

# Pathways for Identifying Problems in Nursing Quality on-Site Supervision: A Descriptive Qualitative Study

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**Background:** When the nursing department of our hospital checked the ward round records of the head nurse, it was found that some problems could not be found during rounds, and most of the problems found were superficial; Some studies have also found that most nursing managers are only going through the motions during rounds or are unable to identify problems due to a mismatch between their professional competence and the supervised department, or fail to identify superficial or deep-seated problems, making the quality of nursing supervision unsatisfactory.

**Purpose:** To sort out the ideas and ways for nursing managers to identify problems in on-site supervision of nursing quality and to provide ideas and directions for being able to identify problems, identifying problems quickly, and identifying high-quality problems in the supervision.

**Methods:** A descriptive qualitative study was used to conduct face-to-face semi-structured interviews with 14 nursing managers from Bethune Hospital in Shanxi, China. The current problems of nursing quality supervision were combined with the 5W1H analysis method to form an interview outline, and a total of 8 questions were set up to interview 14 nursing managers to understand how nursing managers identified problems in supervision. Thematic analysis was used to analyze the data and extract themes.

**Results:** Three views and six ways of problem identification were crystallized: three views were direct access, comparison discovery, and deep excavation; and six ways were listening, looking, asking, checking, visiting, and tracking. The “Pathways for identifying problems in nursing quality on-site supervision” was finally formed.

**Conclusion:** The pathway for identifying problems in nursing quality supervision is scientific, reliable, and can be used as a guideline for identifying problems in nursing quality supervision.

**Implications for Nursing Practice:** The connotation of nursing quality supervision can be improved through this pathway, and the development of nursing discipline can be promoted.

**Impact on Nursing Management:** The “Pathways for identifying problems in nursing quality on-site supervision” is a clear pathway that helps nursing managers to quickly identify problems, especially during interdepartmental nursing quality inspections.

**Keywords:** quality of nursing, site supervision, problem identification pathway, problem identification way, problem identification viewpoint

## Introduction

Nursing quality is one of the most important markers for measuring the quality of hospital medical services.<sup>1</sup> Nursing quality supervision is a common way for nursing managers to evaluate the quality of nursing care by collecting relevant

data through field inspections. Although the establishment of part-time quality control nurse positions in recent years has been proven to play an important role in nursing quality supervision, most hospitals still adopt the three-level quality control model of nursing department, ward, and department, and most of the three-level quality control members are nursing managers.<sup>2,3</sup> As a result, nursing managers remain the main body of nursing quality inspection, play a key role in driving quality improvement, have a direct impact on the quality of nursing provided, and play a more important role in quality improvement than any other health professional.<sup>4</sup> In the “14th Five-Year Plan” period, the development of nursing career is proposed to adhere to the problem-oriented,<sup>5</sup> which requires nursing managers to actively identify problems in their daily work.

In practice, problems are common and unavoidable,<sup>6</sup> but the study found that most nursing managers in the process of ward rounds is a formality,<sup>7</sup> or due to the mismatch between professional competence and the department under supervision, problems cannot be found,<sup>8</sup> or the problems found are mostly superficial problems, and cannot be found in-depth problems,<sup>9</sup> so that the quality of nursing supervision cannot achieve the desired effect;<sup>8</sup> and the nursing department of our hospital When reviewing the records of nurse leaders’ inspections, we found that some nurse leaders had superficial problems such as not being able to detect problems and most of the problems detected were “Failure to sign the nursing record sheet”.

Domestic and international studies on how to conduct problem identification in nursing quality supervision have focused on exploring the management of problem quotas,<sup>7</sup> exploring the ability to identify problems<sup>10</sup> and positions,<sup>11</sup> and the significance of identifying problems,<sup>9,12</sup> as well as identifying problems through the Structure-Process-Outcome Nursing Quality Model,<sup>13</sup> Shared Governance,<sup>14,15</sup> and the Nursing Department’s Quality Control Officer Post,<sup>2</sup> but have not explicitly proposed how to perform problem identification.

Problem discovery is the basis for both clinical quality improvement<sup>16</sup> and scientific research.<sup>17</sup> Therefore, it is particularly important to identify problems, especially those with deep depth. Based on the fact that nursing managers are the main body of nursing quality supervision, this study intends to conduct semi-structured interviews with nursing managers who have participated in nursing quality on-site supervision to understand their ideas and methods for finding problems, and intends to construct a pathway for problem identification in nursing quality supervision in order to provide ideas and directions for nursing managers to conduct problem identification in quality supervision.

## Study Data and Methodology

### Methodology

Descriptive qualitative research was used to explore how nursing managers identify problems in nursing quality supervision through semi-structured interviews. The study was approved by the hospital ethics committee.

### Data

#### Interview Subjects

Convenience sampling method was used to select the interview subjects according to the maximum difference sampling strategy<sup>18</sup> to gain insight into how the nursing managers identify problems in nursing quality supervision. From December 2023 to January 2024, Nursing managers from Shanxi Bethune Hospital were selected as the study subjects. The inclusion criteria were: ① More than 1 year in nursing management; ② having participated in nursing quality supervision; ③ participating voluntarily. The sample size was based on the criterion that the information reached saturation, with a total of 14 respondents, and the general information is shown in [Table 1](#).

#### Interview Outline

The outline of the interview is based on the research question “How to identify problems in the quality of nursing care on-site supervision”: ① How do you identify problems in the quality of nursing care supervision? ② Can you find the basis for the problems identified in each inspection in the existing work standard? Give examples. ③ Do you think the problems you found are superficial or deep-rooted? Give examples. ④ What do you think are the reasons for not being able to identify problems or for identifying superficial problems? ⑤ Do you use the same approach in conducting quality inspections in your department as you do in other departments? Why? ⑥ Do you think that the depth of problem identification in quality inspection is related to whether or not the inspection is conducted in your department? Why? ⑦

**Table I** General Information of Respondents

Number	Gender	Age	Management Experience	Department	Duties	Professional Title
N1	Female	40	11	General surgery	Chief Nurse Manager	Deputy Chief Nursing Officer
N2	Female	38	7	Organ Transplant Center	Specialist Nurse Manager	Nurse practitioner-in-charge
N3	Female	50	15	Cardiology Department	Specialist Nurse Manager	Deputy Chief Nursing Officer
N4	Female	38	3	Otolaryngology	Specialist Nurse Manager	Nurse practitioner-in-charge
N5	Female	37	3	Tumor Center	Specialist Nurse Manager	Deputy Chief Nursing Officer
N6	Female	49	14	Department of gynecology and obstetrics	Chief Nurse Manager	Deputy Chief Nursing Officer
N7	Female	44	3	CCU	Ward Nurse Manager	Deputy Chief Nursing Officer
N8	Male	37	3	Emergency surgery medicine	Ward Nurse Manager	Nurse practitioner-in-charge
N9	Female	33	3	Neurosurgery	Ward Nurse Manager	Nurse practitioner-in-charge
N10	Female	51	20	Department of critical care medicine	Chief Nurse Manager	Chief Nurse
N11	Female	49	17	Emergency Internal Medicine	Specialist Nurse Manager	Chief Nurse
N12	Female	47	15	Urology	Specialist Nurse Manager	Deputy Chief Nursing Officer
N13	Female	38	3	Department of General Medicine	Head Nurse of the Department	Deputy Chief Nursing Officer
N14	Female	54	18	Department of Nursing	Deputy Director of Nursing	Chief Nurse

What capabilities do you think are needed for problem identification? ⑧ Do you think the depth of problem identification in quality supervision is related to the criticality of the patient's disease?

### Data Collection

Before the formal interview, we fully communicated with the interviewee and explained the purpose, significance, and process of the study, and signed the informed consent form. The interviews were one-on-one face-to-face interviews in a quiet, independent conference room. During the communication, audio recording and transcription were conducted, and the subtle changes in the psychological emotions, postural behavior, and facial expressions of the interview subjects were observed, and the valuable questions were appropriately pursued and supplemented with transcripts. No guidance, no hints, no evaluation during the interview, the interview time is 20–30 minutes per person.

### Data Analysis

The researchers will transcribe the audio recording into text within 24 hours after the end of the interview, and two researchers will check the accuracy, return to the interviewee for verification if in doubt, and supplement it with on-site notes. According to N1 to N14, the interview record number of the interview subjects was numbered and independent files were established, and N vivo 12.0 software was used to assist in the management of interview data. The analysis of the data using the Braun and Clarke Thematic analysis method<sup>19</sup> consisted of six steps: familiarization with the data, initial coding, theme finding, theme review, definition and naming of themes, and report production. After the data is transcribed, two researchers who are not involved in the theme but are engaged in the field will have a group discussion on the formed code, and finally complete the refinement and sublimation of the theme.

## Results

Thematic analysis was used to analyze the interview data, and two main themes and nine sub-themes were identified for the problems identified in nursing quality on-site supervision (Table 2). Each theme will be explored in more detail in the following sections.

### Problem Identification Through Multiple Perspectives

#### Direct Access

Directly obtained are the work status and quality control standards, core systems, work system, job responsibilities, operating procedures, and other work norms for comparison, inconsistency is the problem. N1-2 “I go to other departments to check because I do not know the patient’s condition, is to check against the quality control standards, for example, after completing nursing operations on bed 1, the nurse went directly to bed 2, which is a sign of not paying attention to hand hygiene”. N13 “During the resuscitation, the doctor dictated ‘half a stick of morphine’, and the nurse directly took the medicine and injected it, and both the doctor and the nurse have not properly implemented the system of implementing the verbal medical order”. N6, N7 “I will follow the nurse to see if the nurse’s workflow is correct for each operation, and whether it is in accordance with the operating procedures, such as ‘calling the patient’s name directly without taking an open check”, “The sterilized area is less than 8 cm in diameter at the time of venipuncture”. N2, N3, and N8 mentioned that “ When I went to other departments for check-ups, because I don’t know the situation of the other department, I just checked by the standards, and I can find out the problems if the patient is in critical condition, but I cannot find out the problems if the patient’s condition is not serious, such as in the breast department or the ophthalmology department”. N10 and N12: “During a ward round, the nurse assistant was seen removing the Holter electrocardiogram for the patient, and the nurse who was piercing the patient on the side ignored the whole process, indicating that the nurse did not perform her duties”.

#### Comparison Discovery

Comparison discovery is when problems are not seen in routine situations, but problems are found when comparing the current status of the work with the best, the worst, the peers, and oneself. N4 “Sometimes the nursing department will praise some departments, and I will compare with this department, and I have found out that there are deficiencies in my own department”. N5 “Sometimes I am also I am inspired by the departments that have been criticized, and when I attended the nursing adverse event workshop, when we analyzed the problems, I also found that there are problems in this area in our department”. N4 “I cannot find out the problems when I have been in my own department for a long time. Whenever I go to other departments for check-ups, I see that others do things differently from myself, reminding me to familiarize myself with the standards again, I may be able to find problems in the department being checked, or when I come back to look at my own department, I may find that there is a problem”. N9 “I also compare my own work every month, and from the data and charts, I can see the problems in the work of the team that I lead. Team has problems in their work”.

**Table 2** Themes and Subthemes

Themes	Sub-themes
Three viewpoints to identify problems	Direct access: quality control standards, core systems, work system, job responsibilities, operating procedures Comparison discovery: comparison with the superior, the inferior, the equal, and the self Deep excavation: The process is correct but the outcome is not good, there are repeated problems of principle, security incidents occur, and contradictory results in multiple ways
Six ways to identify problems	Listen: Listen to the introduction, listen to the nurse’s report, listen to the feedback, listen to the health education, and listen to the nurse handover Look: see the patient, look at the equipment, look at the operation, look at the environment, look at the shift Ask: Ask the patient, ask the nurse, ask the patient’s family Check: check information, check medical records, check equipment Interviews: Interviews with leaders, doctors, and patients’ families Track: track routes, track patient outcomes, track answers

## Deep Excavation

Deep excavation means that there is no problem or only superficial problem from the surface, deeper problems can be found when digging deeper, because not every work can be found in the standard, so it needs to be dug. N14 “When I saw that the nurse’s workflow was correct but the patient’s ending was not good, I thought that there might be a problem behind it, for example, in the nursing record, at 9 o’clock, the blood pressure was 85/50 mmHg, 9:10, 250 mL of mannitol is placed on a rapid IV drip. And after about ten minutes, the patient’s blood pressure dropped and doctors and nurses began resuscitating him. Although the medical advice does require mannitol Q12 hours intravenous drip, 9:00 exactly is also the time that should be the time for intravenous drip, the nurse’s operation on the surface does not seem to be a problem, but in fact did not take into account the patient’s vital signs, such a problem in the norms cannot be found”. N11 “When I supervise the projects that used to be a frequent problem. I would check in many ways and from many perspectives, in fact, I would like to see why there are problems all the time, for example, poisonous and anesthetic drugs should be managed with double locks, I asked the nurse with the key during one of my inspections”, “Do you know the password for the safe?” “The nurse said, ‘Yes, I do’, which indirectly reflects the problems in the management of the department, as the person holding the key knows the password and then there is a possibility that a single person can open the safe”. N6 “When a nurse makes a medication error, it seems that she has not checked it, but in fact she is not clear about the key points of checking in different links”. N9 “Patient is impaired in consciousness and the nurse recorded a pain score on a numeric rating scale with a sedation score of -4 and a GCS score of 3’, from which it is clear not only that the pain assessment tool is incorrect, but also that unconsciousness and deep sedation cannot be judged simultaneously. This only requires basic knowledge of the specialist disease and no particularly high level of education, as long as you put your mind to it, the problem is the one who finds the contradiction”.

## Problem Identification Using Multiple Approaches

### Listen

Listening includes listening to introductions, listening to debriefings, listening to feedback, listening to health education, and listening to shift handovers. N1, N13: “When I go to the ward, the nurse-in-charge takes the initiative to introduce the patient’s condition, and I can hear the focus of the nurse-in-charge’s attention from the introduction”. N2, N12, N14: “The debriefings may have inconsistencies, this is the time to note them down and ask questions or check them later”. N3: “Once, I heard the nurse give health education to the patient, and the speed of speech was very fast, using all the technical terms, and the patient had already explained the postoperative content when he was admitted to the hospital, indicating that the health education has no stage focus”. N14 “Once, I heard a nurse change of shift, and the successor was the nurse who had been on the night shift the day before, and the content of the nurse handover was a patient who had been in the hospital for three days, and she started to hand over the patient from the patient’s admission to the hospital, indicating that the nurse or even this department did not have the focus of the shift, in fact, the content that the successor knew did not need to be handed over”.

### Look

By looking, one can have a more intuitive feeling of nursing work, including looking at patients, equipment, operation, environment, and shift handover. N3, N8: “I used to spot check both running and standby equipment when I was making my rounds around the ward, for example, whether the alarm setting of the monitor is reasonable or not, and whether the standby equipment are intact or not”. N7, N11 “I will look at the critical patients, from head to foot, to see if the tube is fixed firmly, whether the position is appropriate”. N4 “I will see if the bed linen is not messy, the environment is messy not only affects the aesthetics, but also affects the patient’s rest”. N3, N7, N11 “When I go to the ward, I will follow the nurse to see if the operation process is standardized and the checking process is correct”.

## Ask

Through asking or questioning, we can understand the patient's mastery and the nurse's knowledge, including asking the patient, asking the nurse, and asking the family members. N5, N7 "Ask the nurse whether she has mastered it or not, and if the nurse has not mastered it, she definitely cannot talk about the implementation". N8 "Some content must be obtained by asking the patient, for example, if you see a 'fall prevention' sign at the patient's bedside, ask the patient about the precautions for falls". N10 "Some nursing measures need to be obtained by asking the family members, for example, if you ask the family members what the patient's dietary requirements are, then you can find out whether the patient's diet is correct".

## Check

Checking includes checking information, checking medical records, and checking equipment. N 6: "There are some contents that cannot be seen in the actual work, and problems can only be found by checking information, because checking information can find out the management ideas of the head nurse. For example, in terms of instrument management, the department has a 'handover book', 'equipment file' and 'inspection register' at the same time, and when I looked through them, I found that the items in the three books were cross, but the cross contents were not filled in consistently, which showed that the department did not have a clear idea of the management of instruments and equipment, and increased the burden on the nurses". N2, N8 "I will definitely check the medical records when I go to the department, and when I check the records, I can find that there are inconsistencies in the observation and disposition of the disease, such as the same point in time recorded in the record of 'the patient's drainage tube is normal'. Patient's drain is normal' and 'Drainage is bloody fluid, notify doctor immediately', which are contradictory".

## Interviews

Interviews include interviews with leaders, interviews with doctors, and interviews with Patient's family. N2 "It is impossible for the head nurse to keep track of every nurse's work status, but the doctor on the shift may know more than the head nurse, and once when I just arrived at the ward in the morning, I heard that there was a big resuscitation of a patient last night, and I asked the doctor on duty, "How did the nurses cooperate during the resuscitation? The doctor said, "when the nurse took the improvised respirator, it accidentally fell on the floor, the nurse wouldn't be able to connect it, and went downstairs to borrow the improvised respirator", and I realized that the connection of the improvised respirator was not mastered by everyone". N14 "Sometimes when I meet the leaders of other departments, I also ask about the shortcomings of nursing, and I can find ideas for my work". N11 "Once I asked the family what they had to say, and the family said, 'I don't know how to put drops in your ears, and I realized that the nurse's work was not really on the ground and it was all dumped-on Patient's family members".

## Track

The correlation of things can be seen through tracking<sup>20</sup>, which includes tracking the route, tracking outcomes of patients, and tracing the answer. N14: "When I was making my rounds around the ward, I found that a patient was planning to be transferred from department A to department B, so I followed him to department B, and I found that many of the instruments were not ready in department B, which means that there is a problem with the transfer process/implementation". N12 "When reviewing the charts in the department, I found that the pressure ulcers were 'brought in from outside the hospital', so I went to the department to see what the current situation was, which could reflect the level of pressure ulcer care in the department". N9 "When I was making my rounds around the ward, I asked the nurses what the patient's point of observation was what, the nurse answered the point of observation was blood glucose, I then asked what the blood glucose was now, the nurse could not answer, it means the nurse did not really observe the blood glucose".



## Problem Identification Pathway Model and Description

Based on the results of the semi-structured interviews, the following pathways were formed, this is shown in Figure 1.

Figure Description:

- ① the blue core is “problem identification”, meaning that the purpose of problem identification;
- ② gray inner circle for the problem identification of the three perspectives and their respective opportunities for application, from easy to difficult in a clockwise direction, respectively, “direct access”, “comparison discovery”, “deep excavation”;
- ③ the white outer circle is the six ways of problem identification and the contents of each way, which are presented in clockwise order of application, respectively, as listen, look, ask, check, interviews, and track;
- ④ the six ways have no correspondence with the three perspectives, and each perspective can be used in any way;

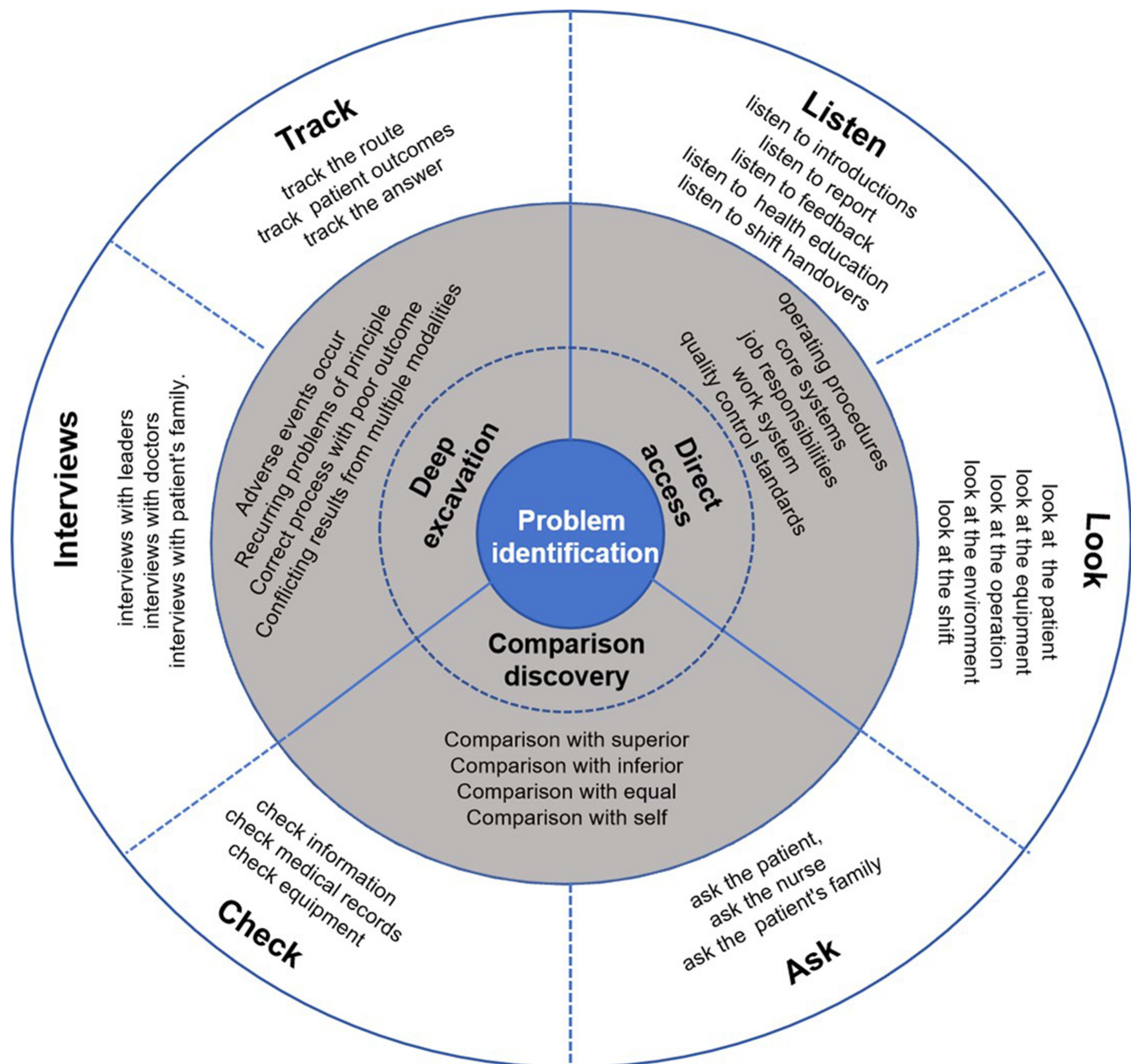


Figure 1 Identification path model and figure description of nursing quality on-site supervision.

## Discussion

### The Scientific Process of Constructing the Pathway for Identifying Problems in Nursing Quality Site Supervision

In this study, semi-structured interviews were used to form the “Pathways for identifying problems in nursing quality on-site supervision”, which is a scientific and reliable research process. First, the selection of interview subjects was maximally differentiated in seven aspects: gender, age, education level, years of management experience, department, position, and title, to maximize the coverage of different situations in the research phenomenon and ensure the representativeness of the study.<sup>21</sup> Second, the design of questions in the interview outline focuses on openness, which not only maximizes the effective information collected in a short period of time,<sup>22</sup> but also collects a wealth of examples and details, and also helps to stimulate interviewees’ thinking, so that they can express their own views and feelings in greater depth. Once again, the design of the interview outline centers on the core issue of “how to identify problems in nursing quality on-site supervision” and is closely integrated with the 5W1H analysis method,<sup>23</sup> so that the complex issue of “how to identify problems” becomes clear. The present study explores in depth and comprehensively how to identify problems in nursing quality supervision from six aspects: first, to understand the way inspectors identify problems, and to open the interview with “How do you identify problems in nursing quality supervision? The second is to explore the problems found, “Do you think the problems you found are superficial or deep-rooted?” and “Can you find the basis for the problems you found in each inspection in the existing work specification?”. The third is to explore the reasons why the inspectors cannot identify the problems, “What do you think are the reasons for not identifying the problems or identifying the superficial problems”, which can help to understand the confusion of the inspectors; The fourth is to explore from the place of inspection, “Do you use the same way of quality inspection in your department as you do in other departments?” and “Do you think there is a relationship between the depth of problem identification in quality inspection and whether or not the quality inspection is conducted in the department?”. (the two questions asked why they could provide insight into the reasons for the poor quality of the inspections); Fifth, from the perspective of the inspectors on how to identify problems, “What do you think are the competencies needed for problem identification?”; Sixth is to explore how to identify problems from the perspective of the subject of the inspection, “Do you think there is any relationship between the depth of problems identified in quality inspection and the criticality of the patient’s illness?”. The interview outline is layered and logical, allowing for the comprehensive collection of all information related to the topic.

### Strong Feasibility of the Path of Problem Identification in Nursing Quality Site Supervision

The “Pathways for identifying problems in nursing quality on-site supervision” formed in this study consists of two parts, the first of which is the three views of problem identification, namely, direct access, comparison discovery, and deep excavation. First, when the work is not in line with the system, standards, processes, responsibilities, routines, and other norms, it is directly recognized as a problem, ie, “directly get”. At present, the above methods are mostly used in the current nursing quality inspection in China to find problems.<sup>2,16</sup> Secondly, when comparing with the best, the worst, the peers, and oneself, it is found to be insufficient, ie, “comparative discovery”. Cheng He et al<sup>10</sup> also found that by discovering other people’s problems, they could cause warning of their own problems in their own departments. Again, when the process is correct but the ending is not good, recurring questions of principle, the occurrence of adverse events, the results obtained by multiple supervision methods contradictory need to further find the problem, ie, “deep digging”. The second part is the six ways to identify the problem, respectively, listen, look, ask, check, interviews, track, each way combined with the quality of care supervision is refined, listen include listening to the report, listening to the introduction, listening to the feedback, listening to health education, listening to the shift; look, including looking at the patient, looking at the equipment, looking at the operation, looking at the environment; ask, including asking the nurses, asking the patient, asking the patient’s family; check, including checking the information, checking the medical records; visit, including visiting the leadership, visiting the doctor, visiting the patient’s family; Track, including tracking the route, tracking outcomes of patients, and tracking the answer. There are also some studies that sporadically mention the use of



listening to nurse handovers,<sup>24</sup> looking at the operations,<sup>11</sup> asking patients,<sup>25</sup> checking medical records,<sup>24</sup> and tracking procedures<sup>26</sup> to find problems. The perspectives and modalities in the path are arranged clockwise, from zero, the three perspectives, and the six modalities are arranged clockwise in accordance with the degree of difficulty and the order of precedence, and the perspectives and modalities are applied in combination. In the application of the path, the three views and the six ways have no correspondence, each perspective can be combined with any modality; either from any perspective into the joint supervision mode, or from any supervision mode into the combination of any perspective, but also a variety of perspectives and modalities can be switched back and forth. For example, three days after the gastrojejunostomy patient's nursing record of the day before the drainage fluid is 200 mL of light bloody fluid; asked the nurse yesterday's drainage, the nurse could not answer; interview the doctor the patient's observation points, the doctor replied, "the most worried about anastomotic fistula, if the patient's body temperature is elevated, the drainage fluid is similar to the intestinal fluid, it may be anastomotic fistula". This case was analyzed by reviewing nursing records and asking questions. This case from checking nursing records and questioning nurses to get inconsistent results, using the form of interviews to dig deeper, can be concluded that there are deficiencies in health care communication, nurse handover, and specialty care ability.

## The Adoption of This Pathway Can Identify Problems in Interdepartmental Quality Supervision

In this study, some of the study participants mentioned that when conducting quality supervision across departments, due to the lack of understanding of the patient's condition and related professional knowledge, they could only supervise against the specifications one by one, which was time-consuming and could not identify the deep-rooted problems. The study found that,<sup>8</sup> due to the mismatch between professional competence and the department of supervision, the problems could not be detected. In fact, the inspector should not use different ways because of different departments but should think about the idea of quality inspection, first, because the domestic-level hospital review<sup>27,28</sup> and so on are experts across hospitals and even across provinces, some experts from the clinical post in the management position after many years of work, but in the quality of the supervision can still be found in the problem, it means that problem identification is not necessarily determined by professional knowledge; second, because the medical knowledge is updated more quickly, with 18 nursing industry norms promulgated in 2023 alone,<sup>29</sup> and the inspector's knowledge is not necessarily updated faster than that of the inspected, indicating that quality inspection does not rely solely on specialized knowledge; third, the Structure-Process-Outcome Nursing Care Quality Model,<sup>13</sup> Shared Governance,<sup>14,15</sup> and Nursing Department Quality Control Officer Post,<sup>2</sup> which are currently being practiced by multiple hospitals both domestically and internationally. All of these models play a large role in quality supervision, and none of these models are entirely dependent on specialized knowledge; fourth, clinical problems are varied,<sup>30-32</sup> and some managers believe that some problems are not regulated, consistent with the study by Golan Amrani,<sup>30</sup> and require comprehensive judgment by the inspector,<sup>10</sup> such as "When a patient with a major gastrectomy returns to the room after surgery, the medical advice was for level 1 care, the nurse set the cardiac monitor to measure blood pressure for Q1h and told the family 'I will come over for rounds in an hour'", which seems to meet the requirements of level 1 care, but does not meet the requirements of closely observing the drainage flow; fifthly, multiple norms may be inconsistent or contradictory for the same patient, and the inspector may have to make a comprehensive judgment, the inspector does not necessarily have to master all the knowledge points, can be found through the discovery of inconsistencies in the excavation can be found problems, such as the prevention of pressure ulcers should not be more than 30 degrees elevated head of the bed, infusion of enteral nutrition to prevent reflux should be taken in a semi-sedentary position, the inspector can be questioned to prevent pressure ulcers to prevent reflux, the head of the bed should be elevated by how much; six is the cross-departmental inspectors can be skillfully sequential application of a variety of ways to listen to the report and then ask targeted questions. Reporting and then targeted questions can be avoided because of the embarrassment of not knowing the specialized knowledge, such as from listening to the report that patients with renal failure and urinary tract infections, you can ask "the patient should drink more water or less water? How much water to drink daily?" Such questions only require basic professional knowledge combined with the idea of supervision can be completed.

## The Combined Use of Multiple Methods Facilitates the Identification of Problems

The joint application of a variety of ways to more comprehensively identify the problem, if only one way may not find the problem or find the problem is not comprehensive. For example, in a quality supervision to listen to the nurse report “20 beds with the most serious condition, last night’s blood pressure 160/110 mmHg, emergency cesarean section, 3:00 am today back to the ward”; go to the patient’s bedside to watch the nurse’s shift handover “handover of vital signs, contraction and magnesium sulfate infusion path, the uterine fundus of the position”, The above two ways may not find problems; then ask the nurse the patient’s observation points, the nurse replied, “blood pressure, dizziness, whether the knee tendon reflex exists, the position of the uterine fundus”, at this time, the inspector can find that the nurse did not ask about dizziness during the shift handover nor check whether the knee tendon reflex exists; he can then check the nursing record: “blood pressure 130/85mmHg, uterine fundus is located one finger below the umbilicus”, and he can find that dizziness and knee tendon reflexes have not been recorded; he can also interview the family members: “What are the tasks of the nurses every time when they come into the ward? Interviewing the family, the family replied, “Changing fluids and watching the monitor”, indicating that the nurse did not make rounds of the observation points every time she entered the ward; and then asked the nurse, “What should the maternal blood pressure be maintained at? Is the current position of the uterine fundus normal?” The nurse’s inability to answer indicates that the nurse is not aware of the normal range of the observation points, and is unable to detect abnormalities, and is unlikely to notify the doctor in time to deal with them when they occur. The above case suggests that nursing managers should pay attention to the following points in quality supervision: First, a single way of supervision may not be able to find problems, especially by listening to the report is not easy to find problems, because the inspector does not necessarily have the right answer; second, the results of a variety of ways of supervision will be easy to find the problem of the results will be compared, found contradictions, inconsistencies can be recorded as a problem; third, a variety of ways is not randomly joint, but Ring interlocking, according to the results obtained by the former way to decide the use of the next way, such as seeing the nurse handover to ask the nurse to observe the main points, when the nurse replied to observe the main points, look at the nursing records on the observation of the main points of the record; Fourth, When multiple people jointly supervise, it should be supervised by dividing the project and not in different ways, that is, one person cannot listen to the report, one person to see the patient, and one person to ask the nurse for a supervision project, because each inspector’s thinking is not the same, sub-project supervision is difficult to do interlocking, it is also difficult to find problems through the comparison of their respective results; Fifth, the contradictions of the results can be obtained in a variety of ways as an opportunity to dig deeper to facilitate the discovery of loopholes and the formation of norms, such as through the above case not only found the problem but also can be derived from the relevant norms: “Points of Observation, Patient Patrol, bedside handover, and the content of the paperwork record should be four unified”.

## Conclusion

This study used descriptive qualitative research to construct a pathway for problem identification in nursing quality sites, including three views of problem identification and six ways (Abbreviated as “Problem Identification 3V6W Path”), and the six ways were used throughout each view, which can provide ideas and directions for nursing managers to conduct clinical supervision. Due to space limitations, this study did not detail the process of using each approach, which will be presented in the next article.

## Data Sharing Statement

The data that support the findings of this study are available from the corresponding author upon reasonable request.

## Ethical Approval

This study was approved by the Institutional Review Board of Shanxi Bethune Hospital of China (YXLL-2023–291) and conducted in accordance with the Declaration of Helsinki. All methods were performed in accordance with the recommended guidelines and regulations. The purpose and significance of the study were explained to the participants, and only those who agreed to participate were interviewed after obtaining written informed consent.

## Author Contributions

All authors made a significant contribution to the work reported, whether that is in the conception, study design, execution, acquisition of data, analysis and interpretation, or in all these areas; took part in drafting, revising, or critically reviewing the article; gave final approval of the version to be published; have agreed on the journal to which the article has been submitted; and agree to be accountable for all aspects of the work.

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## References

1. Duan X, Shi Y. Current status of quality evaluation of nursing care through director review and reflection from the nursing quality control centers. *Int J Clin Exp Med*. 2014;7(10):3737–3745.
2. Haihong Li LM, Zhang J, Liu P, Xu W. Effect evaluation of establishment of part-time quality control nurses in nursing department. *Chin Nurs Res*. 2021;35(06):1072–1075.
3. LM YL, Zhang J. A qualitative study of the work experience of part-time quality control nurses in wards. *J Qilu Nurs*. 2023;29(16):43–46.
4. Price M, Fitzgerald L, Kinsman L. Quality improvement: the divergent views of managers and clinicians. *J Nurs Manage*. 2007;15(1):43–50. doi:10.1111/j.1365-2934.2006.00664.x
5. Notice of the National Health Commission on Printing and Distributing the “National Nursing Development Plan (2021-2025)”. Available from: <http://www.nhc.gov.cn/zyzygj/s7653pd/202205/441f75ad347b4ed68a7d2f2972f78e67.shtml>. Accessed January 16, 2024.
6. He H. Adhere to the problem-oriented methodological significance. *Governance*. 2023;19:2–7. doi:10.16619/j.cnki.cn10-1264/d.2023.19.001
7. Ye Liu YJ, Kong Y, He Q, Diao Y. Shuyun Tang research on quota management for nursing quality defects. *J Nurs Sci*. 2018;33(18):8–10.
8. Meihua Hu TW, Qiu C, Qi Y, Zhou J, Li X. Nurses’ attitudes and suggestions on nursing quality supervision: a qualitative study. *Med Sci Nurs*. 2021;22(02):179–183.
9. Qiong Guo MW, Li W, Zhou J, Wu Y. Application of the pattern of management by problem in nursing quality management. *J Nurs Adm*. 2010;10(03):221–222.
10. He Cheng GG. Based on the real-world experience of quality control nurses on quality control work under total quality management. *Chin Gen Pract Nurs*. 2021;19(18):2550–2554.
11. Weaver SH, Lindgren TG, Cadmus E, Flynn L, Thomas-Hawkins C. Report from the night shift: how administrative supervisors achieve nurse and patient safety. *Nurs Adm Q*. 2017;41(4):328–336. doi:10.1097/naq.0000000000000252
12. Agnew C, Flin R, Reid J. Nurse leadership and patient safety. *BMJ*. 2012;345:e4589. doi:10.1136/bmj.e4589
13. Moore L, Lavoie A, Bourgeois G, Lapointe J. Donabedian’s structure-process-outcome quality of care model: validation in an integrated trauma system. *J Trauma Acute Care Surg*. 2015;78(6):1168–1175. doi:10.1097/ta.0000000000000663
14. Latta LC, Davis-Kirsch S. Developing a robust professional practice model using a shared governance approach. *J Pediatr Nurs*. 2011;26(6):580–585. doi:10.1016/j.pedn.2011.06.010
15. Blake N, Oriza NS, Winter V, Imperial-Perez F. Shared governance for a healthy work environment in a pediatric cardiothoracic intensive care unit. *AACN Adv Critical Care*. 2016;27(2):152–157. doi:10.4037/aacnacc2016968
16. Zhang X, Zan H, Du R, Chen J. Construction and application of feedback model for on-site inspection of nursing quality. *Chin Nurs Manage*. 2024;24(5):746–750.
17. Popper K. *The Logic of Scientific Discovery*. London: Routledge; 2005:3.
18. Harsh S. Purposeful sampling in qualitative research synthesis. *Qualitative Research Journal*. 2011;11(2):63–75. doi:10.3316/QRJ1102063
19. Braun V, Clarke V. Using thematic analysis in psychology. *Qual Res Psychol*. 2006;3(2):77–101. doi:10.1191/1478088706qp063oa
20. Hongjun Deng WN, Tang Y, He L. Fundamental principal of tracer methodology in hospital accreditation. *Hospital Manage Forum*. 2012;29(10):42–43.
21. Bengough T, Dawson S, Cheng HL, et al. Factors that influence women’s engagement with breastfeeding support: a qualitative evidence synthesis. *Mater Child Nutrition*. 2022;18(4):e13405. doi:10.1111/mcn.13405
22. Kallio H, Pietilä AM, Johnson M, Kangasniemi M. Systematic methodological review: developing a framework for a qualitative semi-structured interview guide. *J Adv Nurs*. 2016;72(12):2954–2965. doi:10.1111/jan.13031
23. Nursing Scope of Practice. Available from: <https://www.nursingworld.org/practice-policy/scope-of-practice/>. Accessed March 22, 2024.
24. Zou XJ, Zhang YP. Rates of nursing errors and handoffs-related errors in a medical unit following implementation of a standardized nursing handoff form. *J Nurs Care Quality*. 2016;31(1):61–67. doi:10.1097/ncq.0000000000000133
25. LH XX, Yin S, Yang T, Wang H, Wang Y. Application of multivariate integrated supervision mode in clinical nursing quality management. *J Nurs Sci*. 2019;34(8):69–71.
26. Durán-Arenas L, Muñoz-Hernández O, Hernández-Ramírez Ldel C, et al. The use of the tracer methodology to assess the quality of care for patients enrolled in medical insurance for a new generation. *Salud publica de Mexico*. 2012;54(Suppl 1):S50–6. doi:10.1590/s0036-36342012000700007
27. Measures for the evaluation of medical institutions. Available from: <http://www.nhc.gov.cn/fzs/s3576/201808/0415d028c18a46c4a316d8339edcdf44.shtml>. Accessed December 25, 2023.

28. National Health Commission of the People's Republic of China. Notice of the Ministry of Health on the issuance of the "Interim Measures for Hospital Evaluation". *Gazette of the National Health Commission of the People's Republic of China*. 2011;10:21–25.
29. Group standard management platform. Available from: <http://hlth.kxj.org.cn/index/tuanti/index.html?page=2>. Accessed December 25, 2023.
30. Amrani G, Gefen A. Which endotracheal tube location minimises the device-related pressure ulcer risk: the centre or a corner of the mouth? *Int Wound J*. 2020;17(2):268–276. doi:10.1111/iwj.13267
31. Jové Ponseti E, Villarrasa Millán A, Ortiz Chinchilla D. Análisis de las complicaciones del decúbito prono en el síndrome de distrés respiratorio agudo: estándar de calidad, incidencia y factores relacionados. [Analysis of complications of prone position in acute respiratory distress syndrome: quality standard, incidence and related factors]. *Enfermería intensiva*. 2017;28(3):125–134. doi:10.1016/j.enfi.2016.12.003
32. McClave SA, Taylor BE, Martindale RG, et al. Guidelines for the provision and assessment of nutrition support therapy in the adult critically ill patient: Society of Critical Care Medicine (SCCM) and American Society for Parenteral and Enteral Nutrition (A.S.P.E.N.). *J Parent Enteral Nutrition*. 2016;40(2):159–211. doi:10.1177/0148607115621863

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