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HEALTH PERCEPTION IN WORKERS EXPOSED TO HAND- ARM VIBRATION: PREREQUISITE FOR PUTTING IN PLACE AN EFFECTIVE PREVENTIVE PROGRAM IN THE WORKPLACE

Dr. Alice Turcot,
Institut national de santé publique du Québec,
Dr. Barbara Tessier,
Direction de Santé Publique Chaudière-Appalaches

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“Listen closely to what I am about to tell you...for us here, it’s too late, the harm’s been done...

Prevention was not an issue in the 70’s or the 80’s...Always pushing one because he’s small and can fit anywhere, or because he’s good he can do anything, he can do that...so there’s always been a minority with big problems...

We’re talking consequences here, today, we think of everything as a future consequence and what’s to come; young workers that are coming in. So they need to be well protected because they will end up with the same problems in 10 or 15 years.”

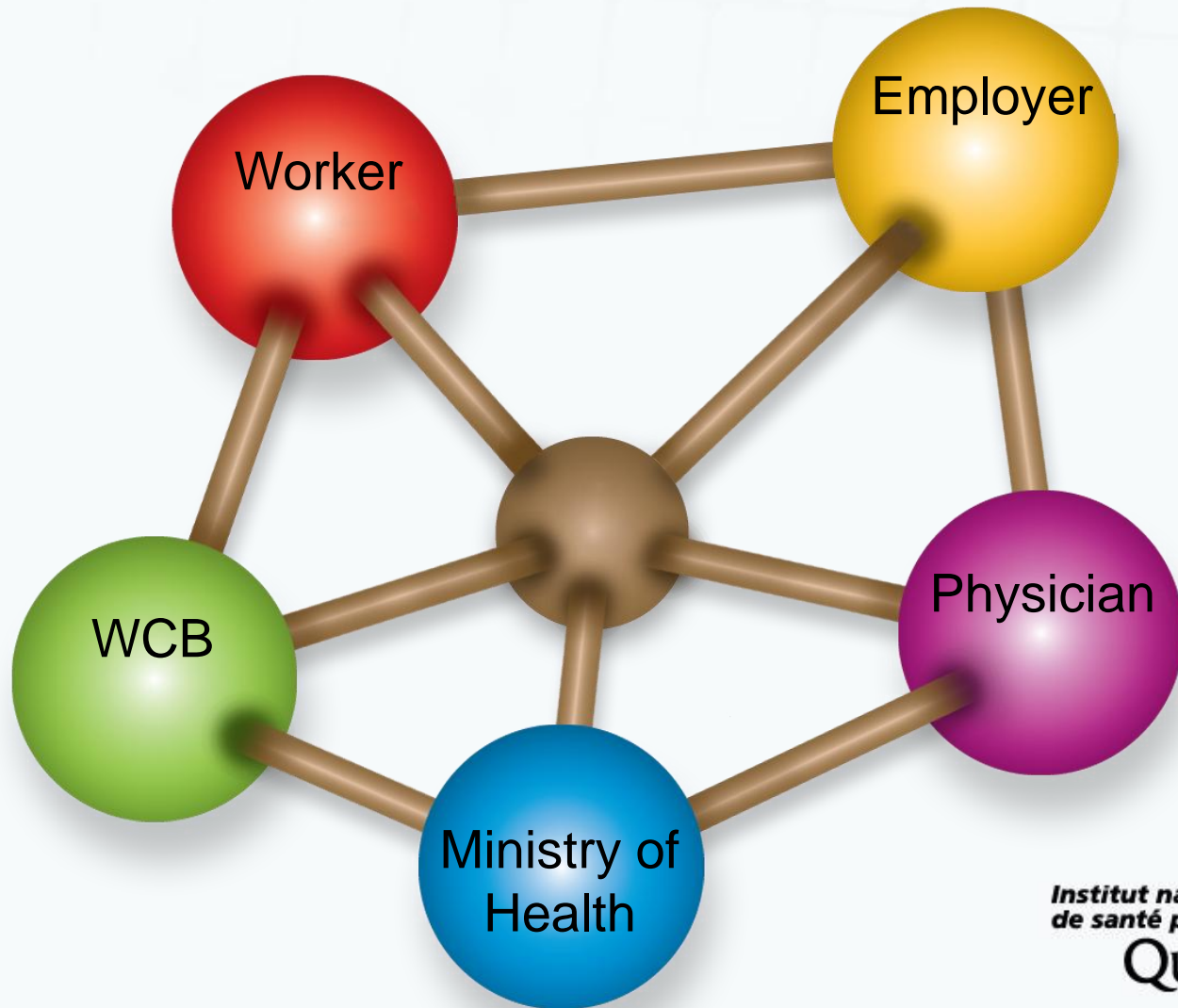
Presentation Plan

- HAVS in Quebec
- Theoretical Framework
- Research Objectives and Questions
- Methodology
- Results
- Principle study findings
- Conclusion

In Quebec

- Few annual compensation claims for HAVS
- Long delay - 9 years
- Low chance of returning to work
- Non-standardized methods of diagnosis

A system approach



Theoretical framework

GREEN & KREUTER'S PRECEDE/PROCEED

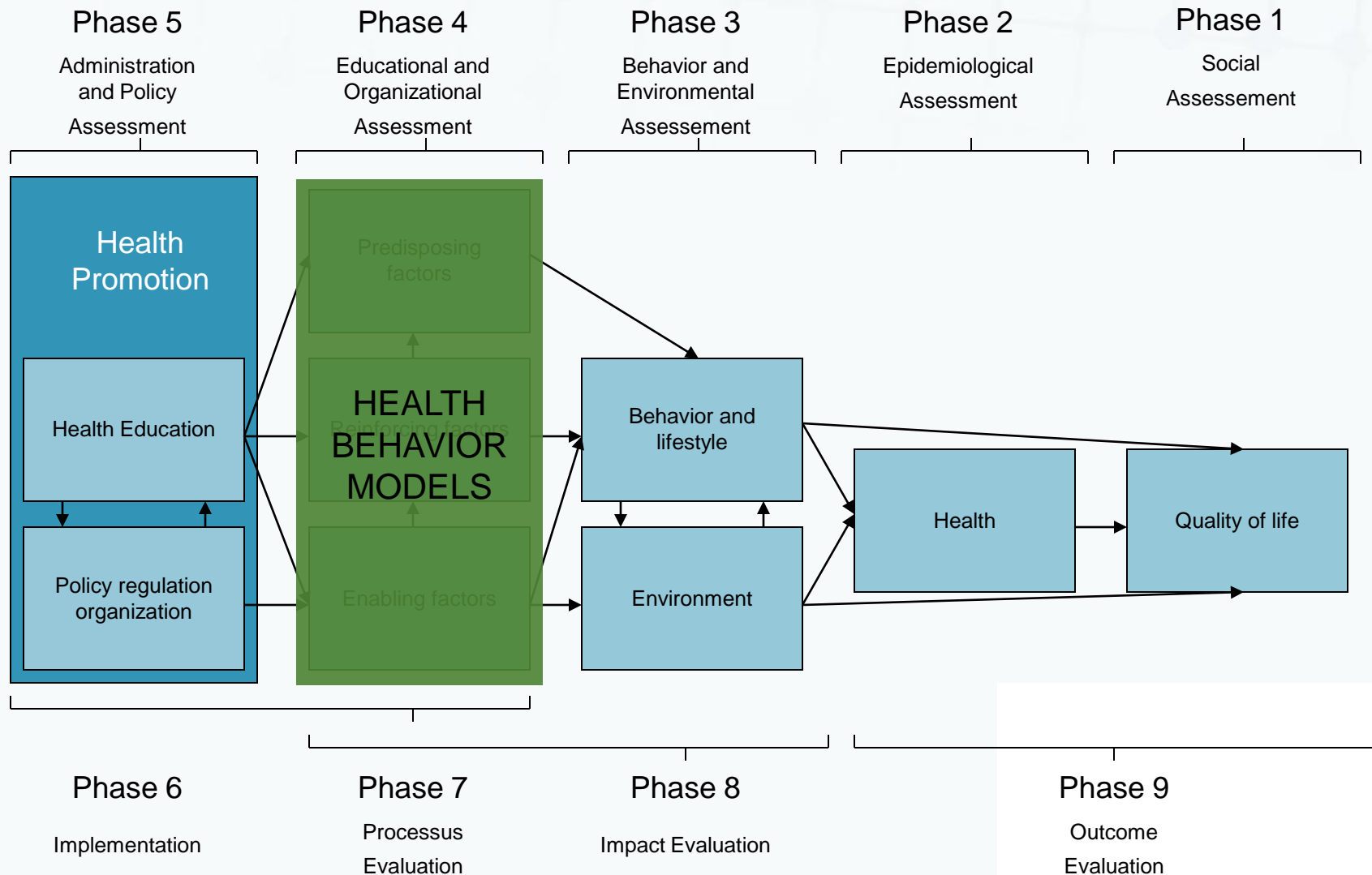
Sociological and ethnographic

Knowledge transfer

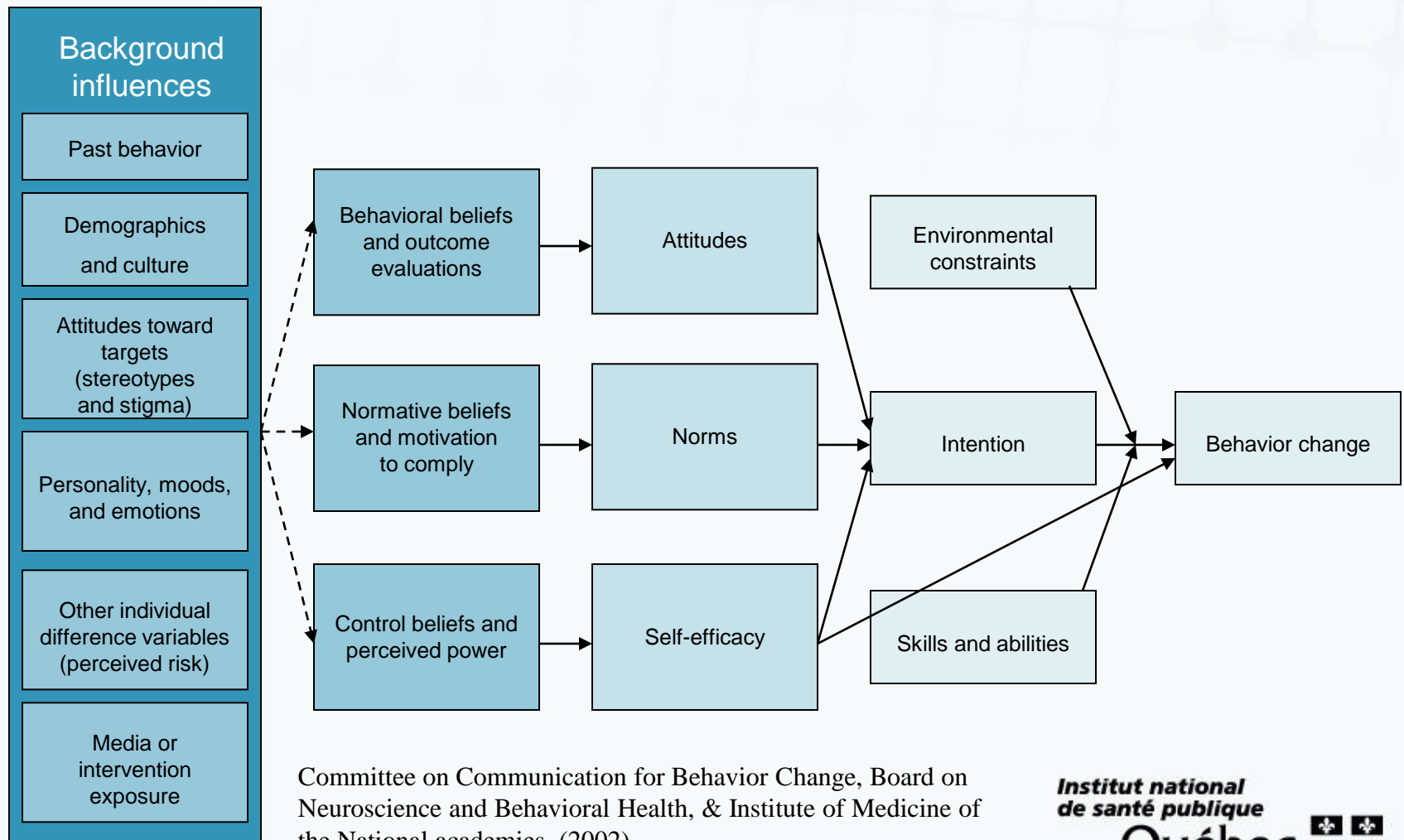
HEALTH BEHAVIOR MODELS

Risk perception

Green & Kreuter's PRECEDE/ PROCEED



INTEGRATED HEALTH BEHAVIOR MODEL



Committee on Communication for Behavior Change, Board on Neuroscience and Behavioral Health, & Institute of Medicine of the National academies. (2002)



Research objectives and questions

How do workers, employers and public health physicians perceive :

- Exposure to risks related to work with vibrating tools ?
- Strategies for preventing these risks ?
- Detection, health care and compensation measures ?

Methodology

- Qualitative research
- Focus groups with workers, employers, and physicians
- Semi-structured questionnaire
- Transcription of interviews
- Content analysis using N'Vivo
- Fragments were coded and analyzed in order to identify emerging categories and logics

Participants

3 Refusals

Focus Groups:

- 4 X workers (n = 29)
- 1 X students (n = 4)
- 2 X public health doctors (n = 7)
- 1 X employers (n = 4)

Individual Interviews:

- 1 X employer's representative (n = 1)
- 1 X union representative (n = 1)

Total: 46 participants from 4 different workplaces

WORKERS - Health

- Functional, free to move and do things
- Able to work
- It's related to quality of life
- A priority, an uncountable wealth
- Feeling well in your body
- Not being sick, having aches, and ails
 - Being sick is expensive

WORKERS-Exposure to vibrating tools

- Other worse risks are related to the job, and to the vibrating tools (noise, accidents, dust in eyes, lungs...)
- The job is hard, sometimes almost unbearable
- Things were worse 20-30 years ago.
- Risk taking is inevitable, part of the job
- The work must get done
- There is no alternative
- One must be tough to be accepted by co-workers (1 workplace)
- Accept being exposed all day long
- Some experience effects on exposure (numbing), some don't mind about them

WORKERS- Preventive Strategies

- Some see no solutions to prevent exposure
- Some think it rests mainly upon environment
 - physical : tool maintenance, table height..
 - organisational: collaboration between work groups, reducing material and quality standards, taking personal limitations into account, team work...)
- Techniques (looser grip, proper positions...).
- Paperwork won't take away vibrations
- Taking protective measures is either related to job quality or will be criticized by employer. It can be considered as “sissy”
- Gloves are mostly seen as cumbersome and unsafe
- Reducing exposure by alternating work tasks would be the best solution, but not always possible...

WORKERS - Exposure Limitation

- No one knows of official standards for duration and intensity of exposure
- Alternating, diversifying work.
- Others think it's impossible , useless
not enough easy tasks especially in small workplaces,
from one job to another, it's always vibrations.
- Employers abuse of good workers
- Workers cannot participate in planning production (tools used, rotating in order to limit exposure...)
- One would like to be allowed a 10 minute break instead of finding something to do (get sandpaper for others, go to the toilet...)
- One cannot ask for a break for fear for being sent home and replaced.
Boss will ask for proof of restrictions, and penalties will be applied.

YOUNG WORKERS-Exposure to vibrating tools

- *There is no problem with vibrations*
- It is tiring after long exposure but that's normal
- *Tools that emit higher percussions work better, more efficiently and are time saving*
- There are worse risks (noise)
- Ready to take risks to keep job

"I can't feel the effects none, it's as if I was holding a hammer. It don't bother me none. I could spend a day with it [the tool] and I'd have no problems"

YOUNG WORKERS Exposure Limitation

- No knowledge of standards of exposure limitation
- The job has to get done
- Rotating or breaks would be a good idea
-
- Rotating is impossible: no one else can do your job
- It would be difficult to ask the employer for breaks
- If you're not productive you can lose your job

YOUNG WORKERS-Preventive Strategies

- *There's nothing you can do against vibrations*
- Self protection is the main strategy
- Environment is already safe (glasses, gloves available against other risks...), especially compared to what's outside school
- You can protect yourself against everything nowadays

- Working techniques (ex.: tight grip, more pressure)
- Powerful tools will get things done faster
- By going faster, harm is reduced

EMPLOYERS-Health

- A worker does not have a concept for health until he is sick or exposed to other illnesses
- To be able to get up in the morning and come to work
- Workers are seen as cohorts taking on wear and tear with age.

EMPLOYERS Exposure to vibrating tools

- *Vibrations are only part of a large problem*
- Other risks appear from things worse than vibrations (noise, MSD, chemicals, welding fumes...)
- There is little experience with cases caused by vibrating tools
- *They've been doing this for 15 years, it must be ok*
- *The tools are essential, exposure is unavoidable*
- One would like to be perfect and offer a no risk workplace

EMPLOYERS - Preventive Strategies

Employers want prevention, to be proactive and invest in several health avenues, but uncertain of the path to follow:

- Investing in tools is the best prevention
- Prevention is expensive
- Workers do not persist in using preventive equipment or taking measures. One doesn't know why
- Gloves are offered as a solution to a person experiencing numbing

EMPLOYERS- Exposure limitation

- No knowledge of official standards for exposure limitation
- It takes an official standard to make things move
- One needs to know exposure intensity and have criteria to decide
- Not always possible to find alternative jobs. It is difficult to satisfy a worker who has a health problem

Public Health Physicians - Exposure

- Exposure to vibrating tools is associated with industrial sectors vs. the tool itself
- Problem awareness is relatively low
- Unfortunate that workers are not aware, except for the mining and forestry sectors
- Slow progression of illness: difficult to keep track of workers

Public Health Physicians Preventive Strategies

- Relative knowledge of preventive measures
- No search for solutions is done in the workplaces
- Obstacles related to rotation: young workers
- Little documentation of exposure risk contrary to other risks
- Interventions organized today are more information sessions rather than preventive
- **Workers wait to long before consulting**
- Investigation and disease recognition by specialists is not standardized
- **Fear of sending workers down the wrong path**

Medical Recourse

- Consultation: personal decision
- Surgery
- Obstacles

Non-Medical Alternatives:

- Home Remedies: showers, oils, cold water
- Massage therapy, acupuncture

Principle Study Findings

- Health means ability to work
- Disease awareness limited in workers, physicians, and employers
- Prevention is a shared desire by workers, doctors and employers
- Prevention and productivity are not soluble
- Obstacles with the putting in place of a preventive measure
- Emphasis placed in self-prevention
- Productivity

CONCLUSION

