Assessment of Rehabilitation Capacity in Ghana

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Disclosures

I have received payment from Ipsen pharmaceuticals for consultative work.

I will not be discussing any Ipsen product.
Learning Objectives

1. Appreciate the need for Global Rehabilitation Medicine
2. Medical Rehabilitation Capacity in Ghana
Background

- Rehabilitation Medicine
  - Function, quality of life, improve health systems
- 1 billion disable around the world
  - 80% live in low resource countries
- Sub-Saharan Africa
  - 156 million
- Disease and Disability burden
  - 24% disease burden, 3% health workers, 1% healthcare expenditure
Background

- Limited data on Rehab Capacity
  - Infrastructure, human, interventions
  - Quality of service, education
- A forsaken Global Health issue
  - Trauma related disability, cardiovascular, cerebrovascular disease
- Global Rehab capacity
  - limited, fragmented, inconsistencies
Background

- 2011 *World Report on Disability (WDR)*
  - Policy Change; CBR to Medical Rehabilitation
  - Govt. to expand comprehensive rehabilitation
  - Multidisciplinary Rehabilitation care

- For this to be implemented
  - A Need assessment to inform policy makers
Background

- Sub-Saharan Rehab workforce
  - 6 physiatrist
  - 4169 Occupational therapist
  - 0.1 per 100,000 Physical therapist in Ghana, 6.7 per 100,000 in South Africa
- Other Allied health
  - 0.04 per 100,000 Social workers
  - 0.04-0.06 per 100,000 Rehab psychologist
Objective:
Assessment of Rehab Capacity in Ghana

- Pilot an assessment tool for capacity of Rehabilitation care in Ghana
  - Infrastructure, human resources, interventions provided
- Create a standardize tool for assessing rehabilitation care in resource constraints areas
- Accurate assessment of met and unmet rehabilitation needs
Background

- Ghana: Black star of Africa
  - 24.97 million people
  - GDP of $39 billion, 4.8 of GDP on Healthcare
- Estimated 3.75 million persons with disability
  - No medical rehabilitation, PT only, no inpatients
- Rehabilitation Capacity
  - Rehabilitation planning
### Sampling Selection

- Across the country, easily accessible by transport
- Record keeping

### Settings

- 9 Physiotherapist centers in Ghana
- Tema General Hospital (Greater Accra Region)
- Ashanti Mampong Municipal Hospital (Ashanti Region)
- Sunyani Regional Hospital (Brong Ahafo region)
- Koforidua Regional Hospital, Teteh-Quashi Memorial Hospital, and Begoro Rehabilitation Center (Eastern Region)
- Effia Nkwanta Regional Hospital (Western Region)
- Cape Coast Regional Hospital (Central Region)
- Tamale Teaching Hospital (Northern Region)
Methods

• Interview Process
  • A modified Situational Analysis Tool for Assessment of Essential Comprehensive Rehabilitation Care (ECRC) was developed
• 11 Page Questionnaire
  • Infrastructure, human resource, interventions
• To be completed by those of in charge of the PT centers
• Lesson from the surgical world
### Section B: Human Resources

<table>
<thead>
<tr>
<th></th>
<th>Number of Full Time Workers</th>
<th>Number of Part Time Workers</th>
<th>Number Certified/Registered/Licensed</th>
</tr>
</thead>
<tbody>
<tr>
<td>Surgeons (qualified)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Anaesthesiologist Physician (qualified)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Obstetrician/gynecologist (qualified)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>General doctors providing surgery</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>General doctors providing anesthesia</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### Section C: Interventions - Do you provide these procedures?

<table>
<thead>
<tr>
<th>Procedure</th>
<th>Yes / No</th>
<th>Do you refer?</th>
<th>Refer due to lack of skills</th>
<th>Refer due to non-functional equipment</th>
<th>Refer due to lack of Supplies/Drugs</th>
</tr>
</thead>
<tbody>
<tr>
<td>Resuscitation (airway, hemorrhage, peripheral percutaneous intravenous access, peripheral venous cut down)</td>
<td>yes</td>
<td>no</td>
<td>yes</td>
<td>yes</td>
<td>yes</td>
</tr>
<tr>
<td>Cricothyroidotomy / Tracheostomy</td>
<td>yes</td>
<td>no</td>
<td>yes</td>
<td>yes</td>
<td>yes</td>
</tr>
</tbody>
</table>
Results

• Infrastructure
  • 5 out of 9 centers were Regional Hospital
  • 1 inpatient rehabilitation center/Pediatric rehab
    • Begoro Salvation Army
  • Funded by Ghana Ministry of Health
  • Centers were built by Enfra Nonius Dutch grant
Results

- **Infrastructure**
  - 1 center to serve 735,545 person
  - Pt seen/yr 400-295000
  - 2 have aquatic therapy
  - Travel distance to centers 63Km(20-200Km)

- 42 physiotherapy centers
  - 22 in Ashanti and Accra
Results

Human Resources

- no PM&R doctors, rehab psychologists, recreational therapist, in country
- 1 OT, no SLP in our sample
- 1 rehab nurse, 1 prosthetics in our sample
- 7 lack a social worker

39 PT’s identified in our study to serve 6.6million people
Results

• Intervention
  • Stroke Rehab: 100%
  • Spinal cord injury: 90%
  • TBI Rehab: 50%
  • MSK: 70%
  • Pediatric Rehab: 80%
  • Medical Rehab: 60%
  • Amputations: 90%
Discussion

• Summary
  • First study proposing the need to create a standardize tool for comprehensive rehabilitation in Africa
  • First study looking at capacity of a nation to provide ECR
    • Human resources
  • Significant deficiencies in infrastructure, humans resources, and ability to provide comprehensive rehabilitation
  • Use of assessment tool feasible in local environment
Study Weakness

- Small sample size (9 out of 42 centers)
  - But represent 26% of Ghana Population
- Bigger centers (Accra and Kumasi) not survey
- 5 Regional hospital
- No post-analysis of ease of answering survey
  - Some questions might not be appropriate in the environment
  - Some questions were not responded to
- The tool proposed has not be validated
  - We don’t have one yet
Recommendations

- Essential Comprehensive Rehabilitation is cost-effective and saves lives
  - Need most is places where resources are limited
  - Implications of its absence are colossal
  - Ghana Ministry of Health and external bodies should invest in comprehensive rehabilitation

- WHO should support this initiative to make Rehabilitation needs a Global Health priority
Current Rehabilitation State

• The creation of Physical Medicine and Rehabilitation program in Ghana
• Policy and Proposal
• Rehabilitation Medicine at KATH
Rehabilitation Fellowship in Ghana

- Name of program?
- Dr. Abena Tanor and Dr. Tesfaye
- A two year curriculum approve by the Ghana Medical board
- Fellowship
  - Local leadership and ownership
  - Clinical experience
  - Blue jeans platform
<table>
<thead>
<tr>
<th>Fellowship training con’t</th>
</tr>
</thead>
<tbody>
<tr>
<td>Musculoskeletal medicine</td>
</tr>
<tr>
<td>Stroke rehabilitation</td>
</tr>
<tr>
<td>Traumatic brain Injury rehabilitation</td>
</tr>
<tr>
<td>Trauma rehabilitation</td>
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<tr>
<td>Spinal cord injury rehabilitation</td>
</tr>
<tr>
<td>Vocational rehabilitation</td>
</tr>
<tr>
<td>Pediatric rehabilitation</td>
</tr>
<tr>
<td>Amputee care</td>
</tr>
<tr>
<td>Pain management</td>
</tr>
</tbody>
</table>
Fellowship

- In and out training
  - Ghana, US, Europe, Asia, Ethiopia
  - KATH, Nsawam, others
- Ghana Rehab Mission visit to KATH
  - Clinical management
  - Workshop
  - Policy and advocacy management
  - WHO and global presence and advocacy
- Dr. Abena Tannor visit to Good Shepherd Rehab
  - Inpatient rehabilitation training
  - Outpatient clinic
  - w/c clinic and technology ad
Ghana Rehab Mission

• Clinic with team
• Inpatient workshop and nurses training
• Policy and advocacy
  • Medical rehabilitation proposal
Ghana rehab mission
Fellowship barriers

- Local support and priority
  - Value of Physical medicine and rehabilitation
  - Human behavior and culture

- Outside support
  - No funding, volunteer based
  - International Rehab Forum
  - Ghana Rehab Mission
Conclusion
Conclusion

• A comprehensive rehabilitation program is needed in Ghana
• Effort to support such initiatives are needed
Thank You

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