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The impact of a traumatic hand injury on people who live in rural and remote locations.

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Target Audience

Occupational therapists and hand therapists working with clients who live in rural and remote areas.

Aim of research

To explore the impact of traumatic hand injury on the occupational performance of a population of people from a rural and remote area.

Rationale of research

Little is known about the impact that a traumatic hand injury has on people from rural and remote areas. This research explores the experience of people from rural and remote locations who have had a hand injury and how this impacts on their day to day lives. This research informs service development for hand injury rehabilitation and more general rehabilitation for people from rural and remote locations as well as providing a platform for further research.

Method

A postal survey was undertaken of all adult clients discharged from the hand therapy unit of a regional hospital to a rural and remote location in the past 3 years (n=199). The survey instrument incorporated the use of the Upper Extremity Functional Index and questions regarding the impact of injury on occupational performance areas. Analysis of surveys (n= 65) was done using SPSS software and descriptive statistics produced to characterise the sample. Analysis of open ended responses was done using a thematic analysis of the content.

Findings / Results

Results from returned surveys (n=65) will be examined and broader implications for service delivery to people from rural and remote locations drawn.

Ethical Approval Qld Health HREC (Protocol Number 14/07) and JCU Ethics Committee (H2697)

Conclusion

This study has provided initial data which is informing further research into and therapy intervention and service design.

Learning Outcomes

Participants will acquire information regarding the impact of a traumatic hand injury on people from rural and remote locations.

Participants will generalise information provided to service provision to this population

The impact of a traumatic hand injury on people who live in rural and remote locations:

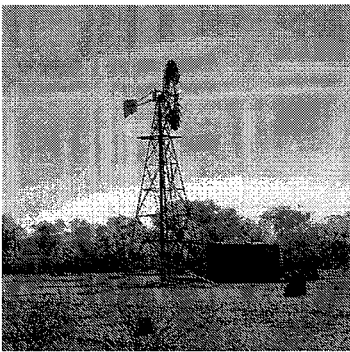
G. Kingston, B. Tanner, M. Gray.

The Townsville Hospital and James Cook University, Townsville

INTRODUCTION

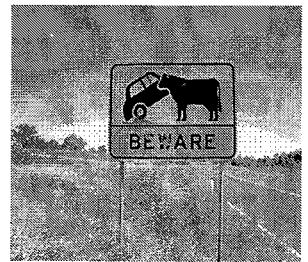
The use of our hands is synonymous with function, productivity and autonomy. ¹ For people employed in 'rural' occupations such as farming, mining, forestry and fishing, the risk of serious hand injury is particularly prominent. ² Falls from animals, motorcycles and farm injury are particularly common in these professions. ³ Travelling over long distances of country roads also increases the risk of injury. ⁴ Limited access to a treatment setting can also negatively impact on compliance with home exercise regimes ⁵ Poor compliance can result in development of secondary complications and a general failure of treatment outcomes. ⁶

Current literature generally surrounds issues relating to access, use of health care services and attitudes to health. Limited research examines how people in rural and remote locations function in daily tasks following a traumatic injury, particularly one to the hand.



RESEARCH QUESTIONS

- What is the impact of traumatic hand injury on a person's occupational performance in a rural and remote setting?
- What are the barriers in undertaking rehabilitation programs for people from a rural and remote location?



SURVEY RESULTS

- Most common injuries: tendon injuries, fracture, nerve injuries
- 90% of respondents reported ongoing stiffness, loss of strength and loss of movement
- Work (46%) and leisure (40.6%) most affected by the injury with moderate to extreme impact
- 38.5% report that things take longer to do
- 45% reported that the injury prevents them from doing chosen activities
- Difficult and expensive to get to appointments with hand therapist
- Minimal concerns noted with exercise program
- Open ended responses often contrary to quantitative data and provided greater insight into impact of injury

METHOD

Stage 1:

- Retrospective exploratory survey of adults (N=198) who attended hand therapy over a four year period (Jan 2003-Feb 2007) and who were living in a rural and remote location at time of injury
- 5-point Likert scales were used to measure perceived impact on occupational performance, interpersonal relationships, compliance and understanding of home exercise program and appointments with therapists.
- Standardised outcome measure: Upper Extremity Functional Index
- Opportunity for open ended responses was provided at the end of the survey

Stage 2:

- 15 qualitative interviews conducted throughout North Queensland.
- Participants chosen from survey respondents using purposeful sampling.
- Questions were developed from themes raised in survey: patient's experience of managing self care and domestic tasks, leisure, work and undertaking exercise regimes

INTERVIEW RESULTS

Emerging Themes:

Ongoing Impairment: "Its like somebody's driving knives into your hand. I just, honestly I just feel like getting it out on the anvil with a hammer and just bang"

Getting on with it: "if I can't do it nobody else is going to do it and you work out ways of getting around it"

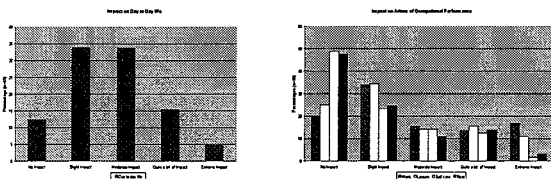
Modifying tasks: "Instead of the ordinary rope reins, they're probably about as thick as your little finger. One's I've got now probably as thick as your thumb. So I've got double the thickness to hand onto when I ride"

Access to specialist allied health: "It would be good even having a person visiting. They come and see, like, 15 people in a day rather than one person driving 5 hours round trip"

CONCLUSION

Quantitative measures fail to consider the influence of environmental factors on functional recovery and do not fully capture injury impact. The use of qualitative data to measure level of function is particularly important for rural and remote residents who may under report due to an identified 'stoicism'

Further research and focus is required on returning to work and adjustment in leisure following a traumatic hand injury for rural and remote residents



References

1. Meyer TM. Psychological aspects of mutilating hand injuries. *Hand Clin.* 2003;19(1):41-9.
2. Australian Institute of Health and Welfare. *Australia's health 2006: the tenth biennial health report of the Australian Institute of Health and Welfare.* Canberra, Australia: AIHW, 2006.
3. National Public Health Partnership. *The National injury prevention and safety promotion plan: 2004-2014.* Canberra, Australia: NPHSP, 2004.
4. Australian Institute of Health and Welfare. *Health in rural and remote Australia.* Canberra, Australia: AIHW, 1993.
5. Chen C, Neufeld PS, Faely CA, Skinner CS. Factors influencing compliance with home exercise programs among patients with upper-extremity impairment. *Am J Occup Ther* 1999;53(2):171-80.
6. Kirwan T, Tooth L, Harkin C. Compliance with hand therapy programs: therapists' and patients' perceptions. *J Hand Ther* 2002;15(1):31-40.