

NURSING STAFF and MUSCULOSKELETAL DISORDERS

How to promote the application
of preventive practices
in the workplace

DS-1017



Institut de recherche
Robert-Sauvé en santé
et en sécurité du travail

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SOURCE: Ziam, S., Sawsen, L., Laroche, É., Alderson, M. and Gagné, C. (2017). *Application des pratiques préventives par les infirmières et infirmiers — La perspective innovante de la capacité d'absorption* [Application of preventive practices by nurses — the innovative perspective of knowledge absorption capacity] (**Report no. R-985**), Montréal, Québec, Institut de recherche Robert-Sauvé en santé et en sécurité du travail.

ACKNOWLEDGEMENTS: We wish to thank the members of the follow-up committee for participating in the various consultations held during this study. This labour/management committee comprised representatives of the following organizations:

Association paritaire pour la santé et la sécurité du travail
du secteur affaires sociales (ASSTSAS)

Centrale des syndicats du Québec (CSQ)

Commission des normes, de l'équité, de la santé et de la sécurité
du travail (CNESST)

Fédération de la santé et des services sociaux de la Confédération
des syndicats nationaux (FSSS-CSN)

Fédération Interprofessionnelle de la santé du Québec (FIQ)

Ministère de la Santé et des Services sociaux (MSSS)

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PHOTOS: iStock, Shutterstock

LEGAL DEPOSIT

Bibliothèque et Archives nationales du Québec 2018

ISBN 978-2-89797-001-7

ISSN 2292-9444

April 2018

IRSST

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The purpose of this document is to promote reflection, present strategies facilitating the application, by nursing staff, of practices for preventing musculoskeletal disorders (MSDs), and propose ways of supporting the implementation of these strategies.

> TARGET AUDIENCE

This tool is intended for all individuals concerned by the prevention of MSDs among nursing staff, specifically:

- ▶ managers working in CISSSs and CIUSSSs (integrated (university) health and social services centres);
- ▶ professionals responsible for prevention in the workplace;
- ▶ persons responsible for training in CISSSs and CIUSSSs;
- ▶ persons responsible for nursing care agencies;
- ▶ teaching staff in training settings (universities, CEGEPs, etc.);
- ▶ unions; and
- ▶ nursing staff.

MUSCULOSKELETAL DISORDERS

In Québec, in 2016, nursing staff¹ in the health and social services sector alone reported 1,040 occupational time-loss injuries compensated by the CNESST². This represents 63.3 compensation days and \$7,749 of payouts per injury.

According to the Association paritaire pour la santé et la sécurité du travail du secteur des affaires sociales (ASSTSAS), musculoskeletal disorders (MSDs) related to moving patients or giving basic care are still the main cause of occupational injuries in Québec's health and social services sector.

MSD PREVENTION PRACTICES

A number of studies underscore the fact that these MSD risks could be avoided if nursing staff applied the recommended preventive practices. These practices include formalizing all steps in the patient handling process, organizing work spaces ergonomically, using the appropriate handling equipment, offering training sessions adapted to the work context, and ensuring the permanent presence of a resource person in the workplace. These are all proven measures that help reduce the incidence of MSDs if they are applied simultaneously. In reality, however, implementing these practices is more complex than it would initially appear. An IRSST-funded study has shed light on the obstacles faced by nursing staff in this regard. These obstacles arise mainly during application, not during knowledge assimilation, suggesting that the constraints have more to do with the workplace itself.

RESEARCH

This tool for reflection is the result of a 2017 study aimed at determining the conditions that influence the application of MSD prevention practices. This [study](#) had three components:

a **survey** of a representative sample of the nursing staff in Québec's health services network;

two **focus groups** composed of nursing staff and managers; and

an **exhaustive review of the literature** on the uptake and application of MSD prevention practices.

1. Nursing staff includes registered nurses (other than supervisors), nursing supervisors and student nurses. It excludes nursing assistants.

2. Data from NAICS 62 on occupational injuries that involve nursing staff with CNESST-compensated sick days.

HOW TO USE THIS TOOL

Based on the results obtained, the research team formulated a number of recommendations. They are presented here in the form of fact sheets on the **six main factors that influence the application of MSD prevention practices**. These fact sheets can be used to plan your prevention activities and in training sessions or discussions with your team members.

THE SIX FACT SHEETS

- 1 **SUPPORT** and **COMMITMENT**
from **MANAGEMENT**
- 2 **OCCUPATIONAL HEALTH** and
SAFETY CULTURE
- 3 **EVALUATION** and **FEEDBACK**
- 4 **ORGANIZATION** of **WORK**
- 5 **WORK ENVIRONMENTS**
- 6 **TRAINING** in the **WORKPLACE**

EACH FACT SHEET HAS THREE SECTIONS:



FINDINGS

Results of the nursing staff survey and comments from the focus groups.



RECOMMENDATIONS

The best MSD prevention practices in the workplace, based on the literature.



AND WHAT ABOUT YOUR ESTABLISHMENT?

Your suggestions of measures that could be taken to ensure the health and safety of the nursing staff in your establishment.

SUPPORT and COMMITMENT from MANAGEMENT

FINDINGS

The comments retained from the focus groups underscore the importance of raising direct supervisors' and management's awareness of the need for preventive practices.

73%

of the nursing staff reported not having received **regular reminders** of the best MSD prevention practices from their unit head.

60%

of them think that their unit head does not see MSD prevention as a **priority**.

“

Personally, I think that managers need to be made aware. [...] They have to believe that it's important.”

DIRECTOR OF HUMAN RESOURCES, UNIVERSITY HOSPITAL

“

This goes higher than just the unit head. It starts much higher up [...] It's essential that this become a commitment, a responsibility borne by the organization, that senior management make it a priority [...]”

DIRECTOR OF HUMAN RESOURCES, UNIVERSITY HOSPITAL

“

I know that for me personally, as a manager, it's important that my staff take their breaks. And I know there are days when that's hard to do. So it happens that the nurses don't take them. It always depends [...]”

HEAD NURSE, 11 YEARS IN HER JOB, SURGICAL UNIT, UNIVERSITY HOSPITAL





RECOMMENDATIONS

The work environment has an influence on the application of MSD prevention practices by nursing staff. Based on the literature, prevention must be championed by management and strong leadership that encourages the incorporation of best practices into organizational routines.

- Management commitment, which is essential to success, should be expressed through **visible support from managers**, communication and follow-up. It can take various forms, such as:
 - ▶ insisting on compliance with a policy regarding the compulsory use of appropriate equipment and techniques;
 - ▶ ensuring that funds are available for maintaining patient handling equipment;
 - ▶ funding training for all personnel;
 - ▶ implementing mechanisms for evaluating and following up on the effectiveness of the MSD prevention practices.
- It is important to introduce a **clearly communicated organizational policy** to underscore management's commitment to MSD prevention. This policy should stipulate the required practices for moving patients, including risk assessments and the use of adapted equipment. For example, a “zero lifting” policy could be adopted to provide guides for assessing the moving requirements for each patient and procedures for moving patients safely.



AND WHAT ABOUT YOUR ESTABLISHMENT?

- ▶ Do you see the support and commitment from management in your establishment as strong and constant with regard to the application of MSD prevention practices?
- ▶ In your opinion, what could management do to better support the application of MSD prevention practices in your workplace?

NOTES

OCCUPATIONAL HEALTH and SAFETY CULTURE

FINDINGS

The comments retained from the focus groups point to a reactive culture in the workplace, where prevention often becomes a concern only *after* an incident.

52%

of the nursing staff surveyed said that they had received **no training** or information on MSD prevention during their orientation period.

59%

of them indicated that they were given no encouragement to participate in **MSD prevention activities**.

“

If we have a problem, we have a special team [...] and at that time, we call on them. But we're in reaction mode, not prevention mode.”

HEAD NURSE, 11 YEARS IN HER JOB, SURGICAL UNIT, UNIVERSITY HOSPITAL

“

We have someone, a specialist, an expert, but he comes to assess things after the fact. [...] When there's a work accident...”

NURSE, 9 YEARS IN HER JOB, NEONATAL UNIT, CHILDREN'S HOSPITAL

“

If someone's injured, [...] then everyone's concerned and you mustn't injure yourself either. [...] But as soon as the person is back at work, everybody stops being concerned. [...] It's not part of the culture in the nursing environment.”

HEAD OF PATIENT CARE AND SERVICES, UNIVERSITY HOSPITAL



 RECOMMENDATIONS

Many studies have shown that it is easier to apply MSD prevention practices when the workplace culture encourages and values the health and safety of the nursing staff.

- **Management's commitment** to MSD prevention should be displayed through constant questioning and a concern for improving practices.
- An **occupational health and safety culture** should be developed by encouraging the nursing staff to build MSD prevention practices into their work routines (for example, by encouraging them to participate in prevention activities or by facilitating initiatives on their part).

A useful resource in this regard is the *Principes pour le déplacement sécuritaire des bénéficiaires* (PDSB, or safe patient handling principles) training program ([ASSTSAS](#), [PDSB fact sheets](#)) available in Québec, which equips personnel to “choose safe and efficient methods based on the possibilities and limitations of the work situation” or to “share the pertinent safety information with their team members.”

- **Through their support, direct supervisors** should motivate the nursing staff to apply preventive practices (for example, a unit head could set specific objectives regarding MSD prevention, issue regular reminders about the best practices or insist on the use of patient handling equipment).

 AND WHAT ABOUT YOUR ESTABLISHMENT?

- ▶ Do you see the culture in your workplace as encouraging and valuing the application of MSD prevention practices?
- ▶ In your view, what actions could be taken to raise awareness?

NOTES

EVALUATION and FEEDBACK

FINDINGS

The comments retained from the focus groups emphasize the need for feedback on handling practices.

80%

of the nursing staff reported that they did not receive regular **feedback** on their application of MSD prevention practices in their workplace.

79%

of them considered that the **effectiveness of the MSD prevention practices** is not evaluated regularly.

“

It takes follow-up. It takes people on the ground who'll remind you of things.”

OHS STAFF SUPPORT COUNSELLOR, PDSB TRAINER

“

I like the idea of training resource people. If there's someone trained around when you're working or performing your tasks [...] she can say, “you should do this like that.” I think that would be [...] more instructive [...]”

NURSE CLINICIAN, 6 YEARS IN HER JOB, PSYCHIATRIC HOSPITAL





RECOMMENDATIONS

A number of studies have shown the importance of introducing evaluation and feedback procedures that will enable nursing staff to adopt good MSD prevention practices.

- Feedback should come from **coordinators, coaches or resource persons** in the workplace in order to improve MSD prevention practices (for example, a co-worker who supports staff on the ground).
- The **resource person** should play a key role in training new personnel, problem solving, disseminating policies, and ensuring equipment availability and maintenance.
- The **PDSB trainers and follow-up agents should**, among other things, “facilitate discussions on the application of the PDSBs”, “encourage the application of prevention principles by offering feedback and tips during actual task performance (coaching)” or “assist in analyzing and solving problems related to moving patients.”



AND WHAT ABOUT YOUR ESTABLISHMENT?

- ▶ How would you describe the feedback process in your workplace with regard to MSD prevention practices?
- ▶ What feedback or evaluation mechanisms or means could be implemented in your establishment?

NOTES

ORGANIZATION of WORK

FINDINGS

The comments retained from the focus groups reflect a constant desire to save time and be efficient, at the risk of self-injury. The nursing staff do not take the necessary precautions because they are focused on performing their tasks within the allotted time.

69%

of the nursing staff cited **lack of time** as one of the main obstacles to the application of MSD prevention practices.

54%

of them mentioned **not having enough time** to apply MSD prevention practices.

40%

considered that the **absence of support from co-workers** constitutes a major obstacle to implementation of MSD prevention practices.

“

When I end up having to make decisions, it's often a matter of efficiency and of not wanting to bother the others [...] because I have to do it fast.”

NURSE, 7 YEARS IN HER JOB, EMERGENCY DEPARTMENT, TRIAGE, CHILDREN'S HOSPITAL

“

Safety “slows us down”, [...] we want to be efficient for the patient, we want to be efficient for our co-workers [...] But it's possible to do that meaning, to apply preventive practices in a short time. And to demystify, not to judge the person who asks for help simply because she wants to act safely.”

NURSE, 9 YEARS IN HER JOB, NEONATAL UNIT, CHILDREN'S HOSPITAL



 RECOMMENDATIONS

The literature points to the organizational factors underlying a work atmosphere where the application of MSD prevention practices is seen in a positive light and not as a waste of time.

- **Adopt an organizational policy** that promotes work dynamics incorporating MSD prevention practices (for example, peer mentoring helps support preventive practices).
- Place value on an **occupational health and safety culture** in which preventive practices are seen in a positive light:
 - ▶ By promoting dialogue among staff members on new practices to ensure their commitment to the process and facilitate implementation (for example, practical workshops, discussions or problem-solving sessions).
 - ▶ By involving staff members through a participatory approach (for example, helping them select the equipment to be purchased or determine the appropriate transfer devices for each patient and each transfer).
- Have **sufficient nursing staff** to reduce the pressure (a smaller workload means that more time can be spent on MSD prevention).

 AND WHAT ABOUT YOUR ESTABLISHMENT?

- ▶ Does the way in which work is organized in your establishment allow MSD prevention practices to be incorporated into the nursing staff's daily tasks?
- ▶ Does the way in which work is organized in your establishment facilitate the adoption of safe behaviours?
- ▶ What improvements could be made in the way in which the work is organized to promote adoption of safe behaviours?

NOTES

WORK ENVIRONMENTS

FINDINGS

The comments retained from the focus groups underscore shortcomings in terms of equipment availability and the layout of the physical work spaces.



86%

of the nursing staff saw the **availability of patient transfer** and **moving equipment** that is in good condition as a means of facilitating the application of MSD prevention practices.

49%

of them cited the **unavailability of efficient equipment** and of sufficient pieces of equipment, or the difficulty in accessing them, as factors hindering prevention practices when transferring or moving patients.

56%

indicated that they did not have the **physical space** required to apply MSD prevention measures properly.

“

In semi-private rooms, when you're trying to help with breastfeeding, sometimes at night, the husband is lying on a small mattress on the floor. You have to go into the room which also contains the baby's crib. In other words, you're all cramped up and you're trying to position yourself... Yup, it's not easy!”

NURSING ASSISTANT, HOSPITAL

“

Home care, [...] it's a lot more complicated. Because you don't have an adapted bed, people are often obliged to work [...] leaning over the patient. So there are a lot more injuries, musculoskeletal disorders.”

NURSE, CLSC, AMBULATORY SERVICES

 RECOMMENDATIONS

Many studies have stressed the importance of analyzing the work environment in order to promote implementation of appropriate measures for reducing the incidence of MSDs.

-  **Ergonomic assessments** should be performed of the work spaces (for example, layout of the units and rooms, physical obstacles, or patient transfers) and the work spaces should be arranged to facilitate access to handling equipment.
-  **Equipment specially adapted for patient handling should be used.** The patient's condition should be assessed beforehand in order to determine the most appropriate equipment for the patient's needs.

 AND WHAT ABOUT YOUR ESTABLISHMENT?

- ▶ Does your work environment facilitate the application of MSD prevention practices?
- ▶ What physical adjustments could be made to improve the situation?

NOTES

TRAINING in the WORKPLACE

FINDINGS

The comments retained from the focus groups indicate that the working conditions are much more demanding than those experienced in educational institutions and training centres.

10%

of the nursing staff mentioned not having received any **basic training** on MSD prevention, and 22% indicated not remembering any. The average number of hours of basic training received was 10.6.

41%

of them reported not having received any MSD prevention training in their **current job**. The average number of hours of training in this regard was only 3.7.

75%

indicated that they had not received any training on MSD prevention during the **12 months prior** to the survey.



There's got to be a better fit between the reality on the ground and the study programs.

When you study, you go and do your internships, you work at a ratio of 1 attendant per X number of patients, but when you actually arrive in the workplace, the ratio is much higher! You've got a lot of students who [...] find themselves unable to keep up with the work pace. We're putting them in a situation where the risk is quite high."

DIRECTOR OF HUMAN RESOURCES, UNIVERSITY HOSPITAL





RECOMMENDATIONS

A number of studies have found that training in the workplace has greater impact when it truly reflects the work context.

- Nursing staff should be given:
 - ▶ a **clear demonstration** of transfer methods using workplace equipment;
 - ▶ the **opportunity to practice** using these methods in the workplace; and
 - ▶ **direct feedback** on their methods (for example, from an experienced co-worker).
- **Training sessions should be adapted to the differences** that exist between the various premises, departments and units within the same establishment (for example, the particularities of the patients, layout of the different premises, or type of equipment available).



AND WHAT ABOUT YOUR ESTABLISHMENT?

- ▶ Is the MSD prevention training offered in your workplace adequate?
- ▶ In your opinion, is this training specifically adapted to your work context and your equipment?

NOTES

MSD PREVENTION PRACTICES IN YOUR WORKPLACE

In conclusion, research has shown that the impact of training is limited when it comes to reducing MSDs, even if training remains the preferred prevention approach in the health sector. Regarding the choice of preventive practices associated with MSDs, the recent literature recommends multiple prevention interventions for greater effectiveness, in which training is only one element. It should be complemented by the organizational policy, transfer equipment, safe environments, etc.

To encourage you to reflect on this subject, here are some actions you can take to improve MSD prevention practices among nursing staff.

- 1 Enlist management's support.
- 2 Promote a culture that facilitates the health and safety of nursing staff.
- 3 Provide evaluations of and feedback on the application of preventive practices.
- 4 Encourage work dynamics that facilitate safe behaviours.
- 5 Ensure that work environments are safe.
- 6 Offer training sessions adapted to the workplace.

These measures are presented separately here for the sake of clarity, but they should in fact be combined for more effective MSD prevention. The background study also underscores the importance of grounding prevention practices in the realities specific to each workplace in order to better address its needs. This means adapting training sessions to the various establishments, departments and units involved. This integrated approach ensures a much stronger foundation for preventing MSDs than training alone.

