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**What makes a Moving and Handling People Guideline work?**

A thesis presented in partial fulfilment of the requirements for the degree of

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*'Only the person not reading the forecast is surprised by the storm'*

– *Unknown*



## **Abstract**

Moving and handling of people (MHP) is a major reason for developing musculoskeletal disorders (MSD) in the healthcare sector worldwide. To reduce MSD from MHP, many national and state level guidelines targeting MHP have been developed. However, little is known about their impact on injury claims rates, how they are intended to work, if intended users are aware of and use them, which parts of the guideline are being used, and how they are implemented.

Therefore, the overarching goal of this thesis was to contribute to understanding what makes a MHP guideline work. It was addressed by examining the effects of introducing the New Zealand Accident Compensation Corporation '*Moving and Handling People: The New Zealand Guidelines*' (MHPG), using a mixed-methods approach in five sequential studies. An analysis of claims data (Study 1) showed that MHP related claims rates declined before, but increased after the introduction of the MHPG. A study of the MHPG programme theory (Study 2) showed that key actors for implementation were MHP coordinators, H&S managers, and therapists. The developers argued for implementing a multifaceted MHP programme where implementation of organisational systems should create the foundation for implementing the core components. A questionnaire analysis (Study 3) showed that a high proportion of MHP coordinators, H&S managers, and therapists were aware of the MHPG, while a high proportion of therapists used it. In contrast, fewer carers were aware of and used it. A second questionnaire analysis (Study 4) showed that more key actors were familiar with and used the core components compared to the organisational systems. A low proportion of actors experienced change after use. Case studies (Study 5) showed that organisational motivation to implement a MHP programme was initiated by MHP related staff injuries. The implementation process was gradual, changing MHP practices during multiple steps, and dependent on a dedicated person to drive implementation.

This thesis shows that making a MHP guideline work requires a dedicated actor, with support from management, to facilitate implementation and organisational changes needed. However, many contextual factors affect implementation, ranging from national, e.g. legislation and policies, to individual level, e.g. individuals conducting MHP.



## Preface

In your hands, or on your screen, you have the thesis ‘What makes a Moving and Handling People Guideline work?’. This thesis attempts to contribute to improving our understanding of what makes a moving and handling people guideline work. This was done by examining the New Zealand Accident Compensation Corporation’s ‘*Moving and Handling People: The New Zealand Guidelines*’. The thesis investigated what parts of the guidelines worked, for whom, under what circumstances and, most interestingly, why they worked for some but not for others. The research described in the thesis was approved by the Massey University Human Ethics Committee Southern B (SOB 15/78) and conducted between October 2015 and December 2018.

I am very grateful to the many people who have supported and helped me bring this thesis to completion.

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Mark Lidegaard

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## Abbreviations

ACC	New Zealand Accident Compensation Corporation
DHB	District Health Board
FCC	The Five Core Components
FTE	Full-Time Equivalent employment
H&S	Health and Safety
MHP	Moving and Handling of People
MHPG	The New Zealand Accident Compensation Corporation ‘ <i>Moving and Handling People: The New Zealand Guidelines</i> ’
Moh	Ministry of Health
MSD	Musculoskeletal Disorders
OSC	The Organisational System Components

# Table of contents

Abstract.....	v
Preface.....	vii
Abbreviations.....	ix
List of illustrations & tables.....	xiv
Illustrations.....	xiv
Tables.....	xiv
List of publications and presentations.....	xvii
Peer-reviewed papers.....	xvii
Peer-reviewed conference contributions.....	xvii
Non-peer reviewed presentations.....	xviii
Reports.....	xix
Chapter 1. Introduction.....	1
The impact of MHP programmes and guidelines on injury claims rates.....	3
Summary.....	13
How are MHP programmes and guidelines intended to work.....	13
Awareness and use of MHP programmes and guidelines.....	16
How are MHP programmes and guidelines being implemented.....	18
Summary.....	20
Aims of this Thesis.....	20
The ‘Moving and Handling People: The New Zealand Guidelines’.....	21
Thesis design and methodology.....	23
Realist analysis.....	23
The five studies of the thesis.....	26
Justifications for the methods used in each of the five studies.....	28
How the five studies contribute to answering the aims of the thesis.....	33
Chapter 2. Impact of the MHPG on MHP related injury claims.....	35
Methods.....	35
Data collection.....	35
Data analysis.....	36
Statistical analysis.....	37
Results.....	38
Claims rates and claims costs for all industries.....	38
Claims rates per industry.....	39
Claims costs per industry.....	40
Claims causes.....	44

Discussion .....	47
Summary of the findings .....	50
Limitations and strengths.....	51
Link to next study.....	52
Chapter 3. Programme Theory Underlying the MHPG .....	53
Methods .....	53
Results .....	56
Discussion .....	65
Contextual factors.....	65
Users .....	69
CMO relationships of the MHPG .....	71
Implementation process and CMO for the Organisational System Components and the Five Core Components.....	74
Summary of the findings .....	76
Limitations and strengths.....	78
Link to next study.....	79
Chapter 4. Awareness and Use of the MHPG .....	81
Methods .....	81
Data Collection and Participants.....	81
Questionnaire .....	82
Statistical analysis .....	82
Results .....	83
Analysis by subsectors.....	85
Analysis by work role .....	89
Organisational size and awareness of the MHPG .....	91
Discussion .....	93
Summary of the findings .....	98
Limitations and strengths.....	98
Link to next study.....	99
Chapter 5. Familiarity of intended users with the MHPG sections, - their use and change after use.....	101
Methods .....	101
Data Collection and Participants.....	101
Questionnaire .....	101
Statistical analysis .....	102
Results .....	102
H&S manager .....	103

Manager .....	103
MHP coordinator .....	103
Therapist .....	104
H&S representative .....	104
Carer .....	105
Discussion .....	109
Summary of the findings .....	112
Limitations and strengths .....	112
Link to next study .....	112
Chapter 6. How are MHP programmes implemented .....	113
Methods .....	113
Data collection .....	113
Data analysis .....	117
Results .....	118
Case study 1 – ‘The Private hospital’ .....	118
Case study 2 – ‘The Public hospital’ .....	126
Case study 3 – ‘The frontrunner’ .....	135
Discussion .....	143
The case study organisations .....	143
Motivation for implementing a MHP programme .....	144
The process of implementing a MHP programme .....	144
Summary of the findings .....	149
Limitations and strengths .....	150
Chapter 7. Discussion .....	153
What was the impact of a MHP guideline on injury claims rate .....	153
How was a MHP guideline intended to work? .....	155
What was the awareness and use of a MHP guideline among the intended users? .....	158
What was the familiarity of the specific components of a MHP guideline, -the use and the change after use? .....	160
How was a MHP programme implemented? .....	163
What makes a moving and handling people guideline work? .....	165
Limitations and strengths of the thesis .....	167
Original contributions of the thesis .....	168
Chapter 8. Conclusions .....	171
Implications and suggestions for future work .....	173
Implications .....	173
Suggestions for future work .....	174

References .....	177
Appendices.....	193
Appendix 1: The impact of national guidelines covering moving and handling of people on injury rates and related costs.....	194
Appendix 2: How was a national moving and handling people guideline intended to work? The underlying programme theory.....	214
Appendix 3: Healthcare sector awareness and use of a national moving and handling people guideline .....	227
Appendix 4: Differences in familiarity, use, and change after use of the components of a national moving and handling people guideline .....	243
Appendix 5: How are moving and handling people programmes implemented – learnings from three case studies .....	254
Appendix 6: Adjustment factors used in Study 1 .....	282
Appendix 7: Example of interview schedule for developer interview used in Study 2.....	284
Appendix 8: Questionnaire used in Study 3 and Study 4.....	285
Appendix 9: Example of interview schedule for stakeholder interview used in Study 5 .....	296
Appendix 10: Chronicle workshop agenda used in Study 5 .....	300
Appendix 11: Statement of contribution forms (DRC16) .....	301

## List of illustrations & tables

### Illustrations

**Figure 1.1** *Relationship between the five studies in the thesis*

**Figure 2.1a** *MHP related injury claims rates per year for the period before (2005-2012) and after (2013-2016) the introduction of the MHPG and associated regressions lines*

**Figure 2.1b** *MHP related injury claims costs per year for the period before (2005-2012) and after (2013-2016) the introduction of the MHPG and associated regressions lines*

**Figure 3.1** *Contextual factors influencing the implementation of the MHPG*

**Figure 3.2** *Identified users intended to act and associated actions*

**Figure 3.3** *The ethical CMO relationship for the MHPG*

**Figure 3.4** *The economic CMO relationship for the MHPG*

**Figure 3.5** *The legal CMO relationship for the MHPG*

**Figure 3.6** *CMO relationship for the organisational systems*

**Figure 3.7** *CMO relationship for the five core components*

### Tables

**Table 1.1** *Overview of evaluations of MHP programmes and guidelines*

**Table 1.2** *Overview of how each of the five studies contributes to answering each aim*

**Table 2.1** *Claims numbers, claims rate, and claims cost stratified by industries from 2005 to 2016*

**Table 2.2** *Interrupted time series analysis of claims rates from 2005 to 2016*

**Table 2.3** *Interrupted time series analysis of claims costs from 2005 to 2016*

**Table 2.4** *Claims numbers stratified by claims causes from 2005 to 2016*

**Table 2.5** *Interrupted time series analysis of claims causes from 2005 to 2016*

**Table 3.1** *The final coding framework for the content analyses of documents, interviews, and MHPG*

**Table 4.1** *Distribution of respondents stratified by subsector, work role, and organisation size.*

**Table 4.2** *Frequency of respondents in the sector cohort being aware of the MHPG, having read, and used any section of the MHPG stratified by subsector*

**Table 4.3** *Sensitivity analysis of the sector cohort without including carers*

**Table 4.4** *How respondents became aware of the MHPG stratified by subsector and work role, respectively*

**Table 4.5** *Frequency of respondents in the work role cohort being aware of the MHPG, having read, and used any section of the MHPG stratified on work role*

**Table 4.6** *Sensitivity analysis (i.e. excluding carers) of the sector cohort*

**Table 5.1** *Familiarity with, use of, and change after use for H&S managers and managers stratified on sections (sections 3-13) of the MHPG.*

**Table 5.2** *Familiarity with, use of, and change after use for MHP coordinators and therapists stratified on sections (sections 3-13) of the MHPG*

**Table 5.3** *Familiarity with, use of, and change after use for H&S representatives and carers stratified on sections (sections 3-13) of the MHPG.*

**Table 6.1** *Overview of the work roles selected for interview and participation in the chronicle workshop.*

**Table 6.2** *How the private hospital implemented the different organisational system components and core components of a MHP programme. Contextual levels are indicated as: Supra-Macro (SM); Macro (Ma); Meso (Me); and Micro (Mi).*



**Table 6.3** *How the public hospital implemented the different organisational system components and core components of a MHP programme. Contextual levels are indicated as: Supra-Macro (SM); Macro (Ma); Meso (Me); and Micro (Mi).*

**Table 6.4** *How the frontrunner implemented the different organisational system components and core components of a MHP programme. Contextual levels are indicated as: Supra-Macro (SM); Macro (Ma); Meso (Me); and Micro (Mi).*

## List of publications and presentations

### Peer-reviewed papers

1. **Lidegaard, M**, Olsen, KB, Legg, SJ, and Douwes, J. The impact of national guidelines covering moving and handling of people on injury rates and related costs. *Scandinavian Journal of Work, Environment, and Health*. E-pub ahead of print. <https://doi.org/10.5271/sjweh.3818>
2. **Lidegaard, M**, Olsen, KB, and Legg, SJ. How was a national moving and handling people guideline intended to work? The underlying programme theory. *Evaluation and Program Planning*. Apr; 73:163–75. <https://doi.org/10.1016/j.evalprogplan.2019.01.002>
3. **Lidegaard, M**, Olsen, KB, Legg, SJ, and Douwes, J. Awareness and use of a national moving and handling people guideline. (*Manuscript in preparation*)
4. **Lidegaard, M**, Olsen, KB, and Legg, SJ. Familiarity, use, and change after use of the components of a national moving and handling people guideline. (*Manuscript in preparation*)
5. **Lidegaard, M**, Olsen, KB, Legg, SJ, and Trevelyan, F. How are moving and handling people programmes implemented – learnings from three case studies. (*Manuscript in preparation*)

### Peer-reviewed conference contributions

1. **Lidegaard, M**, Olsen, KB, and Legg, SJ. Identifying the program theory underlying a national intervention programme: the New Zealand Moving and Handling People Guidelines. International Scientific Conference on the Prevention of Work-Related Musculoskeletal Disorders (PREMUS) 2016. Abstract accepted for oral presentation, (presentation withdrawn)
2. Lahti, H, Legg, SJ, **Lidegaard, M**, and Olsen, KB. Effectiveness of National Moving and Handling People Programs. Human Factors and Ergonomics Society of Australia Conference (HFESA). May 2017. Abstract accepted for poster presentation
3. **Lidegaard, M**, Olsen, KB, and Legg, SJ. Uptake and use of national health guidelines on moving and handling of people- A questionnaire survey of a national health

guideline. International Ergonomics Association Congress (IEA), August 2018. Abstract accepted for oral presentation

4. **Lidegaard, M**, Olsen, KB, and Legg, SJ. What facilitates or hinders the implementation and impact of a national health guideline - learnings from case studies in the healthcare sector. International Ergonomics Association Congress (IEA), August 2018. Abstract accepted for oral presentation
5. Olsen, KB, **Lidegaard, M**, and Legg, SJ. Chronicle Workshops as Data Collection Method in Evaluation of National Work Environment Intervention. International Ergonomics Association Congress (IEA), August 2018. Abstract accepted for oral presentation
6. Lahti, H, Olsen, KB, **Lidegaard, M**, and Legg, SJ. Barriers and Facilitators in Implementing a Moving and Handling People Programme –An Exploratory Study. International Ergonomics Association Congress (IEA), August 2018. Abstract accepted for oral presentation
7. Olsen, KB, **Lidegaard, M**, and Legg, SJ. What makes a national moving and handling guideline work or not? Nordic Human Factors and Ergonomics Society Conference, August 2019. Abstract accepted for oral presentation.

## **Non-peer reviewed presentations**

1. **Lidegaard, M**, Olsen, KB, and Legg, SJ. Uptake, Use & Impact of the ACC New Zealand Moving and Handling People Guidelines, 2012. Moving and Handling Association of New Zealand (MHANZ) Annual General Meeting May 2016. Oral presentation
2. **Lidegaard, M**, Olsen, KB, and Legg, SJ. How/Do national health guidelines work? A realist analysis of the New Zealand Moving and Handling People Guidelines. Human Factors and Ergonomics Society of New Zealand Conference (HFESNZ), September 2016. Oral presentation

3. **Lidegaard, M**, Olsen, KB, and Legg, SJ. Use of the ACC 'Moving and Handling People Guidelines, 2012 - Results from a national survey. Moving and Handling Association of New Zealand (MHANZ) Annual General Meeting, May 2017. Oral presentation
4. Lahti, H, Olsen, KB, **Lidegaard, M**, and Legg, SJ. Can guidance material about moving and handling of people help to reduce musculoskeletal discomfort in the health care sector? Human Factors and Ergonomics Society of New Zealand Conference (HFESNZ), September 2017. Oral presentation

## Reports

1. Olsen, KB, **Lidegaard, M**, and Legg, SJ. Assessment of the uptake and impact of the ACC New Zealand Moving and Handling People Guidelines (2012). Report. Stage 2: Uptake and use, Part A: Descriptive analysis of questionnaire findings. New Zealand Accident Compensation Corporation, November 2016
2. Olsen, KB, **Lidegaard, M**, and Legg, SJ. Assessment of the uptake and impact of the ACC New Zealand Moving and Handling People Guidelines (2012). Report. Stage 2: Uptake and use, Part B: Analysis of questionnaire findings stratified by role in relation to moving and handling people and by sub-sector in health care. New Zealand Accident Compensation Corporation, January 2017
3. Olsen, KB, **Lidegaard, M**, and Legg, SJ. Assessment of the uptake and impact of the ACC New Zealand Moving and Handling People Guidelines (2012). Report. Stage 3: Injury claims. Trends in injury claims and claims cost related to moving and handling people 2005 - 2016. New Zealand Accident Compensation Corporation, June 2017
4. Olsen, KB, **Lidegaard, M**, and Legg, SJ. Assessment of the uptake and impact of the ACC New Zealand Moving and Handling People Guidelines (2012). Report. Stage 4: Case studies. Factors facilitating and hindering implementation and impact of the MHPG and MHP programme elements. New Zealand Accident Compensation Corporation, December 2017

5. Olsen, KB, **Lidegaard, M**, and Legg, SJ. Assessment of the uptake and impact of the ACC New Zealand Moving and Handling People Guidelines (2012). Final report, recommendations. New Zealand Accident Compensation Corporation, December 2017