

# Using Cartoon Strips as a Facilitating Tool to Implement Evidence Based Practice

Coutu, M.F., Durand, M.J.,  
Fassier, J.B., Labrecque,  
M.E., Loisel, P.,

# Background

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- ❑ Clinicians' adherence to Evidence Based Practice (EBP) is associated with a reduction in health care cost (Feuerstein, et al., 2006).
- ❑ However, there is still a gap between EBP and clinical practice (Bero, et al., 1998; Gonzalez-Urzelai, et al., 2003).

# Background

- In work disability prevention professionals from various disciplines are targeted
  - Medicine
  - Occupational therapy
  - Kinesiology
  - Psychology
  - Human health resources
  - Etc.



# Background

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## □ Main barriers to implementing EBP

- Lack of time
- Lack of knowledge
- Complexity of the information
- Negative attitudes and beliefs
- Resistance

(Saillour-Glenisson & Michel, 2003; Bekkering, et al., 2003; Olade, 2003; Grol, 1997; Spring, et al. 2007)

# Background

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- Addressing the barriers:
  - Medium
    - Clear, concise, coherent and convincing (Institute for work and health, 2004; Lavis, 2006).
    - Emotions could help the integration of the content (Wood & Moreau 2006).
    - Case examples have been recommended as an efficient medium (Canadian network in knowledge transfert, 2002).

# Background

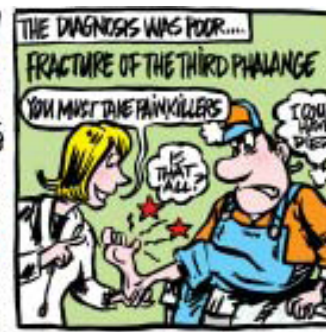
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- Addressing the barriers:
  - Medium
    - Two case examples
      - in the format of cartoon strips to captivate the targeted audience.
      - Summarize on one page key evidence based principles in work disability prevention.



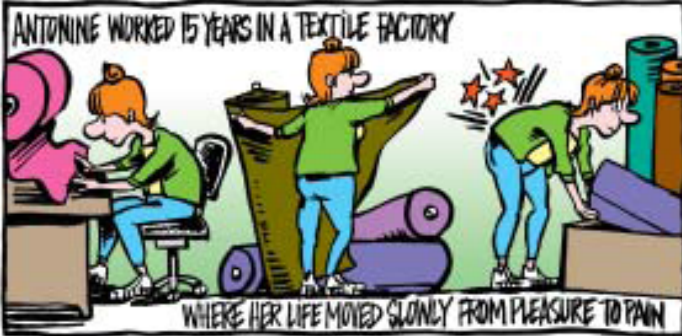
# Maurice's Left Foot

FROM INJURY TO RECOVERY





# Back to Work with a low back pain





# The comic strip

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- Dissemination model
  - Transferring empirical findings
  - Adapting the medium to the needs of the targeted audience (Landry, et al. 2001)

# The comic strip

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- The use of a comic strip may be perceived as less formal, but its funny aspect may help the appropriation of the knowledge by increasing attention and memory (Tardif, 1992).

# Aim

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- Validate the content and the medium per se as a facilitating tool to implement EBP.
  - Specific objective:
    - Evaluate the content validity of the comic strips among practicing health care professionals and future health care professionals in training.



# Methods

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- Design:
  - Qualitative and descriptive study.
- Participants
  - University training programs and continuing education trainings.
  - Two groups :
    1. Professionals having more than two years of experience in work rehabilitation (n = 18)
    2. Trainees in a discipline leading to practice in work rehabilitation (n = 25)

# Methods

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- Measure:
  - A questionnaire with open questions documented the understanding of the participant for each square of the cartoon strip.
  
- Analysis
  - Content analysis of the responses was performed to validate the content of the medium.

# Analysis

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- Inter-rater agreement
  - Landry's method for promoting the rigor of qualitative content analysis was adopted (Landry, 1997).
    1. Responses were coded by two coders
    2. Codes then compared
    3. Diverging results were discussed and clarified
  - This process was performed until the coders reached a satisfactory level of agreement, as defined by Landry (1997).



# Results

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## □ Participants

- Health care professionals (n = 18)
  - Occupational therapists (n = 11)
  - Ergonomists (n = 4)
  - Physiotherapists (n = 3)
- Average age = 33.5 years-old (SD = 10.34)
- Average years of experience 12.6 years (SD = 11.2)

# Results

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## □ Participants

### ■ Trainees

- Psychology (n = 19)

- Human resources (n = 16)

- Average age: 25.2 years old (SD = 4.7)

# Results

## Total number of identified principles

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	HCP	Psy	H.R.
Maurice	Mean = 11 Mode = 10 Min = 7 Max = 15	Mean = 10,6 Mode = 10,5 Min = 6 Max = 15	Mean = 10.3 Mode = 10.5 Min = 4 Max = 14
Sophie	Mean = 12.3 Mode = 13 Min = 8 Max = 16	Mean = 10,8 Mode = 11 Min = 6 Max = 15	Mean = 9.2 Mode = 9.5 Min = 2 Max = 15



# Results - Maurice

<b>Prognostics factors</b>	<b>HCP</b> %	<b>Psy.</b> %	<b>H.R.</b> %
Perception of dramatic consequences	100	87.5	90
Erroneous beliefs	88.2	68.8	70
Inactivity – lack of services	52.9	31.3	60
Lack of legitimacy	64.7	93.8	95
Distress/depression	82.4	81.3	80

# Results - Maurice

- Emerging – diverging principle
  - Human resources
    - Maurice's accident could have been avoided



# Results - Sophie

<b>Intervention principles</b>	<b>HCP</b>	<b>Psy</b>	<b>H.R.</b>
Reassurance	88.2	81.3	60
Physical activity	76.5	62.5	45
Acting on work-related factors	70.6	68.8	65
Collaboration	88.2	62.5	55
Learning working habits	58.8	62.5	73.2
Team work	94.1	93.8	60
Employer's support	64.7	18.8	25



# Discussion - conclusion

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- Results support the validity for both groups with key evidence based principles illustrated in the cartoon strip.
  - The comic strips can be used without a guide or a course.
  
- In order to increase the identification of more subtle principles a guide or a course would be important.

# Discussion - conclusion

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- Further validation need to be performed with human resources students and professionals in order to make sure that no diverging emerging principles are detrimental to the understanding of the key principles.