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Investigation and Analysis of the Current Status of Nursing Documentation Quality for Critically Ill Patients in Beijing TCM Hospitals (Post-Print)

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Abstract

Objective: To investigate and analyze the current quality status of nursing documentation for critically ill patients in traditional Chinese medicine (TCM) hospitals in Beijing, and to provide a reference basis for quality management of nursing documentation in TCM hospitals. Methods: Cluster sampling was employed to select 38 tertiary and secondary TCM and integrative Chinese-Western medicine hospitals in Beijing as survey subjects. Archived medical records from January 1 to October 31, 2020 were reviewed, with 5 nursing records for critically ill patients sampled from each hospital; records with less than 3 days of documentation were excluded, yielding a total of 175 records for quality investigation and analysis of quality defects. Results: The average quality score of the 175 nursing records was 82.12 points, with 917 quality defects identified in total. Among these, the ADL scale accounted for 76 defects (8.29%), temperature charts for 106 defects (11.56%), and nursing records exhibited the highest number of defects with 720 instances (78.52%). The main defects in nursing records were concentrated in six aspects: errors in documentation timeliness, lack of specialized nursing content, non-standard documentation of TCM techniques, untidy pages, non-standard signatures, and other issues. Conclusion: The overall quality of nursing documentation for critically ill patients in Beijing TCM hospitals has improved; however, the frequency of quality defects remains high and the types of defects are complex. Improvements should be implemented through developing detailed standards, promoting electronic tabular medical records, and strengthening comprehensive training for nurses. Management departments should attach great importance to nursing documentation quality, analyze defect causes, and adopt effective measures.

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Full Text

Investigation and Analysis of the Quality Status of Nursing Documents for Critical Patients in Traditional Chinese Medicine Hospitals in Beijing

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Abstract

Objective: To investigate and analyze the current quality status of nursing documents for critical patients in Traditional Chinese Medicine (TCM) hospitals in Beijing, providing a reference basis for quality management of nursing documentation in TCM hospitals.

Methods: A cluster sampling method was employed to select tertiary and secondary-level TCM and integrated Chinese-Western medicine hospitals in Beijing as survey subjects. Archived medical records from [DATE] were selected, with each hospital extracting [NUMBER] critical patient nursing records. Records with less than [NUMBER] days of documentation were excluded, yielding a total of [NUMBER] records for quality investigation and defect analysis.

Results: The average quality score for the [NUMBER] nursing records was [SCORE] points. A total of [NUMBER] quality defects were identified ([PERCENTAGE]%). Nursing record sheets exhibited the most defects ([NUMBER] occurrences), with the ADL Assessment Scale accounting for [PERCENTAGE]% of defects. Primary nursing record deficiencies concentrated in six areas: incorrect recording time limits, lack of specialized nursing connotation, nonstandard TCM technique documentation, untidy pages, nonstandard signatures, and other issues. Temperature charts accounted for [PERCENTAGE]% of defects.

Conclusion: The overall quality of nursing documents for critical patients in Beijing TCM hospitals has improved, though quality defects remain frequent and complex. Improvements should focus on developing detailed standards, implementing tabular electronic medical records, and strengthening comprehensive nurse training. Management departments should attach great importance to nursing documentation quality, analyze defect causes, and implement effective measures.

Keywords: critical patients; nursing documents; quality defects; causes investigation

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Nursing documents comprise the total collection of text, symbols, and graphics recorded by nursing staff during nursing activities. The *Medical Accident Handling Regulations* promulgated in [YEAR] clearly stipulate that nursing records

constitute an essential component of medical records and represent content that patients may photocopy or duplicate, thus carrying legal validity. With deepening healthcare reform, public self-protection and legal rights awareness have continuously strengthened, leading to a year-by-year increase in medical disputes. Critical patients present complex conditions with rapid changes, making medical and nursing work particularly specialized and high-risk. Nursing document quality directly affects clinical staff' s judgment of patient conditions and may even trigger patient dissatisfaction due to a single incorrect character or inappropriate wording in medical documents, ultimately leading to disputes. In recent years, the proportion of critical patients admitted to TCM hospitals has increased annually, with research reporting that disease composition and mortality rates in TCM hospital ICUs are similar to those in general hospitals. Strengthening quality control and management of critical patient nursing documentation among TCM hospital nursing staff is therefore crucial. To this end, the Beijing TCM Nursing Quality Control Center conducted a retrospective quality inspection of critical patient nursing documents in [NUMBER] TCM and integrated Chinese-Western medicine hospitals in Beijing during [YEAR], aiming to understand current quality management status, identify existing problems, analyze causes, and further standardize nursing documentation to prevent medical disputes.

1. Materials and Methods

1.1. Materials

A cluster sampling method was used to select [NUMBER] tertiary and secondary-level TCM and integrated Chinese-Western medicine hospitals in Beijing that admit critical patients, including [NUMBER] tertiary hospitals and [NUMBER] secondary hospitals. Archived medical records from January [YEAR] to October [YEAR] were selected. Each hospital extracted [NUMBER] critical patient nursing records, excluding records with fewer than [NUMBER] days of documentation, yielding a total of [NUMBER] records for quality investigation.

1.2. Quality Inspection Standards

The *Critical Patient Nursing Record Quality Inspection Form for TCM Diseases (2020 Edition)* was used, with each record assigned a total possible score of 100 points. The form included [NUMBER] first-level indicators: overall record indicators (10 points), front page indicators (10 points), temperature chart indicators (20 points), and critical patient nursing record sheet indicators (60 points). Second-level indicators numbered [NUMBER]: nursing level, documentation days, ADL assessment, temperature chart recording, critical patient nursing record writing standards, recording time limits, specialized nursing, TCM characteristics, and signature standards. Third-level indicators totaled [NUMBER], with each indicator classified as A, B, or C level based on problem severity and assigned corresponding point values. Before implementation, [NUMBER]

ICU head nurses and nursing experts measured the form' s reliability and validity. The survey included [NUMBER] questions covering form design rationality, content comprehensiveness, indicator difficulty, and inspector feasibility, using a single-item 100-point scale where higher scores indicated greater satisfaction. A total of [NUMBER] questionnaires were distributed with a [PERCENTAGE]% recovery rate. Cronbach's α coefficient was [VALUE], and content validity index (CVI) was [VALUE], demonstrating good reliability and validity.

1.3. Quality Inspection Method

The Beijing TCM Nursing Quality Control Center selected [NUMBER] nursing experts to form a quality inspection team. Before inspection, team members received training on the *Critical Patient Nursing Record Quality Inspection Form for TCM Diseases (2020 Edition)* content and evaluation methods to unify understanding and reach consensus. Each hospital's nursing records were inspected by different quality inspectors, with results recorded item-by-item in the inspection form. The Beijing TCM Nursing Quality Control Center assigned dedicated personnel to collect and verify the forms and input data into the "Beijing TCM Medical Record Quality Control Joint Inspection System." A total of [NUMBER] inspection forms were distributed with a [PERCENTAGE]% effective recovery rate.

1.4. Statistical Methods

All data obtained in this study were entered and statistically analyzed using [SOFTWARE] statistical software. Defect distribution was expressed as percentages (%). For analysis of problem-related factors, occurrence frequency was expressed as ($\bar{x}\pm s$) when data met normal distribution and homogeneity of variance assumptions. One-way ANOVA was used for testing, with a significance level of α=0.05.

2. Results

2.1. Basic Information of Critical Patient Nursing Records in Beijing TCM Hospitals

A total of [NUMBER] critical patient nursing records were actually inspected across [NUMBER] hospitals, including [NUMBER] cases of pulmonary infection, [NUMBER] cases of heart failure, [NUMBER] cases of chronic obstructive pulmonary disease, [NUMBER] cases of chronic renal failure, [NUMBER] cases of acute myocardial infarction, [NUMBER] cases of malignant tumors, and [NUMBER] cases of cerebral infarction. There were [NUMBER] records for special-level nursing care and [NUMBER] records for first-level nursing care.

2.2. Quality Scores of Critical Patient Nursing Documents in Beijing TCM Hospitals at Various Levels

The average quality score for critical patient nursing documents across all Beijing TCM hospitals was [SCORE] points, with tertiary hospitals averaging [SCORE] points and secondary hospitals averaging [SCORE] points. The excellence rate ([SCORE]$ $90 points) was [PERCENTAGE]% for tertiary hospitals and [PERCENTAGE]% for secondary hospitals .

2.3. Defects in Critical Patient Nursing Documents in Beijing TCM Hospitals

A total of [NUMBER] quality defects were identified in [NUMBER] critical patient nursing documents across Beijing TCM hospitals. Nursing record sheets exhibited the most defects ([NUMBER] occurrences, [PERCENTAGE]%), followed by temperature charts ([NUMBER] occurrences, [PERCENTAGE]%) and ADL assessment scales ([NUMBER] occurrences, [PERCENTAGE]%) .

2.4. Defects in Nursing Record Sheets

Nursing record sheet defects were most concentrated in recording time limit errors, lack of specialized nursing connotation, nonstandard TCM technique documentation, untidy pages, and nonstandard signatures, accounting for [PERCENTAGE]% of total defects. Specific defect distribution is shown in .

3. Discussion

3.1. Overall Quality of Critical Patient Nursing Documentation

The quality of nursing documents not only reflects nursing staff' s theoretical and professional competence but also demonstrates an organization' s overall management and nursing quality. This study found that the average quality score for critical patient nursing documents across Beijing TCM hospitals was [SCORE] points, with [NUMBER] records scoring above 90 points and an excellence rate of [PERCENTAGE]%. This indicates that overall quality has improved, primarily due to the Beijing Municipal Administration of TCM' s promulgation of the *Basic Requirements for TCM Nursing Documentation in Beijing (2020 Trial Version)* in 2020, which clarified requirements, format standards, content, and management guidelines for various nursing documents in TCM hospitals. This publication provided nurses with clear standards and references for documentation. Additionally, under the guidance of the National Health Commission' s notice on *Promoting Tabular Nursing Documents*, all TCM hospitals have comprehensively implemented tabular electronic medical records, which has promoted quality improvement.

Among the [NUMBER] surveyed hospitals, only [NUMBER] still used manual records, with [PERCENTAGE]% having adopted tabular electronic medical

records. Tabular electronic medical record application has unified and standardized documentation formats and content, making nursing records more timely, comprehensive, and convenient while saving nurses substantial time. Simultaneously, nursing quality control departments can inspect, evaluate, and track ward nursing document quality more conveniently and scientifically, significantly improving documentation quality.

3.2. Analysis of Nursing Documentation Defects

3.2.1. ADL Assessment Scale Among the [NUMBER] critical patient nursing documents, the completion rate for Activities of Daily Living (ADL) assessment scores on front pages was [PERCENTAGE]%. Analysis of ADL documentation defects revealed that problems concentrated in two areas: untimely recording ([NUMBER] occurrences) and inaccurate recording ([NUMBER] occurrences). The survey found that [PERCENTAGE]% of patients did not have supporting materials for ADL reassessment when conditions changed (e.g., nursing level changes, transfers, surgery), and [PERCENTAGE]% of deceased patients still had ADL scores completed on front pages. Some institutions had poorly designed ADL forms that only included admission and discharge scores without capacity to add other situation scores, while others lacked a death option for final scores, leading to these defects. Additionally, some hospitals had not established clear quality requirements for ADL score documentation, and some nurses lacked awareness of work traceability.

3.2.2. Temperature Charts Temperature charts exhibited [NUMBER] defects, including missing items, alterations, and drawing errors. Missing items primarily involved failure to record intake/output volumes on critical patient temperature charts or failure to mark intake/output statistics time on admission day. Another frequent problem was failure to record blood pressure or recording only once daily, mainly related to vague nursing documentation quality management requirements in some hospitals. These findings suggest that TCM nursing quality control centers and management departments should further refine documentation standards with clear requirements. Alteration and drawing errors occurred primarily in hospitals not using electronic records. Manual drawing required adding temperature forms to each record individually, repeatedly filling header content, and making errors such as non-straight lines, wrong connections, and inconsistent thickness when not careful. Some nurses lacking responsibility and professional ethics would erase and modify errors, resulting in illegible handwriting and untidy forms.

3.2.3. Nursing Record Sheets Nursing record sheets exhibited the most defects ([NUMBER] occurrences). As shown in , primary problems included recording time limit errors, lack of specialized nursing connotation, nonstandard TCM technique documentation, untidy pages, and nonstandard signatures. Among surveyed critical patient nursing documents, [PERCENTAGE]% were special-level nursing care, and [PERCENTAGE]% had documentation periods

exceeding [NUMBER] days, with both proportions exceeding total record numbers, indicating high patient acuity. This undoubtedly increases clinical nursing difficulty, particularly substantially increasing nursing documentation workload. Some nurses lacked quality awareness, observed patient condition changes carelessly and inattentively, and failed to evaluate and record according to actual conditions, resulting in content that did not match facts or copying records.

The survey revealed that [PERCENTAGE]% of critical patients received TCM nursing techniques, a relatively widespread application primarily addressing fever, constipation, insomnia, nausea/vomiting, and oral care. Documentation exhibited defects including nonstandard TCM technique implementation records that did not match physician orders, lack of effectiveness evaluation, and failure to reflect syndrome differentiation principles. China' s TCM nursing workforce predominantly consists of nurses trained in Western medicine hospitals. Even nurses trained in TCM hospitals often have overly Westernized curricula without solid TCM foundations, resulting in insufficient ability in syndrome differentiation-based nursing and TCM record writing. Most nurses cannot accurately implement, evaluate, and document TCM nursing techniques by combining patient syndrome characteristics and applying eight-principle syndrome differentiation.

Defects such as untidy pages and nonstandard signatures primarily relate to incomplete coverage of electronic tabular nursing records, insufficient supervision of nursing record quality by senior nurses, vague standards and requirements for nursing documentation, and lack of corresponding training.

3.3. Recommendations

In summary, to address defects in critical patient nursing documentation quality in Beijing TCM hospitals, we recommend: (1) further refining TCM nursing documentation standards with unified interpretation training; (2) continuing to comprehensively implement electronic tabular nursing records; and (3) strengthening training in legal awareness, specialized competence, and TCM knowledge for clinical nurses. As superior quality management departments, we should attach great importance to nursing documentation quality, comprehensively understand current quality status, analyze defect causes, and provide evidence for intervention measures.

Conflict of Interest Statement

All authors declare no conflict of interest.

References

[1] Wang Qingzhen, Han Lijun, Dian Huijuan. Analysis and countermeasures for the connotation quality of electronic nursing documents in inpatient medical records[J]. Journal of Nursing of Chinese People' s Liberation Army, 2014.

[2] Medical Administration Department of Ministry of Health. Compilation of Medical Accident Handling Regulations and Supporting Documents[Z].

[3] Wang Qiao, An Zhe, Bian Zheng, et al. Investigation and analysis of quality status of nursing records in ICU[J]. China Medicine and Pharmacy, 2014.

[4] Zhao Shan, Huang Hai, Wu Min. Analysis of influencing factors in medical disputes in a top tertiary hospital[J]. China Medical Herald, 2014.

[5] Tan Qiurong. Investigation and analysis of quality defects in nursing documents[J]. Nursing Practice and Research, 2014.

[6] Sun Xuesong, Zheng Xichuan, Wang Xiaoli. Design and application of nursing risk early warning model based on electronic medical records[J]. China Digital Medicine, 2014.

[7] Ru Jiangli, Xiang Chunyan, Li Jing, et al. Design and application of critical care electronic nursing records in TCM hospitals[J]. Journal of Emergency in Traditional Chinese Medicine, 2014.

[8] Xie Ping, Zheng Jun, Guo Xiaojuan, et al. Application and effect evaluation of closed-loop quality control system for electronic nursing documents[J]. Chinese Journal of Nursing, 2014.

[9] Li Huiqing, Zhao Desheng, Tang Shunluan, et al. Comparative study on advantages between electronic and manual nursing records[J]. International Medicine and Health Guidance News, 2014.

[10] Lin Daiqiong. Investigation on quality management status of nursing document writing in hospitals[J]. Chinese Health Service Management, 2014.

[11] Ji Wenni, Huang Qiuyue, Lu Suying, et al. Analysis and countermeasures for quality defects in electronic nursing document processes in a Zhongshan hospital[J]. China Medicine and Pharmacy, 2014.

[12] Zhao Junying, Huang Shaolan, Fu Haiying, et al. Research on construction of TCM nursing technique standards and promotion models[J]. Nursing Research, 2014.

[13] Huang Jieyi, Xie Dan, Li Weirong. Statistical analysis of ICU inpatient cases in Qingyuan TCM Hospital in 2013[J]. China Medicine and Pharmacy, 2014.

[14] Huang Shaoji, Chen Xiufan. Analysis and protective countermeasures for nursing document defects in 100 death cases[J]. Nursing Practice and Research, 2014.

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