



Interruptions and operational failures in the work of nurses

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Aim

- Make better use of nursing knowledge and skills.
- Make better use of nurses time.
- Improve staff safety.
- Improve patient care and safety.





Background

- Work of nurses is mostly direct and indirect patient care with communication, documentation and medication administration being a big part of the work.
- Work of nurses is complex and threatened by its complexity and frequent interruptions and operational failures.





Mixed methods approach

- Observations
 - Quantitative – palmtop computer
 - Qualitative - dictaphone
- Interviews - dictaphone
- Human factor engineering





Site, setting and participants

- Landspítali-University Hospital
 - 2 med-surge acute care inpatient units providing primarily care to coronary patients
 - 12 8-hour morning- and evening shifts
 - Experienced nurses, working at least 60%, Icelandic speaking

IRB approval and written informed consent from participants obtained



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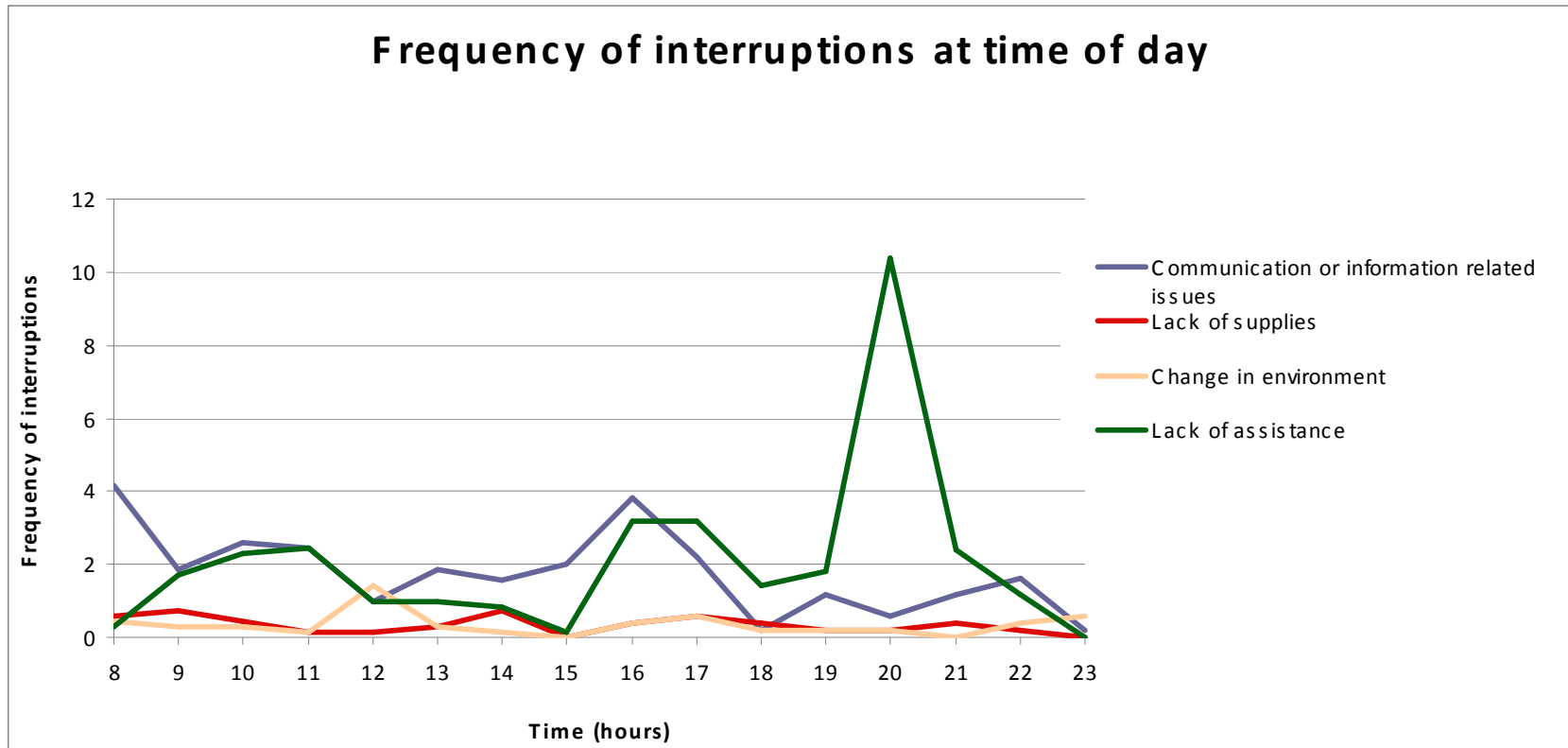
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Frequency of interruptions

Lack of assistance	183
- Direct patient care	103
- Indirect patient care	61
- Unit-related work	19
Communication/information	178
Change in environment	40
Lack of supplies	33
Total	434



Categories of interruptions and time





Interruptions occurred during

Direct patient care	36%
Indirect patient care	25%
Medication administration	23%
Documentation	12%
Unit-related work	3%
Private time	1%





Most frequent interruptions due to communication/information (total=178)

Communication with others – usually with colleagues	72
Delay due to another staff member – looking for a colleague	38
Searching for information about a patient	12



Most frequent interruptions due to lack of assistance – direct care (total=103)

Other – various different tasks	21
Takes vital signs	18
Provides drink/food to patient	12
Answers bell	10
Moves/changes position of patient in bed	10





Most frequent interruptions due to lack of assistance – indirect care (total=61)

Makes patient's bed	17
Other – various different tasks	14
Tidies up patient surroundings	13



Most frequent interruptions due to lack of assistance – unit-related work (total=19)

Answers telephone at nurses' station	10
Other	6
Cleans equipment	2
Prepares bed/place for a new patient	1



Most frequent interruptions due to lack of supplies (total=33)

Nursing supplies not in place	9
Medications not in place	6
Equipment not in place	5
Equipment does not work	5
Other	5





Most frequent interruptions due to change in environment (total=40)

Change in condition of patient (considered as normal part of nurses work, however documented)	26
Other	8
Instructs student or new employee	6





Key results

- Mean frequency of interruptions per hour = 4.52
- Mean time between interruptions = 13.27 min
- Mean length of walk during 8-hour shift = 6.5 km (range=5.9-7.4, N=4)
- The nurses were extremely accessible
- The nurses frequently shifted between tasks/projects and were usually involved in multiple tasks/projects at once





Conclusions from primary results

- Interruptions are frequent in nurses work in acute inpatient med-surge units in Iceland
- Special attention needs to be given to the interruptions due to:
 - Communication/information
 - Lack of assistance
 - Lack of supplies
- Type of interruption as well as its consequences need to be better analyzed to prioritize interventions



