Received: 1 December 2022 | Revised: 25 May 2023 | Accepted: 13 June 2023

DOI: 10.1002/nop2.1927

EMPIRICAL RESEARCH QUALITATIVE

NursingOpen Open Access WILEY

Unsafe doctor–nurse interactions in the process of implementing medical orders: A qualitative study

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Funding information
Tarbiat Modares University, Grant/Award Number: decree code: IR.MODARES.REC.1399.232

Abstract

Aim: This study aimed to explore challenges faced by clinical nurses in the process of implementing medical orders.

Design: A qualitative study using inductive content analysis.

Methods: Semi-structured individual interviews were carried out with 17 participants including nurses, nurse managers and medical doctors who were purposefully selected. The collected data underwent inductive qualitative content analysis.

Results: The main research finding was the category of 'unsafe doctor–nurse interaction'. It included three subcategories: 'conflicts in documenting and executing orders', 'not accepting the nurse's suggestions for writing and correcting orders' and 'failure to accept the responsibility of orders by the doctor'. Challenges in the professional relationship between doctors and nurses cause mistrust and conflict. They also enhance nurses' concerns about professional and legal issues in the workplace and endanger patient safety.

KEYWORDS
interaction, medical order, medication, nursing, patient safety, qualitative research

1 | INTRODUCTION

According to the International Council of Nurses (ICN), the nurse is an integral part of the healthcare system and has the duty to participate and cooperate with the healthcare team for patient care (International Council of Nurses, 2022). One of the nurses' main duties is to carry out medical care prescribed by the doctor, such as medicines management, taking samples for laboratory tests, changing the dressing and invasive practical procedures such as inserting urinary catheters (Ministry of Health and Medical Education of Iran, 2017). The implementation of medical orders requires that the nurse accompanies the doctor during the visit, provides necessary reports to the doctor, follows up on the order and documents it in the patient's file (Mirzabeigi & Salarianzadeh, 2018). Also, the provision of feedback to the doctor regarding the outcomes of patient care is the nurse's duty (van Schaik et al., 2016).

A medical order is the prescription of a procedure or a medication by the doctor for a patient. It is given in written format or by phone (College of Nurses of Ontario, 2018). Giving the correct order by the doctor and its appropriate implementation by the nurse influence patient safety (Park et al., 2018). Therefore, appropriate cooperation and interaction between the doctor and the nurse for carrying out orders prevent patient harm (Walia et al., 2022). It indicates that the responsibility for patient safety lies on the shoulder of both nurses and physicians (Jones & Treiber, 2018; Wang et al., 2018).

Differences in the methods by which nurses and doctors report healthcare cause challenges in the nurse–doctor interaction leading to practice errors (Abdelaziz et al., 2016; Li et al., 2020).

Establishing effective communication between the prescribing doctor and the implementing nurse can help control these challenges (Jimu & Doyle, 2019). Inadequate exchange of information between doctors and nurses about the effects and side effects of interventions can hinder correct execution of orders (Matziou et al., 2014). Sometimes doctors fail to properly recognize the professional role of nurses, which hinders proper cooperation between them leading to neglecting patients' needs. The challenge arises when nurses apply their knowledge directly to patient care, but doctors consider the nurse's performance to be only the execution of orders. This approach by doctors has negative effects on the treatment process and the quality of patient care (Elsous et al., 2017). This is noted that patient care is the responsibility of both doctors and nurses (Flynn et al., 2016).

After giving an order by the doctor, the nurse takes the responsibility to control the order, suggest changes based on the patient's needs, monitor the effect and side effects of the intervention and give feedback to the doctor (Pirinen et al., 2015). According to Jones and Treiber (2018), only 8% of doctors fully recognize nurses' role in decision-making in the healthcare team (Jones & Treiber, 2018). Nurses often are asked to obey orders, but some doctors give nurses the right to express their opinions about orders and become involved in decision-making (Walia et al., 2022). Respectful and interactive cooperation between the doctor and the nurse improves patient care outcomes (Sabone et al., 2020) and lack of respect and non-acceptance of the nurses' professional role damage their dignity and overshadows their efforts to provide healthcare services to patients (House & Havens, 2017).

1.1 | Aim of the research

Considering that nurses are responsible for the implementation of medical orders and the doctor–nurse interaction is the pillar of the correct implementation of orders, challenges in the process of implementing orders should be identified, and appropriate measures should be taken to improve this nursing task. Therefore, this research aimed to explore challenges faced by clinical nurses in the process of implementing medical orders.

2 | METHODS

2.1 | Design

A qualitative research was carried out. It explores and provides deep insights into social phenomena by gathering data about participants' experiences, perceptions and behaviours (Tenny et al., 2022). This article has been prepared and reported using the consolidated criteria for reporting qualitative studies (COREQ) (Tong et al., 2007) (Supplementary file).

2.2 | Participants and setting

The study participants were 17 people including 12 women and 5 men. They were 13 clinical nurses and one clinical nurse supervisor, and two medical doctors such as one orthopaedic surgeon and one anesthesiologist (Table 1). The reason for the inclusion of medical doctors in this research was that their perspectives could provide valuable insights and comparative perspectives into the dynamics of the doctor–nurse interaction.

The participants were purposefully selected from selected hospitals in an urban area of Iran. The nursing office at the hospitals helped with the selection of the probable participants based on these inclusion criteria: having at least 6 months' work experience in clinical settings and implementing medical orders in practice. For the doctors, the criteria were having at least 6 months' work experience and documenting medical orders to be implemented by nurses. The common entry criteria for all participants were their willingness to share their work experiences.

The main researcher (MA) achieved their workplace telephone numbers from the nursing office. She contacted the participants and explained the research purpose and answered their questions in order to resolve their doubts about the research. All participants who were approached, agreed to take part in this study.

2.3 | Data collection

This study was conducted between May 2021 and July 2022. Data were collected using semi-structured individual interviews by the main researcher (MA) as a doctoral student who had no relationship with the participants from the past. Due to the COVID-19 pandemic and limitations for attendance in the nursing department, the interviews were conducted by making phone calls. The date and time of the interviews were determined at their convenience. The flexible nature of semi-structured individual interviews facilitated the deep exploration of their experiences regarding the research phenomenon.

An interview guide was developed by the research team and was pilot tested before use. The interviews were started with a general question as follows: 'during the process of implementing medical orders, how do you interact with doctors/nurses?' Exploratory questions were asked to deeply understand the challenges and obstacles faced in the process of implementing medical orders and remove ambiguities. They were 'how it played as a barrier?' 'how the barrier could be removed to facilitate the interaction' 'can you explain it more?' 'can you bring an example for it?' 'what happened next?'

Each participant was interviewed once. The average duration of the interviews was 63 min. After interviewing 15 participants, data saturation was achieved, where additional data collection was unlikely to reveal any new data and a point of informational redundancy was reached. However, two additional interviews were conducted to ensure the adequacy of the data collection to answer the research question.

TABLE 1 Demographic characteristics of the participants.

Participant no.	Gender	Education level	Work experience (year)	Workplace
1	Female	Bachelor in Nursing (BScN)	12	Intensive care unit (ICU)
2	Female	(BScN)	22	Internal ward
3	Female	(BScN)	20	Surgery ward
4	Female	(BScN)	3	Oncology ward
5	Female	Master in Nursing (MScN)	5	Emergency ward
6	Female	(BScN)	4	Paediatric ward
7	Female	(BScN)	8	Skin and burns ward
8	Male	(BScN)	4	Trauma ward
9	Male	(MScN)	8	Surgery ward
10	Female	(BScN)	12	Surgery ward
11	Female	(MScN)	12	Cardiac care unit (CCU)
12	Female	(MScN)	20	ICU
13	Female	(BScN)	14	Emergency ward and CCU
14	Male	Anesthesiologist	5	General ward and CCU
15	Male	Orthopedist	10	Surgery ward
16	Male	(BScN)	16	Emergency ward and internal ward
17	Female	(BScN)	5	Surgery ward

2.4 | Data analysis

This qualitative research was conducted using the inductive qualitative content analysis approach (Graneheim & Lundman, 2004) by a research team who had many experiences with conducting qualitative research. Content analysis as a descriptive qualitative approach is used to investigate social and health-related phenomena (Vaismoradi & Snelgrove, 2019). An inductive approach to the content analysis was used as it involved identifying patterns and categories based on the data itself, rather than using a preexisting theoretical framework. Besides its flexibility, data analysis products are derived directly from the data and are more likely to be grounded in the experiences and perspectives of the research participants (Kyngäs, 2020).

Simultaneously with the data collection, the data analysis was performed by the main researcher and with the collaboration of the research team (Graneheim & Lundman, 2004). Data collected from each interview session was analysed and then other subsequent interviews and their analyses were performed. The data analysis process consisted of the following steps:

- The audiotaped interviews were transcribed *verbatim*.
- The transcriptions were read several times to achieve a general understanding of the participants' statements and become fully familiar with the pros and cons of data.
- The text as a unit of analysis was divided into meaning units consisting of texts regarding the nurse–physician interaction.
- The meaning units were condensed, and descriptions were created to be close to the transcriptions and facilitate their interpretation.
- Given the nature of the nurse–physician interaction, the focus of the data analysis was to find what the transcriptions said and how the participants dealt with the obvious components of this social phenomenon, referred to as the manifest content. Therefore, the meaning units were condensed and later abstracted and labelled with codes that allowed the data to be thought about in a new and different way.
- The codes were continuously compared together by drawing coding trees and similar codes were grouped together and labelled as subcategories. They were mutually exhaustive and exclusive as no data fitted into more than one subcategory.
- Category was developed as an interface to connect subcategories and as the main product of data analysis (Graneheim & Lundman, 2004; Vaismoradi et al., 2016). An example of the data analysis process has been presented in Table 2.

2.5 | Ethical considerations

This study was approved by the Ethical Committee affiliated with Tarbiat Modares university (decree code: IR.MODARES.REC.1399.232). Participation was voluntary and the participants were aware of the research purpose and method and could withdraw from the study at any time. The interviews were audio-recorded with the consent of the participants. All ethical measures including honesty in presenting results, confidentiality of data and anonymity of the participants were carefully considered.

TABLE 2 An example of the data analysis process.

Semantic unit	Open code	Subcategory	Category
The child had an order for the administration of vancomycin. I mistakenly injected vancomycin quickly, and the patient became short of breath. When the pediatrician came and realized that I made a mistake, he shouted and said, "you don't know anything." (Participant 4) The patient was in severe pain, I called the surgeon, and he said: "I just took a pill and fell asleep, why did you wake me up?" I will inject the patient with distilled water so that I don't have to call the doctor. (P10)	Inappropriate behaviour of the doctor when the nurse executes the order incorrectly. Injection of distilled water due to the fear of the doctor's protest about the ineffectiveness of the pro re nata (PRN) order. The doctor's sharp protest to the nursing office in case of incorrect implementation of orders. Failure to accept the nurse as a knowledgeable person of the patient's condition. A large variety of prescriptions from medical categories for the patient and nurse's confusion.	Conflicts in documenting and executing orders	Unsafe doctor–nurse interaction
In the pediatric ward, the medical resident prescribed diazepam, but the child's seizure was not controlled, I informed the doctor about the need for a neurological consultation, and he agreed. The neurologist changed the child's medication and the seizure was controlled. (P6) The child had urinary retention, and I said to the doctor, 'do you want me to probe him?' He said 'no, don't you know that patients get infections quickly in the ICU?' The patient was in pain until that night and finally the doctor asked me to probe him. (P1) The junior medical resident ordered one liter serum for a patient with kidney failure. I called the doctor in charge and said that I think it was too much because the patient had no urination. He said that 'you should follow the order.' Later, I heard that he asked the medical resident to correct the order. (P3)	Improving the patient's medical order following the nurse's suggestions. Failure to accept the nurse's treatment suggestions by the doctor. Non-acceptance of the objection of the resident's order by the responsible doctor. Not offering treatment to the doctor due to disrespect and ignorance of the nurse. Rejection of the nurse's suggestions due to the ignorance of the patient's condition.	Not accepting the nurse's suggestions for writing and correcting orders	
The doctor said on the phone to discharge the patient after cardiac consultation, I also took an echocardiogram and discharged the patient; then he said 'I asked to send the patient to the nursing home.' Whatever the doctor said was listened by two nurses and were signed. The nurse's seal has no value at all and nothing can be proven by it. (P9) The nurse called and said that the patient was agitated and had tachycardia. I prescribed propranolol and after visiting the ward, I saw that the patient had tachycardia due to severe vaginal bleeding following childbirth, and I did not stamp my previous order. (P14)	The doctor's failure to accept responsibility for the phone order and the nurse's inability to prove it. Not accepting the phone order from the doctor because of giving an incorrect history to the nurse. Reprimanding the nurse who executed the phone order because the doctor does not accept responsibility. Changing the medical resident's telephone based on the nurse's comment.	Failure to accept the responsibility of orders by the doctor	

2.6 | Trustworthiness

The four criteria of credibility, confirmability, dependability and transferability were used for the scientific accuracy of this qualitative research (Lincoln et al., 1985). Credibility was established by member checking. A brief report of the findings and transcriptions were given to five participants to match the researcher's interpretations of the data with the participants' experiences. For dependability, peer checking by two qualitative researchers who were not member of the research team was performed. They were asked to read the report on the research process and share their perspectives about it. They confirmed the accuracy of the data analysis process. The researcher had the experience of working in practice as a clinical nurse. Therefore, for confirmability, she wrote memos and reflective notes on her own personal perspectives and bias of the research phenomenon to organize her thoughts and set aside her own perspectives so that she could approach the interview with an open mind. The research process was documented and reported with all details to ensure the transferability of findings to other healthcare settings with a similar context. Also, the maximum variation in sampling was achieved in terms of gender, education level, work experience and service department. Accordingly, those participants who had a wide range of experiences or characteristics related to our research phenomenon were included.

3 | RESULTS

The category of 'unsafe doctor–nurse interaction' in the process of implementing medical orders indicated the type of professional relationship between doctors and nurses in clinical practice. It included three subcategories: 'conflicts in documenting and executing orders', 'not accepting the nurse's suggestions for writing and correcting orders' and 'failure to accept the responsibility of orders by the doctor'. The subcategories have been described below using direct quotations from the participants.

3.1 | Conflicts in documenting and executing orders

The unprofessional behaviours of doctors when nurses incorrectly executed medical orders caused discomfort among the nurses. Therefore, the nurses preferred to hide the established and incorrectly executed orders from doctors and do not report them.

> By mistake, I referred a wrong patient to the ultrasound department. I apologized for my mistake, but the doctor became agitated and argued about it. As much as I can, I will not let the doctor know about my mistakes. (Participant 3)

Being new to the work or not being familiar with routines were the causes of misunderstanding medical orders by the nurses. It led to strong objection by the doctor and consequently the mistreatment of the nurse.

> I just came to this department, and the doctor ordered that the patient was ready to be transferred to the operating room. I also prepared the patient and waited for the doctor to call. My understanding was that the doctor would call me, but he did not. At the end of the work shift, I called the doctor and said that I waited for him. He was angry and just screamed. (P9)

The doctors' inappropriate treatment of nurses was attributed to nurses' contacts to inform them of the ineffectiveness of medications and request for changes in the type or dose of medications. It led the nurses to take illegal and unethical palliative actions in patient care.

> Cancer patients constantly ask for painkillers. When I call the doctor, he becomes unhappy with my call. Therefore, I have to inject the patient weak painkillers or even a placebo. (P4)

Medications that were administered to the patient without the doctor's prescription sometimes were not documented in the nursing report due to the fear of legal consequences.

> I had a patient with an amputated hand who was in a lot of pain. I called the doctor, and he answered rudely why I called him and said 'do something yourself, aren't you a nurse?' I administered ketorolac to the patient, but I never documented it in the patient's file. (P7)

The doctor's failure to accept the nurse as a knowledgeable person who was aware of the patient's health condition hindered them to accept the nurses' therapeutic suggestions. Patient safety was endangered by insisting on orders and ignoring the nurse's advice.

> The patient's oxygen saturation was below 90 percent, and the doctor wanted to refer the patient for compound tomography outside the hospital. I told him that the patient was not eligible to be referred, but the doctor said 'I know the patient's condition better than you.' The patient was referred, but died because of apnea. I could not do anything to save the patient. (P1)

Confusion about contacting the doctor to get medical orders for a very sick patient was a big challenge for the nurses. The doctor often objected to the nurse's call and sometimes the nurse's failure to call the doctor led to the doctor's protest. Not answering the phone call by the doctor led to the feeling of indecisiveness about patient care among the nurses. Therefore, the nurses had to act based on personal and past work experiences, which ignited the doctor's objection.

> The sick doctor did not answer the phone; I acted according to the protocol. But the doctor protested and said why I did not give medications. Some other doctors might ask why I called them. I do not know what to do. (P11)

The incorrect implementation of medical orders and inappropriate feedback by doctors regardless of the reason for the failure frustrated the nurses.

> Because of the patient's respiratory distress, I did not administer the medication; the medical intern shouted 'why did not you give the medication?' I became upset so that I decided to quit nursing. I no longer pay attention to the patient's health condition and just follow the given order. (P16)

The doctors were also unhappy with the carelessness of some nurses in carrying out medical orders and the incorrect execution of them.

> I wrote an order for a sick patient, but it was not executed. Nurses said that they were very busy. I had to

> constantly call to see if the order was implemented or not. (P14)

> If the nurse does not follow my orders correctly, I will quickly go to the nursing office and complain about it, because the patient may get hurt. (P15)

3.2 | Not accepting the nurse's suggestions for writing and correcting orders

The nurses executed medical orders after receiving them by phone along with a nurse colleague and put the seal of both as the order receivers. Some doctors refused to document them in patients' files and staff nurses were unable to do so. It made the nurses dissatisfied, caused mistrust to the doctor among the nurses and concerned them about future legal troubles.

> The doctor ordered taking a blood culture. My colleague and I listened and sealed the order. The doctor later came and said 'I told you to send a urine culture'. The two of us listened and sealed it. Unfortunately, the nurse's seal is worthless. (P10)

> The nurse called the doctor and took the order and implement it. Later the doctor came and did not confirm what he ordered. It has happened several times and now conversations on the phone are recorded so that if there is a problem, it can be proven. (P11)

Failure to accept medical orders given by the doctor on the phone caused legal problems for the nurses and created tensions in the nurse–doctor professional relationship.

> There was an emergency patient in the ward and the nurse called the doctor several times. The doctor ordered to give painkillers, but the patient died, and the doctor kept silence. Since the court did not accept the seal of the two nurses, the emergency medicine doctor testified. Such an incident makes the nurse distrustful to doctors. (P12)

As with the healthcare context, the doctor or the medical resident should have assessed the patient himself/herself before giving medical orders. However, orders on the phone were given without examining the patient and only based on the nurse's history. It provided grounds for the doctor not to accept responsibility for their orders.

> Sometimes I do not accept the order that I give over the phone because the nurse gives an incomplete history of the patient and I give the order according to it. When I visited the patient, I found that the order was not suitable for him. (P14)

3.3 | Failure to accept the responsibility of orders by the doctor

The nurses spent most time with patients and they knew more about the patient's health condition than doctors. Sometimes the nurses would be asked to provide therapeutic suggestions to the doctor. The implementation of nurses' suggestions would often speed up the patient's recovery if they would be implemented.

> The patient's blood sugar was constantly high and the doctor prescribed him metformin. I suggested to the doctor to implement the insulin protocol. He agreed and the patient's blood sugar decreased. (P2)

The non-acceptance of the nurses' therapeutic suggestion by the doctor and the forced silence of the nurses in front of suffering patients were the nurses' dominant negative experiences.

> There was a child with an open leg flap who was in a lot of pain. The medical resident asked me to open the bandage. I answered 'shall we take the patient to the operating room and give him painkillers?' He shouted 'no, it is not necessary.' I became silent and the patient was suffering. (P7)

The doctors did not intend to accept the nurses' suggestions and believed that the nurses did not know much about the patient.

> I usually reject nurses' suggestions, because they do not know much about the patient's health condition. (P15)

Contradiction or ambiguity in medical orders documented by medical students in teaching hospitals was a big challenge. The nurses became confused with the execution of medical orders and had to call the responsible doctor to ensure the accuracy of medical residents' orders and prevent patient harm.

> The medical resident and the medical intern each one gives an order independently, which often contradicts each other. For instance, they ordered potassium chloride to a patient whose blood potassium's level was high. I called the doctor and he rudely answered 'not to give the medication'. (P4)

4 | DISCUSSION

This study aimed to explore challenges faced by clinical nurses in the process of implementing medical orders. Due to various individual

and interpersonal reasons, some shortcomings were reported by the participants with potential consequences for patient safety and quality of care. The category of 'unsafe nurse–doctor interaction' indicated inappropriate and unprofessional communication between doctors and nurses in the implementation of medical orders. The presence of conflict in the healthcare team has an adverse impact on the productivity of team members and reduces their efficiency in practice (Piryani & Piryani, 2019).

The results of this research showed that nurses' refusal to implement medical orders due to the lack of awareness or reliance on their own clinical judgement led to inappropriate interventions by doctors. Sometimes the nurses hid established orders to avoid this situation or did not evaluate the patient before implementing medical orders. The nurses called the doctor to inform him/her about the ineffectiveness of medications, but they were protested by the doctor and were forced to arbitrarily administer medications. They could not register their interventions to avoid legal troubles. Giving medications to the patient by the nurse without the doctor's prescription can harm patient (Güneş et al., 2014). The fear of blame and disrespect makes nurses to hide their actions (Aljabari & Kadhim, 2021).

The incorrect implementation of medical orders by the nurses or disregarding them by doctors led to the nurse–doctor tension and concerns about patient harm. The nurses gave therapeutic suggestions, which were not often accepted by the doctor, because of not recognizing the scientific and professional nature of nursing profession. Nurses are considered to have a lower position in the healthcare team and are the executors of medical orders. The quality of healthcare services and comprehensiveness of care are associated with nurses' needs to be treated with respect (Gjessing et al., 2022; Pakpour et al., 2019). Disregarding nurses' advice leads to a sense of frustration and forces them to remain silent in front of the doctor's wrong medical orders leading to patient harm. Nurses are obliged to check doctors' orders and if they find them inappropriate to the patient's clinical conditions, they have the legal responsibility to refuse to implement orders and report them to authorities (Borrott et al., 2017). It highlights the proper professional communication between the nurse and the doctor in patient care (Beuscart-Zéphir et al., 2007). In a study in Norway, some doctors stated that nurses expressed their opinions indirectly or vaguely so they preferred to discuss the treatment process and the patient's medication orders among themselves. Accordingly, nurses refused to express their opinions due to the doctor's unwillingness to hear them (Gjessing et al., 2022). Teamwork and respectful cooperation between doctors and nurses have great effects on patient safety and the provision of high quality care (Ma et al., 2018). According to a study in Singapore, doctors believed that nurses were professionals and should express their opinions in the treatment process to improve care outcomes and not just follow doctor's orders (Tang et al., 2018). Appropriate professional relationship with nurses has been defined as accepting nurses' therapeutic suggestions and consulting with nurses about medication orders and giving feedback to doctors about the therapeutic regimen (Borrott et al., 2017).

In the present study, doctors considered themselves more aware of the patient's health condition and had a sense of controlling power for giving orders. Repressive environments due to the dominance of the medical discipline cause nurses to feel powerless (Badejo et al., 2020). Also, the directive and authoritarian relationship causes nurses to make less effort to provide care (House & Havens, 2017). In a study in the UK, respectful professional communication between the doctor and the nurse had positive effects on patient care (von Knorring et al., 2020).

Failure to register and accept the responsibility for telephone orders by the doctor was mentioned by the nurses, which created challenges in the nurse–doctor interaction. Nurses' inability to prove the accuracy of medical orders taken over the phone caused concerns among the nurses. Not documenting medical doctors given on the phone has been reported in the past. Failure to document verbal orders and non-transparent orders are the causes of many medical errors that endanger patient safety (Walia et al., 2022). The lack of a single policy for receiving telephone orders is a big challenge in implementing such orders (Li et al., 2020).

4.1 | Study strengths and limitations

The study phenomenon was investigated from various angles and based on a maximum variation in sampling given the participation of key healthcare providers including nurses, nurse managers and physicians involved in implementing medical orders. It also provides confidence about the depth and breadth of data collection. The sensitivity of the study phenomenon and its interconnection with practical errors and patient safety might have caused the participants to censor some important data. To reduce its impact on the quality of the data collection, the researcher ensured the participants of their anonymity and data confidentiality throughout the study process and publication of findings.

5 | CONCLUSION

Unprofessional and unsafe interactions between doctors and nurses are the causes of mistrust and conflict leading to work pressure and burnout among nurses. Lack of appreciation of nurses' roles by doctors, disrespectful and repressive behaviours and the authoritarian structure of healthcare management facilitates the formation of unsafe interactions. They can hinder the safe implementation of medical orders by discouraging nurses to check orders before their implementation and documentation in patients' clinical files. Inappropriate treatment of the nurses in the case of making mistakes in the execution of medical orders, rejection of their therapeutic suggestions, and lack of taking responsibility for medical orders by doctors damage the professional relationship between doctors and nurses.

6 | IMPLICATIONS FOR THE PROFESSION AND/OR PATIENT CARE

Appropriate interactions between the doctor and the nurse are necessary for the correct implementation of medical orders by nurses and the prevention of patient harm. Challenges identified in the doctor–nurse interaction in implementing medical orders can be used in developing educational initiatives and discussion forums to resolve conflicts.

Nursing policies should be devised to create a calm and safe therapeutic environment in the healthcare system that preserve patient safety. Also, organizational policies should be devised to acknowledge nurses' professional roles in patient care, respect their collaboration in the healthcare team with other team members and protect them when they are subjected to legal malpractice lawsuits.

AUTHOR CONTRIBUTIONS

The authors contributed to the design and implementation of the research, to the analysis of the results and to the writing of the manuscript. MA, FA, EM and MV: Study design and conceptualisation; MA: Data collection; MA, FA, EM and MV: Data analysis and interpretation; MA, FA, EM, MV: Manuscript writing; FA, EM and MV: Supervision.

ACKNOWLEDGEMENTS

This study was supported by Tarbiat Modares University (decree code: IR.MODARES.REC.1399.232). This study was one part of the Ph.D. dissertation by the first author (MA). The authors would like to thank all participants for their participation in this research.

FUNDING INFORMATION

This research was supported by Tarbiat Modares University, Tehran, Iran.

CONFLICT OF INTEREST STATEMENT

None declared.

ETHICS STATEMENT

The research process was approved by Tarbiat Modares University that also corroboratedits ethical considerations. The participants signed the informed consent form after receiving information aboutthe study. All considerations for anonymity and confidentiality were consideredwith care by the research team.

DATA AVAILABILITY STATEMENT

Restrictions apply to the availability of data from this research because of the anonymity of the participants and confidentiality matters.

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SUPPORTING INFORMATION

Additional supporting information can be found online in the Supporting Information section at the end of this article.

How to cite this article: Asadi, M., Ahmadi, F., Mohammadi, E., & Vaismoradi, M. (2023). Unsafe doctor–nurse interactions in the process of implementing medical orders: A qualitative study. *Nursing Open*, *00*, 1–9. https://doi.org/10.1002/nop2.1927