



Novice therapists in a developing context: *Extending the reach of hand rehabilitation*

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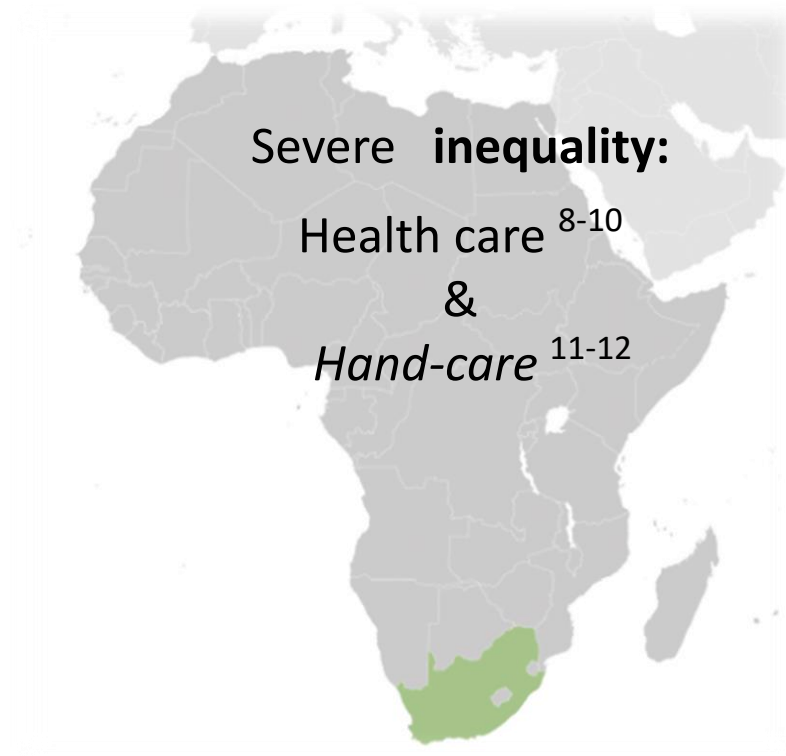




Introduction



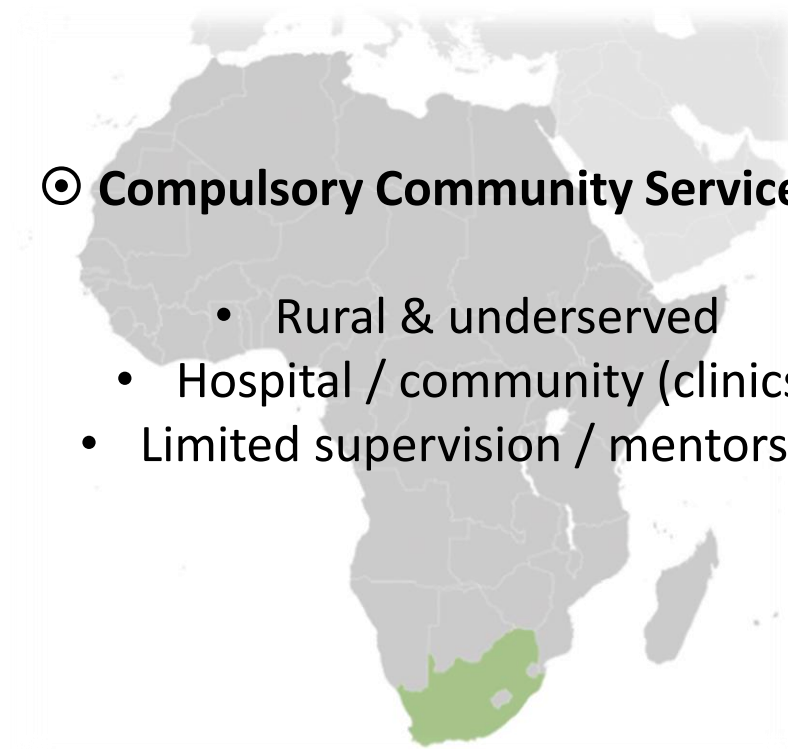
Introduction



Introduction

⦿ **Compulsory Community Service** ^{13,14}

- Rural & underserved
- Hospital / community (clinics)
- Limited supervision / mentorship



Objectives

- Hand rehabilitation **services** provided by novice occupational therapists in South Africa
- **Supports and barriers** for these services
- Therapists' perceptions of being **equipped** for hand rehabilitation



Method

- Descriptive cross-sectional
- Online questionnaire – all occupational therapists in first year of practice 2013 (n=240)
- Stata 12 & IBM SPSS Statistics 21.0
- Open-ended responses – post coded
- Ethical approval (UCT HREC: 551/2013)

Results

- 43.3 % response rate (n=104)
- 44.7% located rurally
- Median 3 sites (range: 0-26) serviced
- Supervision:
 - 89.6% had a supervisor
 - Median 1 hour supervision / month
 - 65.9% dissatisfied with supervision
- 73.9% communication difficulties

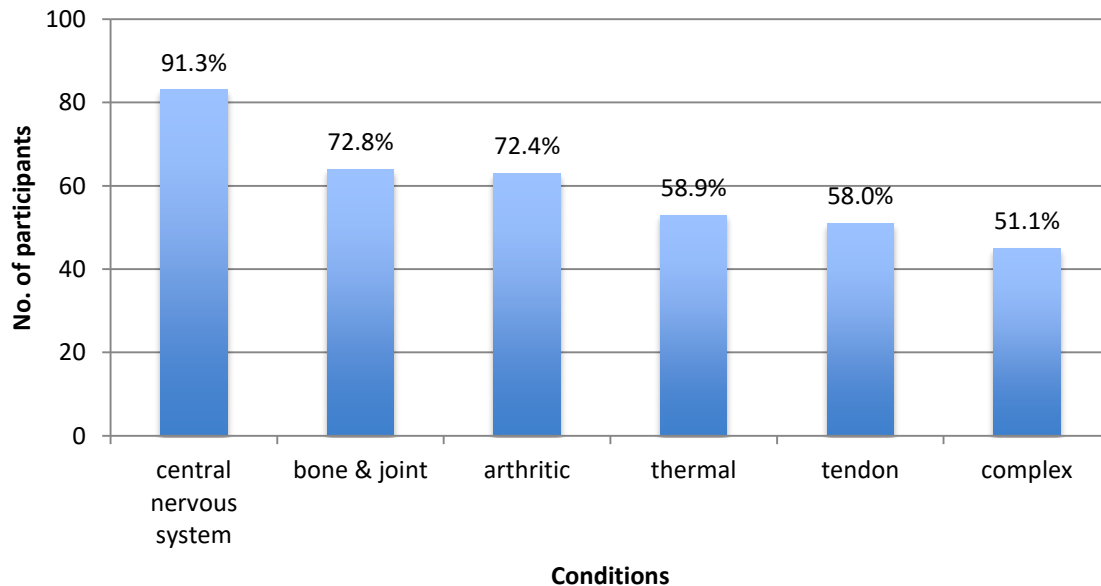
Results

- Satisfaction from interacting with clients (75.0%)
- Proud to be an occupational therapist (66.7%)
- Occupational therapy is poorly recognised (63.5%)
- Frustrated (58.3%)
- Challenged (54.2%)
 - “Hand injuries was thus far the most challenging field to work in as I never had an (fieldwork) blocks as a student to assist me with any physical injuries”*
- A need for specific knowledge in assessment & treatment (43.8%)
 - “In terms of hands, I would like more knowledge on treatment protocols in a setting where most hand injuries present very late, and surgery is usually not a realistic option”*



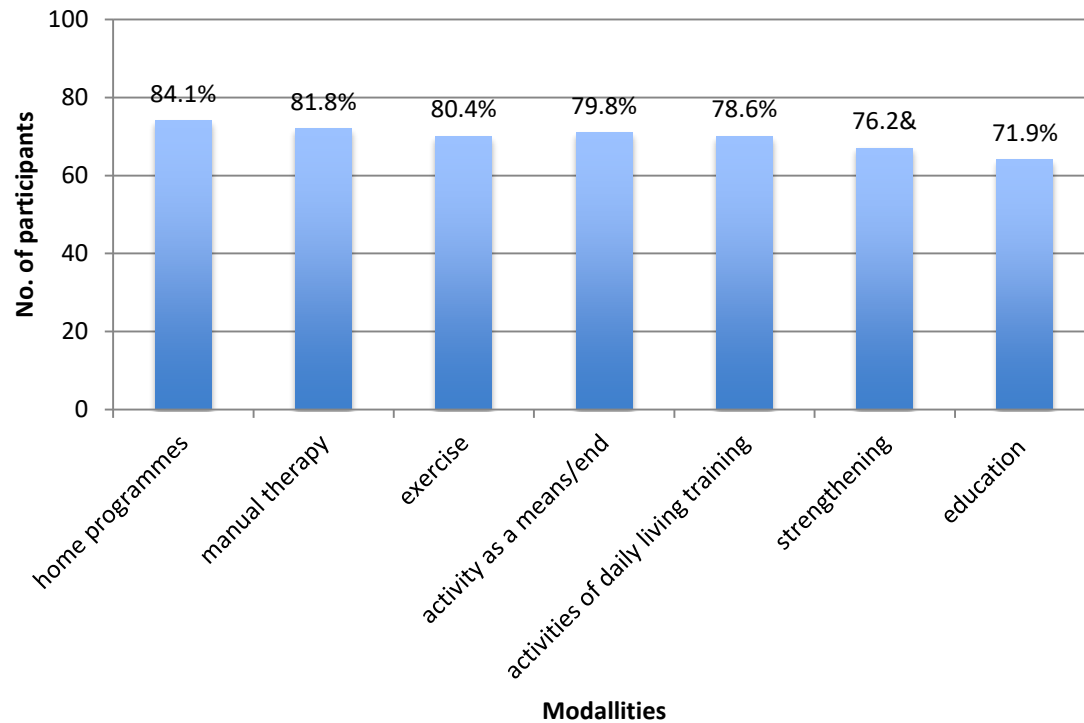
Results

- Median of 20 hand rehabilitation clients / month (Range: 0-225)
- Conditions treated *at least monthly* by >50%:



Results

Modalities used most frequently:



Results

Resources to support hand rehabilitation:

Resources	Yes (%)	No (%)
Access to a computer at work	70.5	29.5
Access to a telephone / fax at work	76.4	23.6
Access to the internet at work	30.3	69.7
Adequate equipment	27.0	73.0
Appropriate work area	65.2	34.8
Access to research / literature / evidence	44.8	55.2
Member of professional association	37.1	62.9
Mentor to guide professional development	40.2	59.8
Professional development opportunities	66.3	33.7
Sufficient undergraduate preparation	47.1	52.9
Sufficient supervision	32.6	67.4
Sufficient support at work	71.3	28.7



Results

Desired resources to support hand rehabilitation practice:

- Continuous professional development courses (93.4%)
- Access to guidelines & protocols (86.8%)
- Regular support/supervision (83.5%)
- Improved undergraduate exposure (80.2%)



Results

Evidence to support practice:

- 44.8% access to up-to-date evidence
 - undergraduate education (93.4%)
 - textbooks (82.4%)
 - personal clinical experience (79.1%)
 - internet searches (75.8%)
 - advice from colleagues (69.2%)



Results

Descriptors of hand rehabilitation practice (*frequency*):

Descriptors	No. (%)
Fearful of harming my patient	38 (41.8)
Upper limb rehabilitation is a specialised area	59 (64.8)
I need to <i>learn by doing</i>	70 (76.9)
I am not confident	33 (36.3)
A heightened sense of responsibility	40 (44.0)
Overwhelmed	37 (40.7)
Enthusiastic	44 (48.4)

Results

Preparedness for practice:

- 50 competency areas
 - High levels of perceived preparedness
 - Majority *somewhat equipped/prepared*
- 78.9% level competence
- 64.4% level of confidence



Results

Competent

- *enjoy treating clients with hand conditions*
(AOR: 85.94, 95% CI:4.72-1564.58, p=0.003)
- *undergraduate fieldwork placement*
(AOR: 265.73, 95% CI:1.23 – 57548.30, p=0.042)

Confident

- *enjoy treating clients with hand conditions*
(AOR: 28.21, 95% CI:2.47-322.74, p=0.007)
- **adequate practical skill**
(AOR: 7.86, 95% CI:1.63-37.82, p=0.010)

Conclusion

- Demand for novice therapists in South Africa to deliver hand rehabilitation
- Conditions seen similar to other studies¹²
- Contextual features
 - equipment¹⁵⁻²¹
 - supervision/mentoring²²
 - communication difficulty²³⁻²⁴
 - CPD opportunities²⁵
 - access to evidence limited²⁶⁻³²
- Competent and Confident?³³⁻⁴⁰

Conclusion

- *Strengths & limitations*
- Specialist expertise cannot reach the greatest need
- Novice therapists providing services require:
 - experienced supervision
 - mentorship
 - CPD opportunities
- Strategic planning of *hand-care* services





References

1. Dias J and Garcia-Elias M. Hand injury costs. *Injury* 2006; 37: 1071-1077.
2. Dias J. Where does surgery for the injured hand figure in the health providers view: an international perspective. *Injury* 2006; 37: 1061-1065.
3. Statistics South Africa. Methodological report on rebasing of national poverty lines and development of pilot provincial poverty lines - Technical report. Statistics South Africa, 2015.
4. Norman, Bradshaw D, Schneider M, Pieterse D and Groenewald P. Revised Burden of Disease Estimates for the Comparative Risk Factor Assessment, South Africa 2000. 2006.
5. Jeebhay M and Jacobs B. Occupational health services in South Africa. In: Crisp N and Ntuli A (eds.) *South African Health Review 1999*. Durban: Health Systems Trust, 1999, 257-276.
6. Industrial Health Resource Group. Section 8: Compensation for injured and ill workers. In: Group IHR (ed.) *Organising for Health and Safety. A Guide for Trade Unions*. 2nd ed. Cape Town: Industrial Health Resource Group, 2011.
7. Schultz G, Mostert K and Rothmann I. Repetitive strain injury among South African employees: The relationship with burnout and work engagement. *Int J Ind Ergon* 2012; 42: 449-456.
8. Coovadia H, Jewkes R, Barron P, Sanders D and McIntyre D. The health and health system of South Africa: historical roots of current public health challenges. *The Lancet* 374: 9692, 2009. [http://dx.doi.org/10.1016/S0140-6736\(09\)60951-X](http://dx.doi.org/10.1016/S0140-6736(09)60951-X).
9. Department of Health. National Health Insurance in South Africa. Policy paper. Pretoria: Republic of South Africa Department of Health, 2011.
10. Statistics South Africa. Statistics South Africa. 2014; <http://beta2.statssa.gov.za/?s=GHS&site=publications>.
11. van Stormbroek K. *Hand-care for all: towards strategic conversations. The South African Society for Surgery of the Hand (SASSH) Congress*. Drakensburg 2015.
12. De Klerk S. *Occupational Therapy Assessment of the Upper Limb: Trends in South Africa*. Masters of Occupational Therapy, Stellenbosch University, South Africa, 2014.
13. Reid S. Community Service for health professionals: human resources. In: Ijumba P (ed.) *South African Health Review 2002*. Durban: Health Systems Trust, 2002, 135-160.
14. Reid SJ. Compulsory Community Service for doctors in South Africa - an evaluation of the first year. *S Afr Med J* 2001; 91: 329 – 335.
15. Gonlag J. City girl hits rural Mpumalanga. *Focus*, 2009; 1: 9.
16. Millan F. Community service news. *Focus*, 2012; 3: 38-9.
17. Roane B. Reflections. *Focus*, 3: 25-6.
18. Roux M. Community service experience. *Focus*, 2012; 1: 20.
19. Stanton S and De Villiers C. What a year for the Walmer girls. *Focus*, 2010; 1: 12-3.
20. Sweidan L. What I've learnt. *Focus*, 2009; 1: 8.
21. Tauby M. My community service experience. *Focus*, 2009; 3: 19.
22. Kingston GA, Judd J and Gray MA. The experience of medical and rehabilitation intervention for traumatic hand injuries in rural and remote North Queensland: a qualitative study. *Disability & Rehabilitation*, 2015; 37: 423-9.
23. Benjamin E, Swartz L, Hering L and Chiliza B. Language barriers in health: lessons from the experiences of trained interpreters working in public sector hospitals in the Western Cape. In: Padarath A, King J, Mackie E and Casciola J, (eds.). *South African Health Review 2016*. Durban: Health Systems Trust, 2016: p. 73-81.
24. Penn C. Factors affecting the success of mediated medical interviews in South Africa. *Current Allergy & Clinical Immunology*, 2007; 20: 66-72.
25. South African Society of Hand Therapists. <http://www.sasht.org.za/Provisional%20Year%20Planner%202017%20v4.pdf> (accessed 25 April 2017).
26. Bennett S, Tooth L, McKenna K, et al. Perceptions of evidence-based practice: a survey of Australian occupational therapists. *Australian Occupational Therapy Journal*, 2003; 50: 13-22.
27. Copley J and Allen S. Using all the available evidence: perceptions of paediatric occupational therapists about how to increase evidence-based practice. *International Journal of Evidence-Based Healthcare*, 2009; 7: 193-200.
28. Salls J, Dolhi C, Silverman L and Hansen M. The use of evidence-based practice by occupational therapists. *Occupational Therapy in Health Care*, 2009; 23: 134-45.
29. Buchanan H. Evidence-based practice in occupational therapy in South Africa and the Western Cape. *Department of Health and Rehabilitation Sciences*. Cape Town: University of Cape Town, 2011.
30. MacDermid J. An introduction to evidence-based practice for hand therapists. *Journal of Hand Therapy*, 2004; 17: 105-17.
31. Stagnitti K. Occupational therapy practice in rural and remote South Australia. *The Australian Journal Of Rural Health*, 2008; 16: 253-4.
32. Lannin N and Longland S. Critical shortage of occupational therapists in rural Australia : Changing our long-held beliefs provides a solution. *Australian Occupational Therapy Journal*, 2003; 50: 184-7.





References

33. Frampton V. Hand therapy education: A global perspective. Journal of Hand Therapy, 1998; 11: 239-43.
 34. American Society of Surgery of the Hand (ASSH). "Hand therapy". <<http://www.assh.org/handcare/What-is-a-Hand-Therapist>> (accessed 25 April 2017).
 35. Davis D, Mazmanian P, Fordis M, Van Harrison R, Thorpe K and Perrier L. Accuracy of physician self-assessment compared with observed measures of competence. Journal of the American Medical Association, 2006; 296: 1094-102.
 36. Dimick M, Caro C, Kasch M, et al. 2008 Practice Analysis Study of Hand Therapy. Journal of Hand Therapy, 2009; 22: 361-75.
 37. Gordon Training International. "Learning a new skill is easier said than done". 2016. <www.gordontraining.com/free-workplace-articles/learning-a-new-skill-is-easier-said-than-done/> (accessed 7 November 2016).
 38. Wainwright S, Shepard K, Harman L and Stephens J. Novice and experienced physical therapist clinicians: a comparison of how reflection is used to inform the clinical decision-making process. Physical Therapy, 2010; 90: 75-88.
 39. Dreyfus H and Dreyfus S. Mind over Machine, the Power of Human Intuition and Expertise in the Era of the Computer. New York: The Free Press, 1986.
 40. Benner P. Using the Dreyfus model of skill acquisition to describe and interpret skill acquisition and clinical judgment in nursing practice and education. Bulletin of Science, Technology & Society, 2004; 24: 188-99.
- Africa Image: <https://www.drivingdirectionsandmaps.com/wp-content/uploads/country-locator/sf-locator-map.gif> . Accessed 8 May 2018.

