

Functional Outcomes Following Injury

Preliminary Results – Three months after injury

Prospective Outcomes of Injury Study (POIS)
New Zealand

Sarah Derrett

Injury Prevention Research Unit



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AIMS



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1) Determine factors leading to outcomes following injury for New Zealanders: injury, rehabilitation, personal, social and economic factors

2) Qualitatively explore with sub-groups, including Māori, their lived experiences and perceptions of injury and outcomes



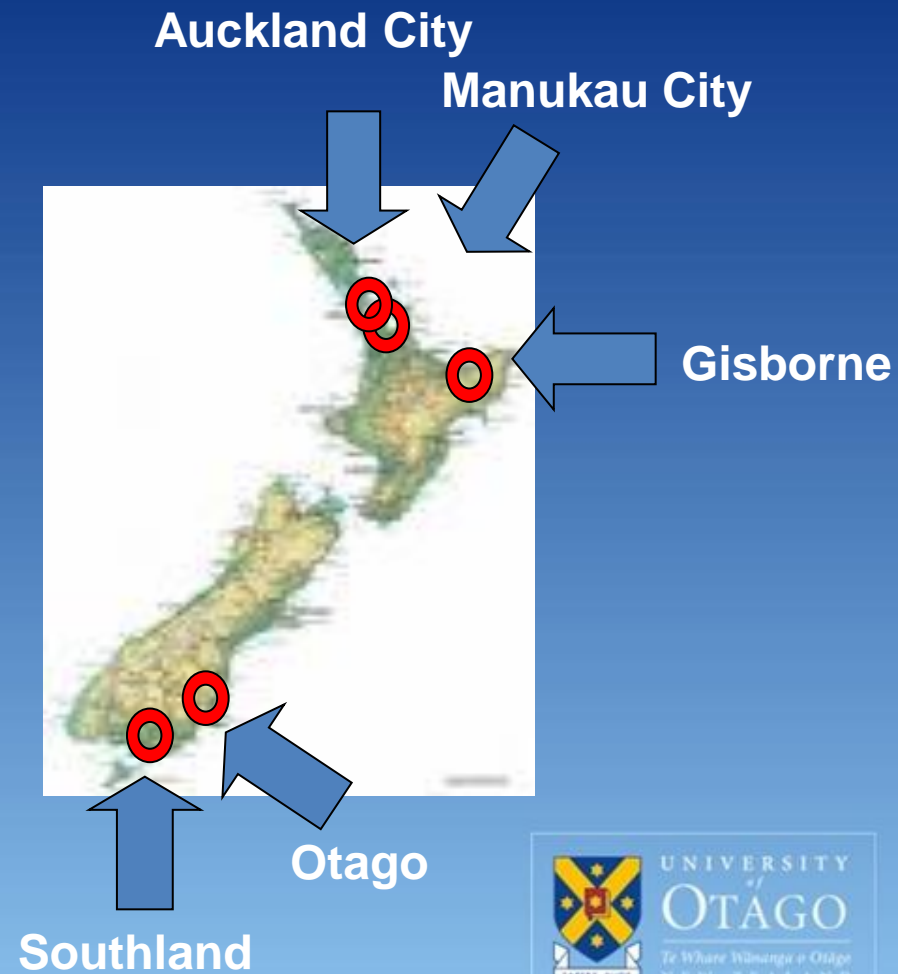
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Background

- Gender, post-injury stress, length of stay in hospital, depression and injury characteristics predict functional outcomes
- Few considered pre-injury characteristics
- Poor follow-up rates
- Hospitalised , ‘serious’ injury, return to work outcomes only
- New Zealand’s context
- Accident Compensation Corporation (ACC)

Methods

- ACC entitlement claimants
- 5 regions
- 18-64 years
- NZ residents/citizens
- 4 interviews
- 3, 5, 12 & 24 months
- Health and ACC data



COHORT CHARACTERISTICS



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n=2860

Characteristics	n (%)
Gender	
Men	1758 (61)
Women	1102 (39)
Age (years)	
18-24	393 (14)
25-44	1222 (43)
45-64	1245 (43)



Injury type/body region	n	(%)
Leg fracture	179	(6)
Leg other	396	(14)
Leg multiple	475	(17)
Arm fracture	157	(6)
Arm other	271	(10)
Arm multiple	311	(11)
Brain injury	123	(4)
Other head and/or neck injury	74	(3)
Back or spine injury	221	(8)
Torso other	106	(4)
Multiple injuries	542	(19)

FUNCTIONAL OUTCOME



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Mobility

The EQ-5D

Self-care

- 1 – I have no problems with self-care
- 2 – I have some problems washing or dressing myself
- 3 – I am unable to wash or dress myself

Usual Activities

Pain or Discomfort

- 1 – I have no pain or discomfort
- 2 – I have moderate pain or discomfort
- 3 – I have extreme pain or discomfort

Anxiety or Depression



The EQ-5D

Mobility

Self-care

- 1 – I have no problems with self-care
- 2 – I have some problems washing or dressing myself
- 3 – I am unable to wash or dress myself

Usual Activities

Pain or Discomfort

- 1 – I have no pain or discomfort
- 2 – I have moderate pain or discomfort
- 3 – I have extreme pain or discomfort

Anxiety or Depression

- 1 – No problems
- 2 – Any problems

PRE-INJURY & INJURY FACTORS WITH FUNCTIONAL OUTCOMES 3 MONTHS AFTER INJURY



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Hypothesis

Aside from the nature of injury...

A range of other factors related to the injured person and his or her environment, are important in explaining functional outcome following injury



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Pre-injury variables

- Gender
- Age
- Pre-injury function
- Living with others
- Education
- Self-assessed health
- Chronic conditions
- Disability
- BMI
- Hazardous drinking
- Cigarette smoking
- Illicit drug use
- Exercise frequency
- Self-efficacy
- Pessimism
- Depressed mood
- Spiritual belief
- Paid employment
- Enough money

Injury characteristics

- Injury region/type
- Assaultive intent
- Admitted to hospital
- Perceived threat to life
- Perceived threat of severe disability
- Trouble accessing health services for injury



Mobility (Preliminary) (41%)

Variable	OR	(95% CI)
Pre-injury		
Female	1.3	(1.1, 1.6)
Age 25-44 cf 18-24	1.3	(1.0, 1.7)
Age 45-64 cf 18-24	1.6	(1.2, 2.1)
Chronic conditions	1.5	(1.2, 1.9)
Pessimism	1.5	(1.2, 2.0)
Injury		
Admitted hospital	1.6	(1.3, 2.0)
Threat to life	1.5	(1.1, 2.0)
Threat of severe long-term disability	1.5	(1.3, 1.8)
Trouble accessing health services	1.8	(1.3, 2.4)

Pain or Discomfort (Preliminary) (69%)

Variable	OR	(95% CI)
Pre-injury		
Female	1.5	(1.3, 1.8)
Age 25-44 cf 18-24	1.6	(1.2, 2.1)
Age 45-64 cf 18-24	1.5	(1.1, 1.9)
Chronic conditions (two or more)	1.4	(1.1, 1.9)
Disability	1.4	(1.0, 1.8)
Cigarette smoker	1.3	(1.0, 1.5)
Injury		
Admitted hospital	1.4	(1.1, 1.7)
Threat of severe long-term disability	1.9	(1.6, 2.3)
Trouble accessing health services	1.8	(1.3, 2.5)

SUMMARY



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	Mobility 41%	Self-care 24%	Us. Activ 54%	Pain/Dis 69%	Anx/Dep 23%
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Pre-injury characteristics

Female	1.3	1.4	1.5	1.5	1.2
25-44 yrs	1.3	1.2	1.1	1.6	1.1
45-64 yrs	1.6	1.7	1.2	1.5	1.3
Chonic c ⁿ	1.5	–	1.4	1.4	1.6

Injury-related characteristics

Adm hosp	1.6	1.7	1.7	1.4	1.4
Threat life	1.5	1.6	1.4	–	1.9
Threat dis	1.5	1.4	1.4	1.9	1.5
Access	1.8	1.7	2.0	1.8	1.8

ACKNOWLEDGEMENTS



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Co-investigators: John Langley, Gabrielle Davie, Shanthi Ameratunga, Brendan Hokowhitu, Paul Hansen, Emma Wyeth & Rebecca Lilley

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