

Can a knowledge translation implementation strategy improve the evidence based management of ankle sprains by physiotherapists?

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Introduction

Lateral Ankle Sprains (LAS) are the 3rd most common injury among Canadian Armed Forces (CAF) members, resulting in a substantial rehabilitation workload for CAF Physiotherapists.

A survey¹ among CAF Physiotherapists reported discrepancies between their clinical practice and the management strategies recommended for LAS:

- Frequent use of electrotherapy modalities,
- Delayed balance & strengthening exercises,
- Limited balance & functional performance outcomes.

The survey also reported their preferred knowledge translation (KT) interventions:

- Distance learning,
- Summarized research knowledge,
- Opportunities for peer interaction.

In a follow up focus group² CAF Physiotherapists discussed perceived barriers to implementing research evidence into their clinical practice:

- Geographical distribution across Canada,
- Resource discrepancies in garrison/on deployment.

Our objective was to determine the effect of a distance learning program including summarized research & peer interaction on CAF Physiotherapists' self-reported knowledge of & practice using the management strategies recommended for LAS.



Methods

Our methodology was guided by the Knowledge-To-Action “Action Cycle”³

1. a) Identify problem

- Discrepancies reported between clinical practice & research evidence,
- Geographical distribution & resource discrepancies.

1. b) Identify knowledge needed

- The National Athletic Training Association (NATA) position statement on LAS management⁴ was selected as most appropriate for CAF members.

2. Adapt knowledge to local content

- The NATA content was adapted to reflect the CAF Physiotherapy slogan:

“Physical & measurable solutions to maintain and enhance operational readiness, anywhere, anytime.”

3. Assess barriers to knowledge use

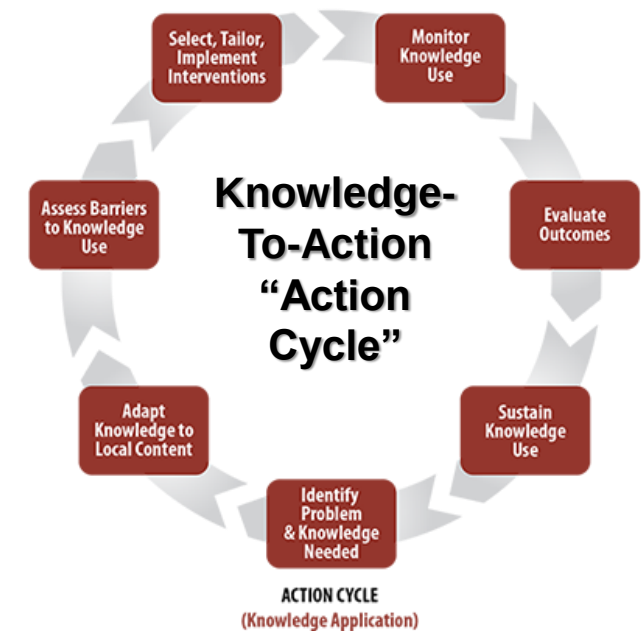
- A focus group denied implementation barriers in garrison/on deployment.

4. Select, tailor & implement interventions

- A distance learning program emphasizing summarized research & peer interaction opportunities was made available for all CAF Physiotherapists.

5. Monitor knowledge use

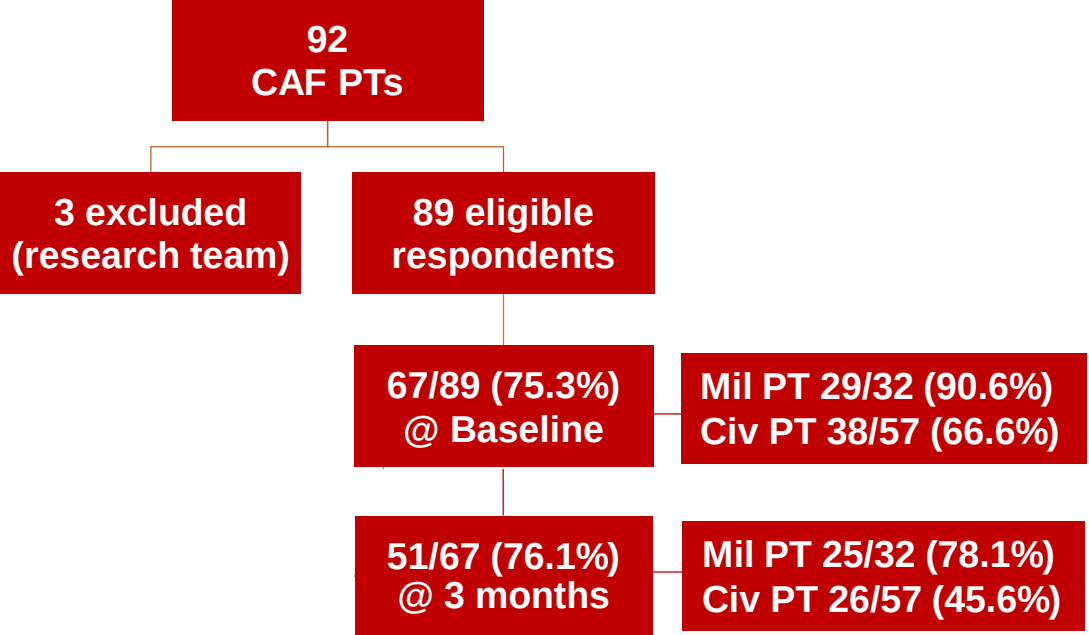
- A modified self-assessment of knowledge & performance using management strategies recommended in LAS was distributed to all CAF Physiotherapists at baseline & 3 months.



Self-assessment of knowledge & performance⁵

Knowledge (1 – 5)	Practice (1 – 5)
1 – I am not familiar with this task	1 – I never perform this task
2 – I am familiar with this task	2 – I perform this task rarely (≤25%)
3 – I have a working knowledge of this task	3 – I perform this task somewhat frequently (26-50%)
4 – I have the knowledge to teach this task in an informal setting	4 – I perform this task frequently (51-75%)
5 – I have the knowledge to teach this task in a formal setting	5 – I perform this task very frequently (≥76%)

Results



Outcome measures	Baseline		3 months	
	<i>K</i>	<i>P</i>	<i>K</i>	<i>P</i>
Patient Specific Functional Scale	4	2	4	3
Foot & Ankle Abilities Measure	2	1	4	4
Star Excursion Balance Test	3	2	4	4
Hop Testing	3	2	4	4

Interventions	Baseline		3 months	
	<i>K</i>	<i>P</i>	<i>K</i>	<i>P</i>
Avoid electrotherapy	5	5	5	5
Prescribe early rehabilitation exercise (<i>Balance, strength</i>)	5	5	5	5

Most influential KT intervention at 3 months	
Knowledge	Summarized research > Peer interaction
Practice	Summarized research > Practice tools

Discussion

Respondents reported excellent knowledge of & practice using the recommended interventions. The limited use of electrotherapy modalities & frequent early prescription of balance & strengthening exercises demonstrates improved evidence based management of LAS.

Respondents reported some improvement in their knowledge & good improvement in their practice using most recommended outcome measures. The frequent use of balance & functional performance outcomes demonstrates improved evidence based management of LAS.

Interestingly, respondents reported the KT intervention that most influenced their knowledge & practice was summarized research, suggesting that simple passive dissemination may have been an equally effective implementation strategy for CAF Physiotherapists.



Conclusion

This study reported that a distance learning program emphasizing summarized research & peer interaction opportunities improved CAF Physiotherapists' self-reported knowledge of & practice using management strategies recommended in LAS. Future studies investigating implementation strategies to improve evidence based management by CAF Physiotherapists should consider these results.

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