heeds both patients and nurses. Our findings accentuate that responsible leaders build up trust, facilitate open communication, and foster team consciousness (Mehta et al., 2022). Researchers also concur that the unprecedented challenges caused by the COVID-19 pandemic in the healthcare system have led to a new horizon in front of those who are in charge of public health to prioritize patient safety and health while supporting the well-being of nurses and doctors (Aquilia et al., 2020).

Fourth, quality communication during the pandemic was among the most repeated topics in the nurses' interviews. In alignment with these findings, several researchers reported similar findings. Ball (2020) asserts that leaders should be highly present, frequent, thorough, and truthful communicators in addition to pragmatic optimal thinkers. In a different study, Gris et al. (2022) identified 93 characteristics and personality traits as fundamentals to be effective leaders in public health crises worldwide. Among these characteristics, communication skills were the most commonly reported. Nicola et al. (2020) introduce effective communication as a key attribute of successful leaders during a public health crisis since even the most efficient and best strategies may become ineffective through insufficient or ineffective communication, thereby exacerbating the prevailing threat.

Fifth, according to the available research on ILTs, both prototypes and anti-prototypes shape schemas about leaders and nonleaders. In terms of anti-prototypes, narcissism is considered one of the personality and behavioral traits that exclude individuals from leadership. The participants highlighted that during the pandemic, one of the most important elements in communication was being open to hearing others' voices. Previous research has also shown that high stress during a pandemic is the culprit for narcissism, leading to crisis underestimation (Liapis & Alevizopoulos, 2021). Moreover, narcissistic individuals are emotional vampires who drain others' energy (Carnevale et al., 2018), and nurses need a great deal of energy to help patients. Hence, narcissistic individuals cannot provide good conditions for nurses to endure crises. Under the mask of the inflated self of anarchistic people, a fragile personality often exists, an ego that is 'as delicate as foam' (Senior, 2020). Maak et al. (2021) reflected on narcissism and ideological rigidity as two major 'fault lines' of leadership. In their terminology, a fault line is a hidden

problem under normal conditions but functions as an Achilles heel, ending in the failure of stakeholders and society at large.

Sixth, the other extracted antiprototype is authoritarian. Several participants noted that the epoch of the COVID-19 pandemic was replete with diverse emotional and physical strains of the workplace and family. Moreover, some individuals halted their performance and put pressure on them by commanding, ignoring, and defending their false ideas, prescriptions, and decisions. D'Auria & De Smet (2020) assert that during a crisis, leaders are supposed to relinquish the idea that a top-down response will lead to stability. In the same vein, moving away from a top-down leadership approach to a more distributive style is essential during the COVID-19 crisis. This is aligned with the idea of Maak et al. (2021) that ideological rigidity can undermine compassion, which plays a crucial role in times of crisis. Rafiq et al. (2023) collected data from nurses and reported that despotic leadership in the workplace increases work-family conflict among nurses directly through emotional exhaustion. This clearly shows that authoritarianism and a commanding style during the pandemic halted leadership from the perspective of nurses.

Limitations and future research

There are several inherent limitations in this research. First, 18 nurses were selected and interviewed. Despite the endeavor of the researcher to choose the best and most experienced nurses to reach rich findings, this sample can be judged as small. Moreover, this research is limited to Iran and nurses from a limited number of sections and wards. Hence, the results should be generalized with caution. Future research can consider larger samples, and this research can also be performed in different countries to obtain a more comprehensive picture of what characteristics and traits are shaped in the minds of nurses with respect to leaders during the COVID-19 pandemic.

Conclusions

This research pursued the discovery of implicit medical leadership theories (IMLTs) of nurses who had experienced the health crisis of the COVID-19 pandemic. The interviews ended with the extraction of four leadership prototypes, "charismatic", "knowledgeable in both management and medicine", "committed and accountable" and "an effective communicator", and two antiprototypes, "narcissistic" and "authoritarian". This research provides novel implications for policymakers, researchers, and practitioners to help both the effectiveness of leaders and the emergence of more medical leaders in healthcare organizations, which are the most important systems in the world.

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Conflicts of Interest

The author has no conflict of interest.

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