

Health Information Technology Department
Mashhad University of Medical Sciences



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Medical Sciences

Improving Nursing Care Documentation in Emergency Department: A Participatory Action Research Study in Iran

Manzari, Zahra Sadat

Mashhad University of Medical Sciences, Mashhad, Iran

Author ID: 54950099700 [i](#)

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Manzari, Zahrasadat

Manzari, Zahra

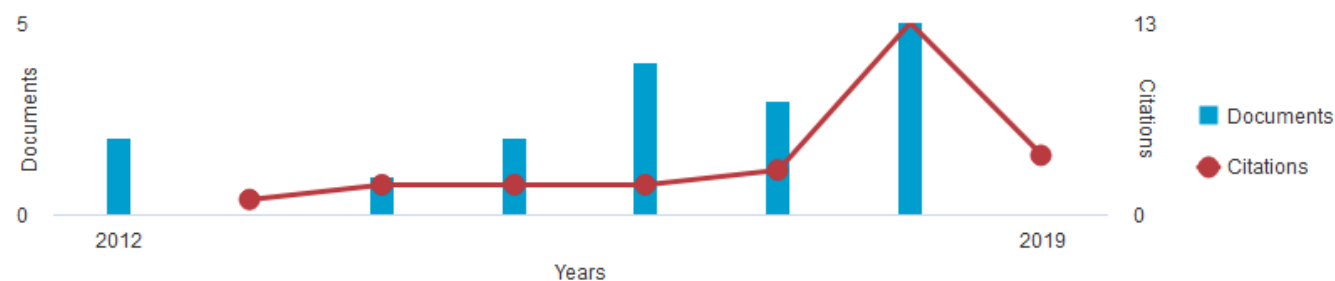
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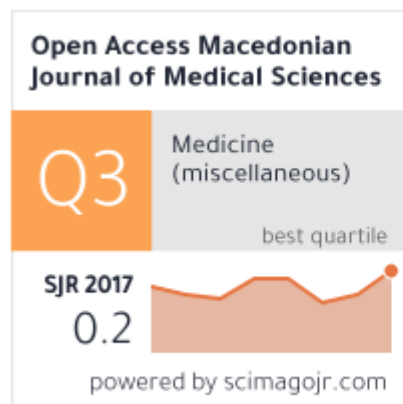
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Open Access Macedonian Journal of Medical Sciences

| | | |
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Introduction



major factor

transparency

nursing care

satisfaction

evaluate patient care

communication collaboration

decision making

professional accountability

Introduction



unsatisfactory



Material and Methods

233-bed

emergency department
24 active beds

trauma centre

470

89

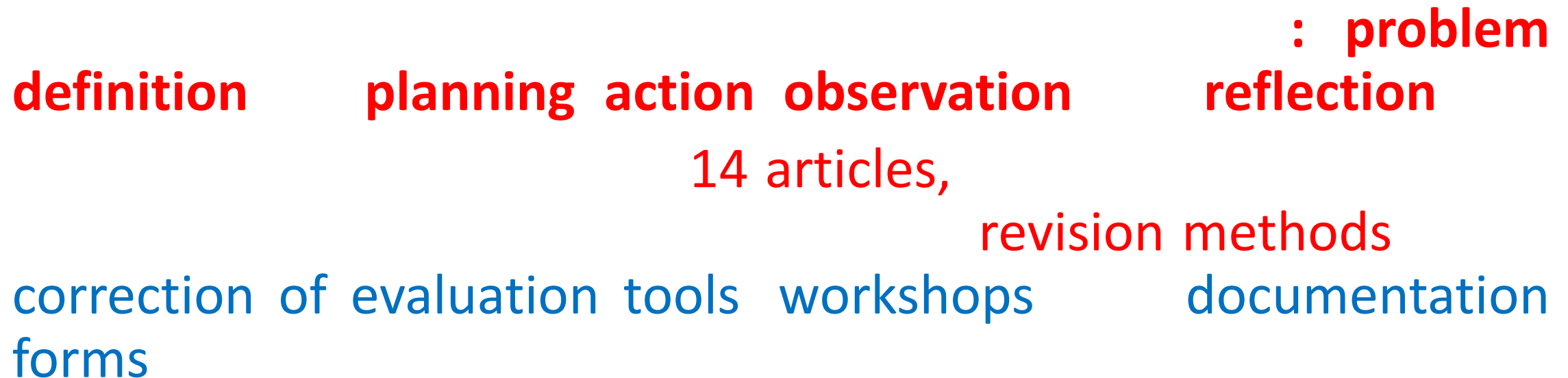
general physicians, 32 nurses, 12 assistants, 9
3 emergency physicians



Material and Methods

participatory action research

Kemmis's model





Material and Methods

concurrent validation

(Cronbach's alpha=82%).



Material and Methods

validity of the instrument

comments

0 (no documentation)

1 (one required items)

2

3 (full compliance)



Material and Methods

conventional content analysis

22 semi-structured interviews

Material and Methods

Table 1: Classification of examined indices based on the minimum score obtained by 200 subjects

| No. | Index of concern in records | White | Incomplete | Illegible | Complete |
|-----|---|-------|------------|-----------|----------|
| 1 | The full demographic information of patients (name, age, place of birth, date of birth) appears on the file cover, and all information is completely documented. | 0 | 100 | 12 | 99 |
| 2 | File documents are arranged by the order issued by the Medical Documents Center (admission letter, physician's prescriptions, nursing reports, para-clinical tests, content letter, history, and patient training). | 0 | 186 | 0 | 14 |
| 3 | All documents on para-clinical measures are attached and checked according to the date in the relevant file. | 1 | 175 | 1 | 23 |
| 4 | A physician's instructions along with the number of items in letters and the time and date come with a signature. | 0 | 183 | 8 | 9 |
| 5 | A physician's instructions are terminated with a straight underline so that nothing more can be added. | 0 | 180 | 0 | 20 |
| 6 | Vital signs are accurately recorded in specified fields on a chart sheet in red (temperature), blue (pulse), black (blood pressure), and green (breath). | 3 | 161 | 2 | 34 |
| 7 | The information requested is completely and accurately documented in tables below the vital signs chart. | 4 | 190 | 0 | 6 |
| 8 | The intervals for checking vital signs registered on a patient's chart sheet should be consistent with the instructions written in the corresponding file. | 3 | 182 | 0 | 12 |
| 9 | Nursing reports are legible with mistakes. | 3 | 81 | 65 | 51 |
| 10 | Nursing reports are written in succession with no blank spaces among them. | 0 | 105 | 1 | 94 |
| 11 | Nursing reports are signed and contain the name of the nurse in charge, his/her position, and documentation time. | 0 | 13 | 15 | 172 |
| 12 | If there is a mistake in the nursing report, it must be marked and then signed and stamped. | 0 | 20 | 0 | 171 |

Material and Methods

| | | | | | |
|----|---|-----|-----|----|-----|
| 13 | The exact time of specific measures (tests, radiography, physician's visits) is indicated. | 124 | 40 | 33 | 3 |
| 14 | Ambiguous words, such as "good," "normal," and "medium," are not used in the report. | 0 | 42 | 39 | 119 |
| 15 | In the nursing report, the cause, type of disease, and type of referral are mentioned. | 0 | 106 | 0 | 94 |
| 16 | Only the abbreviations approved by the institute are used in medical records. | 0 | 131 | 28 | 41 |
| 17 | There are enough explanations about the general status of a patient (vital signs, level of consciousness, objective and subjective symptoms). | 197 | 3 | 0 | 0 |
| 18 | Sufficient explanations are provided about a patient's excretion conditions (number of times, colour, consistency of symptoms and patient's complaints). | 198 | 2 | - | - |
| 19 | The report is closing with a straight underline so that nothing more can be added. | 186 | 4 | 0 | 0 |
| 20 | The nutritional status of a patient is denoted with measurable benchmarks (amount of food, total food intake per day). | 198 | 2 | 0 | 0 |
| 21 | Notes on invasive treatments (urinary catheterisation, nasogastric tube, etc.) are provided, along with usage time, the instructor, patient response to the treatment, and follow-up points in the subsequent shift. | 9 | 141 | 37 | 13 |
| 22 | A patient's training sheet is completed and signed according to the measures taken. | 193 | 6 | 0 | 1 |
| 23 | Nursing procedures, including nursing diagnosis, nursing interventions (a type of intervention, patient's behaviour, intervention time), and evaluation of actions (patient's response), are recorded in documentation reports. | 93 | 85 | 14 | 8 |
| 24 | Exact drug prescriptions are documented by mentioning the drug, consumption method, and timing of medication. A nurse's signature should appear in the document. | 0 | 75 | 14 | 111 |

Material and Methods

| | | | | | |
|----|--|-----|-----|----|----|
| ➔ | Nursing diagnosis is written, and the nursing process is specified at the end of each assessment form. | 128 | 52 | 14 | 6 |
| 26 | The orders in a file accord with a physician's instructions. | 0 | 119 | 10 | 71 |
| 27 | Patient's profile, medical and nursing diagnosis are stored in the file. | 0 | 102 | 4 | 94 |
| 28 | Telephone orders are signed by two people, and the exact time is included. | 0 | 137 | 3 | 60 |
| 29 | A patient's electrocardiography contains the patient's profile and date and is attached to a special sheet. | 0 | 122 | 0 | 60 |
| 30 | Consent forms include explanations about the risks and benefits of treatment or surgical intervention, other treatment alternatives, and measures. It provides some evidence of the fact that a patient or his lawyer are fully satisfied with the surgery or treatment. | 8 | 157 | 13 | 22 |

Results

Table 2: Main themes and sub-themes extracted from interviews

| Main Themes | Sub Themes |
|-----------------------------------|--|
| Documentation competency | The necessity of effective training |
| | Need to train documentation standards |
| | Need to increase skills in reporting |
| Job burnout | Job stress |
| | Work pressure |
| Perceived control | Planned control |
| | Effective control |
| Intra-organizational coordination | Improvement of health information system |
| | Documentation time management |
| Legal barrier to documentation | Escaping from the law |
| | Legal liabilities |



Results

interventions

1. virtual training
2. staff Management Based On Performance
Work Measurement three different shifts
3. necessary modifications
4. continuing codified
education



Results

1- first phase

Virtual training

a written test

80%

87.23%

100%



Results

second phase:

six nurses

two nurses

two nurses

chronometer

average admission time

Results

Table 3: the Average activity of nurses in three different shifts (in minutes)

| | |
|---------------------------------|-----|
| Direct care | 121 |
| Indirect care | 178 |
| Miscellaneous (rest, tea, etc.) | 58 |
| Documentation in the system | 23 |
| Documentation in the case | 31 |
| Total | 420 |



- 3 HIS



4A two-day workshop

standard documentation skills



Results

57.2%

70%



Results

continuous documentation
monitoring in three working shifts
Telegram

A two-day specialized workshop

Results



a new
version of the form was developed



Results

documentation quality score



specific achievements of the research
improvements to cooperation coordination

Discussion



the patient education form

effectiveness of the training

low

Discussion



qualitative stage

work observation sessions

time

spent on completing electronic documentation

longer than the regional standard

4

minutes

and a number of nursing care packages were developed and

Discussion



lack of control and supervision by the authorities

one

selected nurse to control and monitor

staff training and awareness development effectively

improved the quality of documentation provided by the

Discussion



planned monitoring

influenced

staff

behaviors



• نقاط قوت؟

• نقاط ضعف؟



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