HKSR 60th Anniversary Symposium and Workshops

“New Perspectives on Holistic Rehabilitation and Social Inclusion towards 2030”

28 - 29 March 2019

Key Challenges and Solutions to Holistic Health and Rehabilitation Care in Hong Kong

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Key Challenges and Solutions to Holistic Health and Rehabilitation Care in Hong Kong

From the perspective of health and social sciences/allied health professionals

Prof. David Shum
28 March 2019
Holistic Health

(World Health Organization, 1997)

Rehabilitation

(World Health Organization, 2011)

A set of measures that assist individuals, who experience or are likely to experience disability, to achieve and maintain optimum functioning in interaction with their environments.

Enables people with limitations in functioning to remain or return to their home or community, live independently, and participate in education, the labour market and civic life.
Challenges

- Aging population
- Chronic diseases and disabilities
- Stressful lifestyle and mental health issues
- Access to rehabilitation services
- Proliferation of health and rehabilitation information
- Good-quality local research
- Adherence to treatment
Aging population

Global health life expectancy (HALE) (1990 – 2016)

- Increased from 56.9 to 63.1 years


HK Expectation of life at birth:

- Males: 81.9 years
- Females: 87.6 years
Ageing population

(Hospital Authority, 2017; Census and Statistics Department, 2015)

- Chance of being hospitalized: 4 times
- Bed utilization rate:
  - Aged ≥ 65: 9 times
  - Aged ≥ 85: 20 times
- Cost of services: 46%
- Chronic disease:
  - Aged ≥ 60: 63.8%
  - Aged ≥ 65: 51.5%
Chronic disease and disabilities

(Census and Statistics Department, 2015)
Stressful lifestyle and mental health issues

- Work oriented culture
  - Extraordinarily long working hours
  - Poor work life balance
- Sedentary work style and lack physical activities
- Vulnerable to mental health issues
- Poor stress coping
- Unwilling to seek psychiatric or psychological help
- Stigma associated with mental health problems
Access to rehabilitation services

(Department of Health, 2018; Food and Health Bureau, 2018)

Registered Healthcare Professionals (End 2017)

<table>
<thead>
<tr>
<th>Type of Professional</th>
<th>Total</th>
<th>Healthcare Professionals to Population*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Doctors</td>
<td>14,290</td>
<td>1 : 519</td>
</tr>
<tr>
<td>Chinese medicine practitioners</td>
<td>7,425</td>
<td>1 : 998</td>
</tr>
<tr>
<td>Registered Chinese medicine practitioners</td>
<td>38</td>
<td>1 : 998</td>
</tr>
<tr>
<td>Chinese medicine practitioners with limited registration</td>
<td>2,623</td>
<td>1 : 2,825</td>
</tr>
<tr>
<td>Listed Chinese medicine practitioners</td>
<td>2,500</td>
<td>1 : 2,964</td>
</tr>
<tr>
<td>Dentists</td>
<td>443</td>
<td>1 : 16,734</td>
</tr>
<tr>
<td>Nurses</td>
<td>54,231</td>
<td>1 : 137</td>
</tr>
<tr>
<td>Midwives</td>
<td>4,611</td>
<td>1 : 1,607</td>
</tr>
<tr>
<td>Pharmacists</td>
<td>2,753</td>
<td>1 : 2,692</td>
</tr>
<tr>
<td>Medical laboratory technologists</td>
<td>3,567</td>
<td>1 : 2,077</td>
</tr>
<tr>
<td>Occupational therapists</td>
<td>2,070</td>
<td>1 : 3,580</td>
</tr>
<tr>
<td>Physiotherapists</td>
<td>3,091</td>
<td>1 : 2,397</td>
</tr>
<tr>
<td>Optometrists</td>
<td>2,198</td>
<td>1 : 3,371</td>
</tr>
<tr>
<td>Radiographers</td>
<td>2,293</td>
<td>1 : 3,231</td>
</tr>
<tr>
<td>Chiropractors</td>
<td>218</td>
<td>1 : 33,990</td>
</tr>
</tbody>
</table>

Number of Allied Health (Outpatient) Attendances (2013-14 to 2017-18)

<table>
<thead>
<tr>
<th>Year</th>
<th>Number of Attendances</th>
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<tbody>
<tr>
<td>2013-14</td>
<td>2,329,162</td>
</tr>
<tr>
<td>2014-15</td>
<td>2,428,470</td>
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<tr>
<td>2015-16</td>
<td>2,531,869</td>
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<tr>
<td>2016-17</td>
<td>2,704,572</td>
</tr>
<tr>
<td>2017-18</td>
<td>2,745,545</td>
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</table>
Proliferation of health and rehabilitation information

- The internet is full of health and rehabilitation information
- Difficult to keep up with advances and developments
- Research are different in terms of quality and conclusions
- Predatory journals are publishing research without due review process
Proliferation of health and rehabilitation information

MINIREVIEW – Professional Development

Due diligence in the open-access explosion era choosing a reputable journal for publication

Yondell Masten\textsuperscript{4} and Alyce Ashcraft

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One sentence summary: Faculty, researchers, scientists, and professionals need to ensure scholarly work is submitted to reputable vs. predatory open-access publishers for publication.

Editor: Beatriz Fahmert

\textbf{Table 1. Five-year increase in predatory publishers (Beall 2016; Narmani and Dadkhah 2017)}

<table>
<thead>
<tr>
<th>Year</th>
<th>Number of publishers</th>
</tr>
</thead>
<tbody>
<tr>
<td>2011</td>
<td>18</td>
</tr>
<tr>
<td>2012</td>
<td>23</td>
</tr>
<tr>
<td>2013</td>
<td>225</td>
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<tr>
<td>2014</td>
<td>477</td>
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<tr>
<td>2015</td>
<td>693</td>
</tr>
<tr>
<td>2016</td>
<td>923</td>
</tr>
</tbody>
</table>
Good-quality local research

• More research for basic and biomedical sciences than rehabilitation research
• Low success rate for research grant applications
• Not enough research personnel
• Not enough local research to replicate research conducted in the west
• Lack of world class rehabilitation institute/infrastructure
Adherence to treatment

The extent to which a person’s behavior—taking medication, following a diet, and/or executing lifestyle changes—corresponds with agreed recommendations from a health care provider.

50% of patients with chronic illness did not take medication as prescribed

- World Health Organization, 2003
Adherence to treatment

Factors affecting adherence:
- Patients characteristics
- Treatment provider characteristics
- Environmental characteristics
- Treatment Accommodation

Examples of Treatment Characteristics Associated With Adherence
- Deviation required from the normal routine
- Level of compliance necessary for sufficient improvement
- Adverse side effects of medication
- Amenity to assistive technology
- Aversive tasks in administering treatment
- Technical skills needed
- Complexity of treatment regimen
- Duration of treatment administration
- Face validity of treatment
- Self-awareness needed to implement treatment
- Level of noticeable improvement
- Acute versus chronic treatment
- Cumbersome equipment
Solutions

- Primary Healthcare Initiatives
- Interdisciplinary rehabilitation
- Promoting holistic health
- Health technology
- Evidence-based practice
- Good quality local research
- Adherence to treatment
Primary Healthcare Initiatives

• Community Health Centres (CHCs)
  • Located in Tin Shui Wai, North Lantau and Kwun Tung
  • Aimed at reducing the need for hospitalization
  • Multi-disciplinary healthcare services for patients with chronic diseases
    • Medical consultation
    • Health risk assessment
    • Specific care services
Primary Healthcare Initiatives

- District Health Center in Kwai Tsing (3rd Q, 2019)
- Ease burden of ageing population and chronic disease (hypertension, diabetes, obesity) on public hospitals
- Health promotion, assessment, chronic disease management, and community rehabilitation

**South China Morning Post**

Health & Environment

**Fast-ageing Hong Kong district Kwai Tsing to test drive subsidised health care plan**

Community hub first of planned network to be rolled out across city's 18 districts as officials look to ease burden on public hospitals

**Topic | Hong Kong health care and hospitals**
Interdisciplinary rehabilitation

Healthcare professionals from different fields meet regularly in order to discuss and collaboratively set treatment goals for the patients and jointly carry out the treatment plans.

- Korner, 2010
Interdisciplinary rehabilitation

Evidence-Based Clinical Practice Guidelines for Interdisciplinary Rehabilitation of Chronic Nonmalignant Pain Syndrome Patients

Steven H. Sanders, PhD*; R. Norman Harden, MD†; Peter J. Vicente, PhD‡

*Siskin Hospital’s Center for Pain Rehabilitation, Chattanooga, Tennessee; †Rehabilitation Institute of Chicago Center for Pain Studies, Chicago, Illinois; ‡LoDo Pain and Headache Clinic, Denver, Colorado, U.S.A.

© 2005 World Institute of Pain, 1530-7085/05/$15.00
Pain Practice, Volume 5, Issue 4, 2005 303–315

Improve physical function

Improve general function

Increase pain self-management

Improve vocational/ disability status

Reduce used of sedation

Reduce health care chronic pain

Reduce pain level
Promoting holistic health

• Address not just physical but also psychological, social and spiritual well being
• Person centred and empowerment
• Look after and involve carers
• Acceptance, affection, autonomy, alliance, active participation (Skinner & Cradock, 2000)
Promoting holistic health

Original Study

Use of a Robotic Seal as a Therapeutic Tool to Improve Dementia Symptoms: A Cluster-Randomized Controlled Trial

Wendy Moyle PhD a,b,*, Cindy J. Jones PhD a,b, Jenny E. Murfield BSc(Hons) a,b, Lukman Thalib PhD c, Elizabeth R.A. Beattie PhD d, David K.H. Shum PhD a,c, Siobhan T. O'Dwyer PhD a,f, M. Cindy Mervin PhD a,g, Brian M. Draper MD h

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d School of Nursing, Queensland University of Technology, Kelvin Grove, Brisbane, Queensland, Australia
e School of Applied Psychology, Mt Gravatt Campus, Griffith University, Brisbane, Queensland, Australia
f Medical School, University of Exeter, Exeter, United Kingdom
g Center for Applied Health Economics, School of Medicine, Nathan Campus, Griffith University, Nathan, Brisbane, Queensland, Australia
h School of Psychiatry, University of New South Wales, Sydney, Australia
Health Technology

• Biomedical Engineering
• Bionics
• Neurofeedback and neurotraining
• Virtual Reality
• Telehealth
• Robotics
Health Technology – Healthcare Assistive Robot

*Industry Trends*

Healthcare assistive robot market size was valued at USD 359.1 million in 2017 and is expected to witness 19.3% CAGR from 2018 to 2024.

Evidence-based practice

• Education and professional development
  • Predatory journals
  • CONSORT statement about RCT
  • Sources of trusted information

• Promote evidence-based practice
  • Systematic review and meta-analysis
  • Cochrane Review
Evidence-based practice

**CONSORT 2010**

The CONSORT (CONsolidated Standards of Reporting Trials) 2010 guideline is intended to improve the reporting of parallel-group randomized controlled trial (RCT), enabling readers to understand a trial’s design, conduct, analysis, and interpretation, and to assess the validity of its results. This can only be achieved through complete adherence and transparency by authors.

CONSORT 2010 was developed through collaboration and consensus between clinical trial methodologists, guideline developers, knowledge translation specialists, and journal editors (see CONSORT group). CONSORT 2010 is the current version of the guideline and supersedes the 2001 and 1996 versions. It contains a 25-item checklist and flow diagram, freely available for viewing and downloading through this website.

Extensions of the CONSORT Statement have been developed for different types of trial designs, different interventions, and different types of data.

**STROBE Statement**

Strengthening the reporting of observational studies in epidemiology

**STROBE checklists**

- STROBE checklist for cohort, case-control, and cross-sectional studies (combined) download PDF / Word
- STROBE checklist for cohort studies download PDF / Word
- Checklist for case-control studies download PDF / Word
- Checklist for cross-sectional studies download PDF / Word
- Draft STROBE checklist for conference abstracts download PDF

**Cochrane**

Good quality local research

• Lobby for more research funding for the rehabilitation area
• Actively recruit the next generation of rehabilitation researcher
• Fund innovative local research and fund local research to validate research conducted in the west
• Conduct long-term follow up research
• Build a world-class rehabilitation research institute
Adherence to treatment

• More research to understand the extant of problem (e.g., memory, motivation, support from environment)
• More research to evaluate the efficacy of various techniques to promote adherence to treatment
• Take adherence to treatment into consideration when planning and delivering rehabilitation
Conclusion

1. Many big challenges at different levels
2. Need input from various stakeholders
3. Despite these challenges, there are some possible solutions:
   - Primary healthcare initiatives
   - Interdisciplinary rehabilitation
   - Address psychological, spiritual and social well-being
   - Research
   - Health technology