



Health Information Technology Department  
Mashhad University of Medical Sciences



Mashhad University of  
Medical Sciences

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



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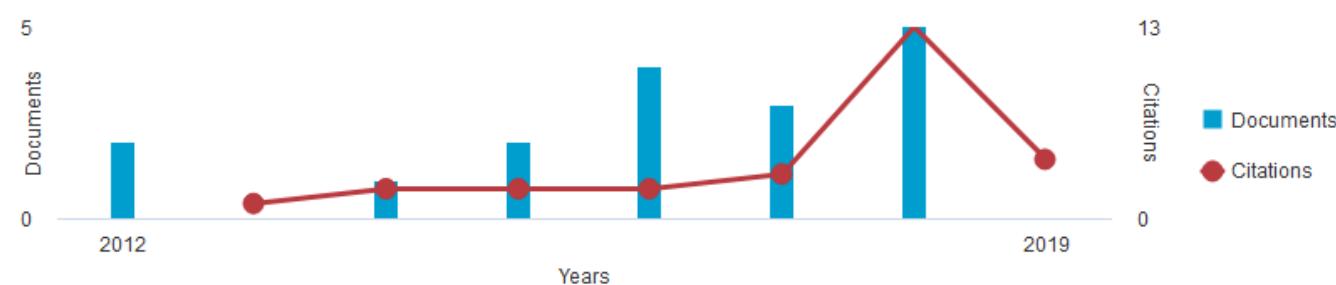
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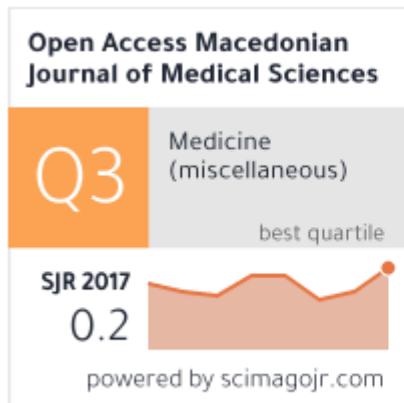
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# Introduction

major factor

transparency

nursing care

satisfaction

evaluate patient care

communication      collaboration

decision making

professional accountability



# Introduction

**unsatisfactory**



# Material and Methods

	233-bed	
89	emergency department 24 active beds	trauma centre
		470
general physicians,	32 nurses, 12 3 emergency physicians	assistants, 9



# Material and Methods

## participatory action research

### Kemmis's model

definition	planning	action	observation	: problem reflection
correction of evaluation tools forms	14 articles, workshops		revision methods	documentation



# 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)



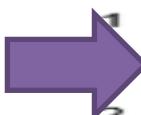
# Material and Methods

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
3. necessary modifications
4. continuing codified  
education

# Results



1- first phase

Virtual training

a written test

87.23%

100%

80%



# Results

**second phase:**

six nurses

two nurses

two nurses

chronometer

average admission time

in the emergency department within three working shifts was eight

# 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

monitoring

continuous documentation  
in three working shifts  
Telegram

A two-day specialized workshop

# Results



version of the form was developed

a new



# Results

documentation quality score



specific achievements of the research  
improvements to cooperation coordination

workshops and the employment of experienced nurses in the

# Discussion



the patient education form

low

effectiveness of the training

# Discussion



qualitative stage

work observation sessions time  
spent on completing electronic documentation  
longer than the regional standard 4  
minutes

# 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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