

Article

Experiences and perceptions of emergency medical service nurses with preventive immobilization of spinal (cord) injuries after trauma: a qualitative study

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ABSTRACT

Background: In contrast to the National Protocol Emergency Medical Services (NPEMS) version 7.2 with strict rules about preventive spinal immobilization (PSI), a less specific NPEMS, version 8.1, was introduced in The Netherlands in 2015. **Aim:** To investigate experiences and perceptions of Emergency Medical Service (EMS) nurses related to the PSI-protocol change in the medical assistance process. **Methods:** A generic qualitative design with semi-structured face-to-face interviews was chosen. The COM-B-model was used to support the exploration of the experiences and perceptions. Thirteen EMS nurses of three EMS were interviewed. **Results:** Four themes emerged: expertise, safety, quality of care and reflection. More latitude for own professional expertise NPEMS 8.1 was experienced and appreciated positively. Doubt, knowledge and work experience were perceived as important factors in the decision making process. Risk avoidance were frequently applied. An increased need for feedback and evaluation was found to develop the expertise and skills. Delivering tailor-made care was perceived as a positive effect of NPEMS 8.1. **Conclusion:** The nurses appreciated the bigger latitude for tailored decision-making and their own professional expertise in working under NPEMS 8.1 positively. However, NPEMS 8.1 elicited more challenges such as doubt and the provision of a good physical assessment in the decision making process. Therefore, (background) knowledge, work experience and structural feedback became more important in NPEMS 8.1 than in NPEMS 7.2. And differences in the protocols EMS and hospitals are working with, were considered as undesirable and interfered with professional decision making. **Recommendations:** More research has to be done on how to prepare nurses for future protocol changes as well as the options for more consistency between protocols used by EMS and hospitals.

Key words: EMS nurse, preventive spinal immobilization, risk avoidance, knowledge, feedback

SAMENVATTING

Achtergrond: Na het Landelijk Protocol Ambulancezorg (LPA) versie 7.2 met strikte regels over preventieve wervelkolomimmobilisatie (PWI), werd in 2015 een minder specifieke LPA, versie 8.1, geïntroduceerd in Nederland. **Doel:** Het onderzoeken van ervaringen en percepties en van ambulanceverpleegkundigen volgens het PWI-protocol in het hulpverleningsproces. **Methoden:** Een generiek kwalitatief ontwerp met semigestructureerde face-to-face interviews is uitgevoerd. Het COM-B-model werd gebruikt om de verkenning van de ervaringen en percepties te ondersteunen. Dertien EMS-verpleegkundigen werden geïnterviewd. **Resultaten:** Vier thema's zijn naar voren gekomen: 1) Deskundigheid; 2)

Veiligheid; 3) Kwaliteit van zorg en 4) Reflectie. Meer speelruimte voor eigen professionele expertise in LPA 8.1 werd ervaren en positief gewaardeerd. Twijfel, kennis en werkervaring werden als belangrijke factoren gezien die een rol spelen in het besluitvormingsproces. Risicomijdend gedrag werd vaak toegepast. Er werd een toegenomen behoefte aan feedback en evaluatie gevonden om de deskundigheid en vaardigheden te ontwikkelen. Het leveren van maatwerk in de verpleegkundige zorg werd gezien als een positief effect van LPA 8.1. **Conclusie:** De ambulanceverpleegkundigen ervaren LPA 8.1 als positief omdat ze meer vrijheid hebben voor hun professionele expertise en dit als positief ervaren. Ze ervaren echter meer uitdagingen zoals twijfel en het uitvoeren van een goede fysieke beoordeling in het besluitvormingsproces. Ze zagen (achtergrond) kennis, werkervaring en structurele feedback als belangrijker in LPA 8.1 dan in LPA 7.2. Verschillen in protocol tussen de ambulancediensten en ziekenhuizen ervaren zij als ongewenst en beïnvloeden soms hun besluitvorming. **Aanbevelingen:** Er wordt meer onderzoek aanbevolen over de manier waarop ambulanceverpleegkundigen zich beter kunnen voorbereiden voorafgaand op een volgende PWI-protocolverandering en hoe PWI-protocollen van de ambulancediensten en ziekenhuizen beter op elkaar kunnen aansluiten.

Sleutelwoorden: ambulanceverpleegkundige, preventieve wervelkolomimmobilisatie, risicomijding, kennis, feedback

INTRODUCTION

Traumatic spinal cord injuries (SCI) occur relatively rare.¹ Regional and national rates differ considerably, while global incidence rates range from 3.6 to 195.4 cases per million people.²⁻⁶ SCI can result in an immediate risk of death, several and severe morbidities such as permanent neurological damage reflected in losing motor and/or sensory functions.^{7,8} To prevent or limit the risk of secondary (neurological) harm because of (unstable) spine fracture(s), literature shows restriction of the spinal motion after an accident, called immobilization, is indicated in the pre-hospital setting.⁹⁻¹¹

In the Netherlands, emergency medical services (EMS) nurses decide independently about applying preventive spinal immobilization (PSI). They are supported in their decision making during medical assistance by the handbook called National Protocol EMS (NPEMS).¹² While giving medical assistance, factors like work experiences, knowledge, availability of devices influences the decision making process.¹²⁻¹⁴ Michie et al state that experiences and perceptions are strongly related to behaviour and behavioural change, summarized in the capacity-opportunity-motivation-behaviour (COM-B)-model.^{15,16} Fishbein et al state that people's actual work place behaviour depends on and is influenced by several

variables like ideas about advantages and disadvantages in i.e. outcomes, capabilities to display desired behaviour in different circumstances, and social pressure.¹⁷

In the last decades, advantages and disadvantages of PSI for patients and EMS providers were studied. Although most of the studies were conducted more than 10 years ago and a reasonable number included healthy volunteers and samples of smaller than 60¹⁸⁻²³, disadvantages of PSI for patients described. For example increased anxiety²⁴, pressure ulcers^{21,25} and increased pain^{18,21}. For EMS providers, practical problems are described such as increased time on the location of the incident and increasing time before definitive, i.e. hospital care because of application of immobilization devices.^{26,27} These effects of PSI triggered a change in immobilization practices over the last years^{1,11,28-30} from strict to less stringent guidelines for PSI with more room for interpretation of EMS providers in the United States, Europe and also for the EMS nurses (nurses) in The Netherlands.³¹⁻³⁴

According to PSI, Dutch NPEMS version 7.2 contained explicit indications for strict PSI such as 'High impact trauma' and 'any mechanism causing a hard blow on head, neck, torso' were defined.³⁵ Since 2015, version 8.1 is used. In this version, the criteria for immobilization are less specific like 'neurological abnormality', 'pressure pain on spine' and 'when in doubt, immobilization'.³⁶ Compared to version 7.2 (7.2), the version 8.1 (8.1) criteria provides more latitude for selective immobilization caused by more room for personal judgement and decision making.

To our knowledge, there is no research on experiences and perceptions of nurses after the protocol change to less strict immobilization during the medical assistance process.

AIM

This study aims to create an in-depth view in the experiences and perceptions of Dutch nurses according to the change from strict (7.2) to selective (8.1) immobilization in the medical assistance process.

METHODS

1. Design

A generic qualitative design³⁷ was used because the nature of the objective is explorative, and has a primarily inductive character³⁸. The product is a description of experiences, perceptions caused by the NPEMS change from 7.2 to 8.1 in applying PSI^{39,40}.

2. Sample

To reach maximum variation⁴¹, purposive sampling was conducted. To obtain variation several EMS were invited to participated into the study and nurses (male and female) with a wide range of work experiences were included. Three well-known nurses working on three

EMS in the middle and mid-west of The Netherlands were asked to participate and select eligible participants within their EMS. Based on the inclusion criteria and instructions about the variation in participants, in a purposive way the nurses selected. After a positive response, the nurses pass on the participants to the researcher.

To compare experiences before and after the protocol change in 2015 combined with recent experiences with PSI, the inclusion criteria were work experience of at least 5 years and a minimum employment of 28 hours per week. In addition, sufficient Dutch proficiency was required to minimize the risk of misunderstanding.

3. Data collection

Data were collected from March 2019 to April 2019. Semi-structured face-to-face in depth individual interviews were taken. The number of interviews per EMS was equally divided between the regions. Twelve interviews were taken at the workplace and one interview was done at the home of the participant involved. During the interviews, no other people were present.

The researcher had a background as a general nurse and had substantial experiences in making policy of quality improvements in the emergency department (ED), and has no experiences as an EMS nurse. This study was the subject of the master Clinical Health Science.

The COM-B-model was used as theoretical framework to support the exploration of the experiences and perceptions.¹⁶ The theoretical domain framework (TDF) was used to make COM-B elements explicit to explore which domains were affected by the behaviour. In the interview the TDF was only used as a memory aid.⁴² The topic list was structured by the COM-B-elements and was divided in three parts: 1) the process steps of medical assistance, to collected nurses experiences, 2) questions about the perceptions and 3) the topics of professional behaviour. To investigate professional behaviour, the four elements found by Rogers and Ballantyne were used, including responsibility, relationships with and respect for patients, probity and honesty and self-awareness and capacity for reflection⁴³. Based on emerging themes in the analysis process and feedback of the supervisors, the topic list was adjusted six times. The final topic list is provided in appendix 1. During the interviews, the COM-B-elements supported the reflection on the answers and the formulating of follow-up questions.

One pilot interview was carried out before the start of the main data collection. The aim of this interview get familiar with the work of a nurse, especially the care for trauma patients, to build up the topic list and to be able to ask the right questions. This interview was not included in the data analysis.

4. Data analysis

A thematic analysis was conducted, because this is a flexible approach fitting within a generic qualitative design, to help identify and analyse for example experiences and perceptions of participants within the collected data and to report the themes as a description.⁴⁴ This analyse contains six steps⁴⁴ and was conducted in an iterative process: transcribing the interview and getting familiar with the data by rereading the transcriptions (step 1). After fragmenting the text, the fragments were open and consequently selective coded, based on the components of the COM-B-model (figure 1³⁹) (step 2). This way, apart from insight in the steps of the medical assistance process, more insight was gained on the underlying behavioural aspects. After the coding process, themes were searched by combining related codes (step 3). Found themes were checked in the code tree (step 4) and named (step 5). Initially, seven themes were found and thereafter merged into four themes. Depending on the outcome of the previous interviews, themes were adjusted. After interview eleven, no new themes emerged, and saturation was reached. Step 6 was the reporting the themes.

[Figure 1]

5. Validity

To enhance the validity of the data and analysis, some measures were taken. To improve rigourness, the researcher followed a training at the University of Utrecht in preparing and doing an interview before the data collection process. To increase the reliability, the interviews were audio-taped and transcribed verbatim. During the interviews, field notes were taken and processed in the transcriptions. To enhance the credibility, interviews were done face-to-face executed by the researcher: rapport was built up by an informal talk prior to the interview and an attentive attitude was taken. During the interview, the researcher summarized the answers of the participants and checked if the interpretation of the answers was correct.

In the analysis phase, peer reviewing and triangulation was done by two supervisors. Six interviews were read by the second supervisor [NL], a behavioural scientist, and five of these six interviews were also read by the first supervisor [WH], an ED-nurse and scientist. Feedback on the type of questions and relevance of questions, was discussed and processed into new topic lists and interviews. When no new themes emerged the researcher and the two supervisors established saturation. To confirm saturation, two extra interviews were taken. To increase the internal validity and to decrease the risk of selective coding by the researcher, the second supervisor checked the analysing process, the emerging themes, the psychological aspect and behaviour and the link with the COM-B-model. Differences in

opinions about coding and themes between the researcher and supervisors were discussed. In all cases, the code tree and themes were adjusted. To increase reliability and transparency, the data and analysis were completely traceable, because the interviews were audiotaped and the coding process was conducted in MAXQDA (18.2.0, VERBI GmbH). Only one participant wanted to receive the verbatim transcription and approved this. When reporting the themes, quotes were added to support the interpretation of the researcher. Also the consolidated criteria for reporting qualitative research (COREQ) was used.⁴⁵

6. Ethics

This study was conducted according to the principles of the Declaration of Helsinki⁴⁶, the General Data Protection Regulation⁴⁷ and the Netherlands code of conduct for integrity in science⁴⁸. The Medical Research Involving Human subjects Act (WMO)⁴⁹ was not applicable, so the guideline Good Clinical Practice was used⁵⁰. Approval of this research was obtained from the Ethical Committee of Utrecht (number 19/100). After selection and approval of the participants, a letter was sent to inform them about the study and ethical issues such as their rights and data security measures. All participants gave informed written consent, after which they were included in the study.

RESULTS

In the study, thirteen participants were interviewed and there were no drop outs (table 1 and 2).

[Table 1]

[Table 2]

Themes

Four main themes were found: 1) Expertise, 2) Safety, 3) Quality of care and 4) Reflection. The description of the themes is based on the COM-B-components (figure 1).

1) Expertise

This theme described how the protocol change connected to the capability of the nurses and what triggered the improvement of their skills and knowledge.

Under 8.1, nurses experienced more latitude for their own professional judgment based on their findings of the assessments and the possibility to apply selective immobilization. They perceived this as positive because it triggered the motivation-component: 8.1 does more justice to their own knowledge and expertise in delivering custom made care, while 7.2 was

experienced as a prescriptive protocol. In addition, they felt encouraged to conduct more thorough assessments before deciding to immobilize or not. However, compared to 7.2, in 8.1 more clinical reasoning was required in order to support their decisions. There is a higher need to argue their decisions and more background knowledge (knowledge about why they do things) was required to strengthen their capability.

“In 7.2, you had to immobilize based on the accident mechanism. Now, if I have a motorcyclist who has been thrown off his bike on the asphalt and be entitled to an injury, but has been very fortunate, then I will do a good assessment, and if it turns out that he has very little injury, I will take him to the hospital. But sitting on the stretcher. I did not have that freedom in 7.2.” (Respondent A13)

The education required for good decision making on the scene was sometimes perceived as in inadequately matching the required skills. In this training, a lot of attention was paid on the skills ('how') is given, but to a limited extent on background knowledge. Consequently, two groups of nurses emerged in the interviews: one who proactively searched for additional and actual knowledge. The second group was more passive in gathering new knowledge. The nurses experienced the transition from 7.2 to 8.1 as 'hasty' due to limited education and training prior to the change. Consequently, shortly after the change, for example in case of a motor vehicle accident, the decision to let the patient step out of the vehicle in case the patient had no complaints (in 8.1) instead of PSI with the help of a backboard and neck collar (in 7.2) seemed too far and made them tend to fall back to 7.2, the protocol they knew well and felt more safe.

Work experience combined with background knowledge and learning from each other important was perceived as helpful to increase their professionalism in the entire assistance process. They used this in situations for the future and it provided more confidence to the correctness of their decisions.

It was felt undesirable when ED-personnel did not always incorporate the arguments of nurses seriously before starting hospital treatment (opportunity). This leads sometimes to overruling their own professional judgement which was an incentive to immobilize the patient

“But if I am 100% sure that I have made a right decision, then I think: that's your business if you want to do it differently if I did it. But sometimes you think: I don't want those looks or those disapproving comments. So then I tend to immobilize someone more than I would have done if I went to another hospital.” (Respondent A4)

even when they thought it was not necessary to prevent negative comments of ED-professionals.

2) Safety

This theme described how nurses deal with doubt and personal and patient safety after the protocol change.

Nurses experienced a lot of doubt in providing medical assistance, which influenced the decision making process. Doubt was caused by a number of factors immediately after an accident: 1) patient-related factors such as stress, anxiety, adrenaline in the patient, cooperation of the patient, urgency to act; 2) environmental factors like stories of witnesses, behaviour of bystanders and 3) personal factors like previous experiences and the extent of training and confidence in executing good physical examination. Nurses indicate that the physical examination, called a risk assessment, had a limited value immediately after an accident due to the influence of distortion of the signals (capability). Due to the perceived doubt, nurses build in certainties for themselves to decrease the risk of making mistakes. Nurses indicate that they perform better physical examinations under 8.1, looking specifically at traces on the body that may indicate damage. They also perform a re-check more often to ascertain their decision. Assumptions made by the nurses during the medical assistance process were always objectivized as much as possible by the assessment. Most nurses attached great importance to the accident mechanism.

"I think based on the impact (the accident mechanism) that it will be nothing. But someone shows signs of being hurt. But is it myogenic or is it really the vertebrae? And I find that difficult." (Respondent A9)

In case of doubt, first they fall back on this point in determining whether to immobilize or not. When doubt still existed, nurses used the protocol indication 'When in doubt, immobilization'. They consider this decision as 'safe' for themselves and for the patient, trying to avoid not immobilized missed injuries (motivation).

"The whole assessment must be consistent, otherwise immobilize" (Respondent A2)

3) Quality of care

This theme described the opinion of nurses after the protocol change according to patient-oriented care and differences in practices between nurses (practice variation).

Nurses were eager to deliver patient centred care (motivation). They were convinced, tailor-made care in line with their professional judgement is more possible under 8.1 than during 7.2, what they perceived as positive. They perceived 7.2 was too strict and prescriptive resulting in for example the exclusion of a role for the patient in the immobilization process. In 8.1, there is a possibility for patients to immobilize his own cervical spine. Nurses were convinced that under 8.1 avoidance of unnecessary manipulations and risks such as hypothermia is possible. Another contributing factor for patient centred care is the diversity of

immobilization devices. They believe that the vacuum mattress is more comfortable than a backboard, especially in specific groups such as the elderly.

Because of the tailor-made care, they performed less immobilizations under 8.1. This

“And, you know, the older people who fall into nursing homes and who suffer from their backs or necks, I prefer to put them on a vacuum mattress. It's not fun on such a backboard, so the means should justify the goal, I always say.” (Respondent A1)

development is reinforced by the considerably increased safety of cars, resulting in fewer (major) injuries. In case of an expected different decision between the nurse and the hospital (opportunity), during the transport the nurse prepares the patient telling information about the possible different approach of the hospital.

The nurses recognized that since 8.1 more practice variation was present in prehospital care. Practice variation was caused by a combination of factors: 1) the room for multiple interpretation of the protocol, 2) the degree to which good physical examination can be done, 3) the degree of background knowledge present, 4) degree of work experience, 5) the extent to which nurses allow hospital policy to be taken into account in decision-making and 6) the variety of immobilization materials available to EMS. They perceived that variation in the extent to which nurses possess these components resulted in the range of practical variation. The nurses perceived this variation ranged from positive (tailor-made care, as mentioned before) to negative (safety risks for patients). The explanation about their negative opinion was that the latitude of 8.1 gave possibilities for handling the immobilization protocol casually, despite of the accident mechanism and signals from the patient and difference in interpretation of less specific criteria such as "suspicion" and "walking around". They stated that it is not clear to everyone where the boundary lies in these terms according to the

“By continuing to deepen into this matter. So not just interpreting: we no longer have to immobilize. No, I try to imagine the underlying principles. And I sometimes hear at the accident: oh, we do not have to immobilize anymore. Well, that's not the way it is, and that's not the way it is meant to be.” (Respondent A5)

protocol. They suggest this is caused by lack of proper training in handling 8.1 (capability). Another reason nurses perceive practice variation is the differences between the immobilization policy of the EMS and the hospitals involved and also between these hospitals. Some nurses take into account to which hospital the patient will be taken and comply with the policy of immobilization in the receiving hospital (opportunity).

4) Reflection

This theme described the need of nurses to receive feedback and evaluation points from colleagues and ED personnel.

According to the nurses, since 8.1 there is a greater need to reflect on their own actions and decisions about the available instruments and materials they have used during the medical assistance.

The protocol change to 8.1, peer evaluation has increased to a limited extent. Nurses perceived evaluation because of a no culture within EMS of evaluation on regular base. Nurses also experienced a greater need for feedback from the hospital about the accuracy of their assessment and actions. They want to learn from their experience, more than under 7.2. By receiving feedback on their decision making, they want to develop their clinical perspective and professional intuition that in turn can be used in following medical assistances (opportunity). This was perceived as an essential quality in the decision making process to reduce uncertainty and to improve decision making in the patients' best interest and for themselves (motivation). However, they expect to receive this feedback from the hospital, but some nurses were proactive in retrieving this information, whereas other nurses regret not having received this feedback.

"I always try to go to the hospital on the day itself or the day after to collect my feedback myself. In the long run you will reflect what you observe and estimate, combined with your knowledge and protocols, and you will reflect that on what you get back from the hospital. In this way I developed a certain clinical view." (Respondent A6)

After the change to 8.1, they experience no more missed injuries have been reported from the hospital or the MMEMS. Nurses saw this as an assurance that under 8.1 their level performance had not declined. Since 8.1, peer evaluation has increased to a limit extend.

"But I also think that when you work as a professional, you see whether you made the choice that you made was the right choice." (Respondent A4)

Discussion

To our knowledge, this study is the first investigation about the experiences and perceptions of nurses about the change from a strict to a less specific PSI protocol. Nurses perceived 8.1 as a positive change. Several factors facilitated the adoption of 8.1: 8.1 was an opportunity and motivation because of the latitude for their own professional judgment in decision making, extended number of immobilization devices and the possibility to deliver tailor-made care. Factors such as education and training, for example in executing assessments, played an important role in decision making process. Nurses acted differently in dealing with doubt and discussion, knowledge gathering and retrieving and processing feedback in their own actions. However, possibilities to improve their capabilities, such as feedback from EDs, were underutilized. Risk avoidance was applied for personal and patient safety. Differences

between the protocols of EMS and hospitals lead sometimes to the unnecessary application of PSI by nurses to protect themselves against negative feedback during the transfer on the ED.

More room for tailored decision making was perceived an advantage of the recent protocol because of the utilization of the professional expertise of the nurses and consequently it prevents immobilization in cases where there is no obvious need for. In addition, more room for professional judgement leads to more thoroughly assessments and, in case of doubt to, re-assessments. However, it does require more education and training which was not provided prior to the protocol change. Due to a lack of focus on the 'why' of the actions and optimal assessment skills in education, more doubt during the decision making process and risk avoidance existed. Another issue was the differences between protocols of the EMS and hospitals. It could result in unnecessary immobilization and discontinuity of care, which in the end could result in negative patient outcomes. This study showed a requirement of background knowledge, assessment training and structure of receiving and evaluation of feedback of hospitals and colleagues and collaboration between EMS and hospitals in developing the PSI-protocol. It also requires a well-performed implementation process taking into account the mentioned subjects above.

Searching for experiences and perceptions after an implementation within the EMS or experiences with tailor-made care through nurses, no relevant articles were found. Other studies were hard to find. The found studies were conducted in the emergency or critical setting and about other issues. The findings of the experienced need for education and training were similar to findings of Stafseth et al after the implementation of new score-system in the ICU⁵¹ and in a systematic review among which five (of nine) qualitative studies about barriers and enablers in managing patients in an acute setting in the ED of Craig et al⁵². Fishbein et al states in general that factors such as social pressure, skills and beliefs about advantages and disadvantages on i.e. outcomes determine what behaviour people displayed.¹⁷ This behaviour is also reflected in this study in the influencing factors (knowledge, work experience, tailor-made care) of how nurses deal with safety for the patient and themselves and the anticipation on potential discussions on the ED, for what 8.1 gave room. Findings of a Japanese study among nursing managers showed that years of work experience and education of nurses in decision making contributing to nursing professionalism what correspond with the perception of the nurses.⁵³

This study has some limitations. First, not all interviews were read and coded by both supervisors. However, during the project one meeting of researcher and both supervisors took place. In this meeting, only the code tree was subject of discussion. This process could have influenced the results. Second, there might be a risk of selection bias in this research, because of the preselection by the nurse practitioner. However, this may be limited as this

study had clear inclusion criteria. And the impact of preselection on the results may be partly neutralized because of the participation of nurses from three EMS and in addition of reaching data saturation.

More research is recommended to establish a learning loop for feedback to enlarge the expertise of the nurses. In addition, it will be useful to investigate how protocols of the EMS and hospitals can be connected to each other to create a continuity and increased quality of care.

Conclusion

Protocol 8.1 offered more room to apply professional expertise and they consider this to be an advantage. The main advantage was the greater perceived latitude for tailor-made care. However, nurses experience more challenges such as doubt on the physical assessment in the decision making process and thoughts about increased patient safety varied. They perceived (background) knowledge, work experience and structural feedback as more important under 8.1. Differences in protocol between EMS and hospitals were considered undesirable and sometimes influencing their decision making.

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Tables and figures

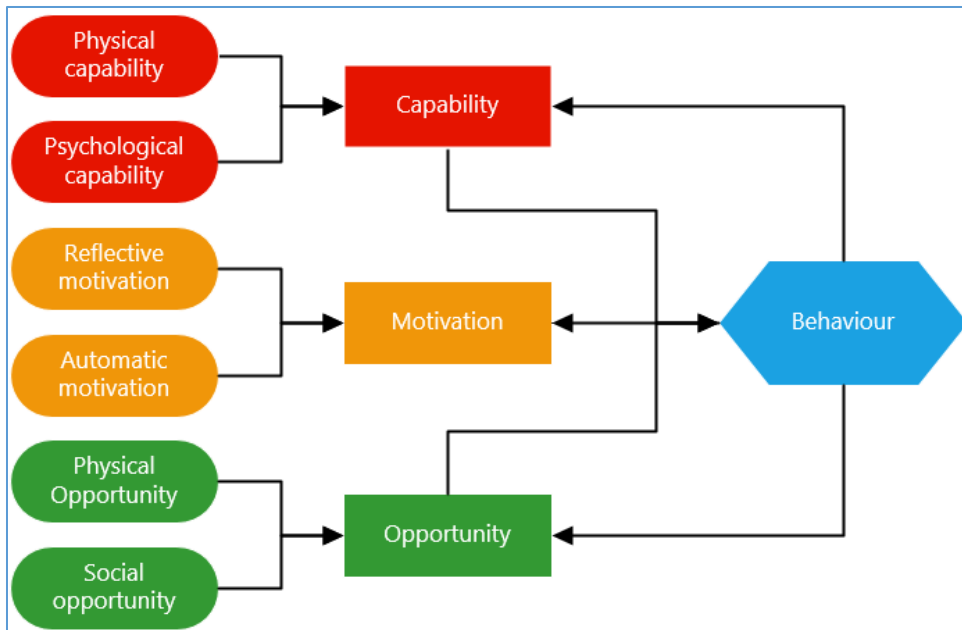


Figure 1 COM-B-model¹⁶

Table 1 Characteristics of participants (n = 13)

Sex	
Male	9
Female	4
Work experience (years)	
6 - 10	3
11 - 20	8
21 - 27	2
Employment (hours/week)	
28	2
32	3
36	8

Table 2 Characteristics of interviews

Interviews per region	
Middle	5
West	4
Mid-west	4
Length interviews (minutes)	
28 - 40	2
41 - 50	3
51 - 56	8

APPENDIX 1 Topic list

Topic lijst EMSPSI2019A29**Karakteristieken:**

- Geslacht: m/v
- Werkervaring: jaren
- Dienstverband: uur per week

Startvraag: Kun je meer vertellen over je laatste ervaring met preventieve wervelkolom immobilisatie?

Topics:**1. Ervaringen (oorzaak -> 7.2 naar 8.1)****a. Besluitvorming en indicatie:**

- Proces van besluitvorming (assessment-tool)
- Rol van de context, plaats van incident, ernst verwondingen, ervaring
- Rol van persoonlijke/professionele intuïtie
- Toepassing van het protocol

b. Uitvoering:

- Knelpunten

c. Vervoer en overdracht naar ziekenhuis:

- Transport
- Overdracht

d. Overig

- Patiëntveiligheid: verschil
- Eigen veiligheid (risico): verschil

2. Onderliggende oorzaken/motieven (COM-B)

Beïnvloeding perceptie/gedrag verhelderen of verklaren -> achterhalen drijfveren om bepaalde dingen wel of niet te doen. (o.a. weerstand)

3. Beïnvloeding professioneel gedrag

- Verantwoordelijkheid,
- Relatie met en respect voor patiënten,
- Oprechtheid en eerlijkheid,
- Zelfbewustwording en reflectiecapaciteit.

COM-B		TDF-domeinen
Capaciteit/ geschiktheid	Psychologische capaciteit	Kennis Cognitieve en interpersoonlijke vaardigheden Geheugen, aandacht en beslissingsproces Regulatie van gedrag
	Fysieke capaciteit	Fysieke vaardigheden
Kansen	Fysieke kans	Omgeving
	Sociale kans	Sociale invloed
Motivatie	Reflectieve motivatie	Sociale en professionele rol en identiteit Motivatie en doelen Geloof in capaciteiten Optimisme Geloof in gevolgen
	Instinctieve motivatie	Versterking Emotie

Naast de ervaring wordt dan ook inzicht verkregen in eventueel onderliggende oorzaken die die ervaring bepalen of een bepaalde lading geven, wat de perceptie beïnvloed. Hiermee kunnen drijfveren worden achterhaald om bepaalde dingen wel of niet te doen.