

Health Status after Motor Vehicle Accidents: Results from a survey in Queensland

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Introduction

- Self-rated health is an established marker of general health status and predicts long term morbidity and mortality.
- After Motor Vehicle Accidents, patients experience challenges with self-efficacy and return to work that extend well beyond the immediate time frame of discharge from acute health care.
- There is an abundance of literature on health during Acute Care or while receiving Rehabilitation after trauma. Information on long-term health status after Motor Vehicle Accidents for patients within the community, especially in Australia however is limited.
- In this context, we examined factors associated with general health status after Motor Vehicle Accidents from a survey of community dwelling Compulsory Third Party (CTP) insurance claimants in Queensland, Australia.

Purpose

Examine the association between demographic, injury related variables and general health status as assessed by responses to questions based on dimensions (i.e. health states) of the EuroQol-5D (EQ-5D).

Methods

Study Population

- Participants from a survey conducted by the Centre of National Research on Disability and Rehabilitation Medicine (CONROD), Griffith University and the Motor Accident Insurance Commission (MAIC).
- Mail-in-surveys distributed to a random sample of 2500 claimants. Criteria for inclusion: age ≥ 18 years, completion of claim payments and non-critical injuries (fatalities, AIS categories 5 & 6 excluded).
- Responses were returned within 2 months, a draw for a \$500 shopping voucher was provided as incentive.
- A total of 426 responses (17%) were received. Those with unusable information (n=216), missing IDs (n=1) and non-specific injuries (n=4) were additionally excluded. Final analytic sample comprised of 205 participants (8.2%).

Methods

Study Variables

- We examined age, gender, marital status, country of birth, spoken language, education level, employment status, income, injury severity, time since injury and whether participants received funded rehabilitation care.

Outcomes: EuroQol-5D (EQ-5D) Health States

- Responses to the 3-level EQ-5D health states including: Mobility, Self-Care, Usual Activities, Pain or Discomfort and Anxiety or Depression.

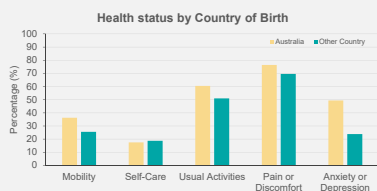
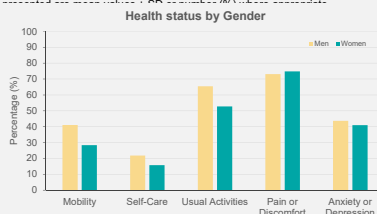
Results

Table 1. Descriptive characteristics of the sample*

Variables	Sample (N=205) Mean \pm SD or N (%)
Age, years	48.4 \pm 14.2
Gender	
Men	78 (38.1%)
Women	127 (61.9%)
Marital Status	
Single/Never Married	33 (16.1%)
Married/De facto	129 (62.9%)
Separated/Divorced/Widowed	43 (21.0%)
Spoken Language	
From English speaking country	180 (87.8%)
From Non-English speaking country	23 (11.2%)
Employment status	
Unemployed	81 (39.5%)
Employed	122 (59.5%)
Abbreviated Injury Scale categories	
Minor injuries	160 (78.0%)
Moderate injuries	33 (16.1%)
Serious/Severe injuries	12 (5.9%)
Time since Accident, years	3.4 \pm 1.3
Received Rehabilitation Care	
Yes	117 (57.1%)
No	71 (34.6%)
Mobility	
No Problems with Mobility	137 (66.8%)
Have problems with Mobility	68 (33.2%)
Self-Care	
No Problems with Self-Care	166 (81.0%)
Have problems with Self-Care	37 (18.1%)
Usual Activities	
No Problems with Usual Activities	86 (41.9%)
Have problems with Usual Activities	118 (57.6%)
Pain or Discomfort	
No Pain or Discomfort	51 (24.9%)
Have Moderate to Extreme Pain or Discomfort	152 (74.1%)
Anxiety or Depression	
No Anxiety or Depression	119 (58.0%)
Have Anxiety or Depression	86 (41.9%)
EQ-5D, 3 level Index	0.77 \pm 0.18

*Data

*stats



Results

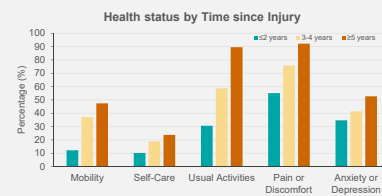
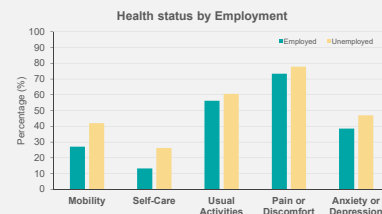


Table 2. Association between participant factors and health states

Participant Factor	Odds Ratio(95% CI) or Mean \pm SE [†]
Problems with Mobility	
Gender	
Men	1 (referent)
Women	0.42 (0.20, 0.89)
p-value	0.02*
Employment status	
Employed	1 (referent)
Unemployed	2.35 (1.13, 4.89)
p-value	0.02*
Time since injury, years	1.50 (1.13, 2.00)
p-value	0.005*
Problems with Self-Care	
Employment status	
Employed	1 (referent)
Unemployed	2.90 (1.22, 6.88)
p-value	0.01*
Time since injury, years	1.38 (1.01, 1.88)
p-value	0.04*
Problems with Usual Activities	
Time since injury, years	2.38 (1.68, 3.38)
p-value	<0.0001*
Pain or Discomfort	
Time since injury, years	1.89 (1.31, 2.73)
p-value	0.0007*
Anxiety or Depression	
Country of Birth	
Australia	1 (referent)
Other countries	0.33 (0.15, 0.71)
p-value	0.0005*
Employment status	
Employed	1 (referent)
Unemployed	1.93 (0.97, 3.86)
p-value	0.06
Time since injury, years	1.35 (1.03, 1.77)
p-value	0.03*
EQ-5D index (3-level)	
Employment status	
Employed	0 (referent)
Unemployed	-0.10 \pm 0.03
p-value	0.0003*
Time since injury, years	-0.03 \pm 0.01
p-value	0.0009*

[†]Adjusted for age, gender, country of birth, education, employment, injury severity, time since injury and rehabilitation.

Conclusion

- Gender, country of birth, employment status and time since injury were associated with individual health states of the EQ-5D.
- Employment and time since injury were consistently associated with overall health status (EQ-5D index score).
- Future prospective studies with larger representative samples are required to confirm our findings.