Abstract:

Topic title: Brain-Mind-Behaviour related health problem in the northern part of Thailand

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Abstract:

The big three of brain-mind-behavior related health problems in the northern part of Thailand are CNS infection (mostly are HIV related, Tuberculosis and meningitis), mental and substance use disorders and thirdly is dementia. Nevertheless post traumatic brain injury syndrome is also increasing and needs more research in epidemiology.

Infectious diseases still impose a great burden on global public health, including the health of Thailand's population. Evidence-based decision making in health requires reliable information on the characteristics of the infectious disease burden in a country.

In 2009, there were almost 971 000 disability-adjusted life-years (DALYs; 10% of total DALYs) due to infectious diseases in Thailand (n=10 207 438). In nearly all age groups, years of life lost made up a large share of DALYs (88%; n=854 904), except in children younger than 4 years (49%; n=18 825). More than half of total DALYs occurred in people aged between 30 and 59 years. HIV/AIDS, tuberculosis, and lower respiratory tract infection were very large causes of infectious disease burden, accounting for 4·3% (n=442 128), 1·4% (n=143 896), and 1·3% (n=134 881) of total DALYs, respectively. Most of the infectious disease burden has decreased in Thailand in recent decades, except for tuberculosis and meningitis, which showed stable trends.

Mental and substance use disorders were the leading cause of YLDs worldwide. In 2010, mental and substance use disorders accounted for 183.9 million DALYs (95% UI

153.5 million—216.7 million), or 7.4% (6.2—8.6) of all DALYs worldwide. Depressive disorders accounted for 40.5% (31.7—49.2) of DALYs caused by mental and substance use disorders, with anxiety disorders accounting for 14.6% (11.2—18.4), illicit drug use disorders for 10.9% (8.9—13.2), alcohol use disorders for 9.6% (7.7—11.8), schizophrenia for 7.4% (5.0—9.8), bipolar disorder for 7.0% (4.4—10.3), pervasive developmental disorders for 4.2% (3.2—5.3), childhood behavioural disorders for 3.4% (2.2—4.7), and eating disorders for 1.2% (0.9—1.5). DALYs varied by age and sex, with the highest proportion of total DALYs occurring in people aged 10—29 years. The burden of mental and substance use disorders increased by 37.6% between 1990 and 2010, which for most disorders was driven by population growth and ageing. No data is available from northern Thailand.

Thailand has been an ageing society with older persons constituting more than 10 percent of the population since 2002. One of the important chronic diseases of Thai elderly population is dementia. The contributions of dementia and mild cognitive impairment (MCI) to disability in Thai elderly are unknown. Determining the causes of disability as well as the role of dementia and MCI in producing disability has major public health implications. Planning resource use, assisting families to cope and understanding reversible causes of disability are important application of this information. Caregiver burden is also increasingly important. There have been several research on caregiver burden but the formal caregiver training program has not been established and research in this issue is still in need.

Post-Traumatic Brain Injury Syndrome, also known as PTBIS, is a set of symptoms that a person may experience for weeks, months, years or life after a traumatic brain injury (TBI). Some symptoms may manifest a substantial period of time (months or years) after TBI. PTBIS may occur subsequent to mild, moderate, and severe cases of traumatic brain injury. The condition can cause a variety of symptoms: cognitive, such as difficulty attending, concentrating, executing, focusing, judging, processing, remembering, speaking, tracking, or understanding; behavioral, such as emotional labiality, irritability, mood swings, or outbursts; or physical, such as endocrine dysfunction, fatigue, headache, incontinency, nausea, seizures, sleep disorders, or tinnitus. There are many other possible symptoms. Disorders associated with PTBIS might also include but not be limited to perceptual-motor disorders, somatosensory disorders or vestibular disorders. PTBIS might

also periodically cause secondary psychiatric disorders, such as depression or isolating behaviors, to exhibit. Diseases associated with PTBIS might include early-onset Alzheimer's disease or early-onset Parkinson's disease. There is no treatment for PTBIS itself; however, symptoms can be treated. It is partially known what causes PTBIS. Physiological brain damage from traumatic brain injury causes PTBIS. Thailand needs research for disease burden,

Reference

- 1 Decreasing the burden of infectious disease in Thailand : The Lancet, <u>Volume 381</u>, Page S11, 17 June 2013
- 2. Global burden of disease attributable to mental and substance use disorders: findings from the Global Burden of Disease Study 2010: The Lancet, <u>Volume 382</u>, <u>Issue 9904</u>, Pages 1575 1586, 9 November 2013
- 3. Dementia: A public health priority WHO/NMH/M: SD /2012.3 Online appendix
- 4. The dementia and disability project in Thai elderly: rational, design, methodology and early results. BMC Neurology 2013, 13:3. Doi: 10.1186/1471-2377-13-3

Curriculum Vitae

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Current Appointments

1978	Faculty staff member
1988	Head: Division of Neurology
1996	Deputy, Head of Department of Medicine, Chiang Mai University
1999- 2002	Head of Department of Medicine, Chiang Mai University
2002- 2010	Director of Northern Neuroscience Center
2006- 2010	Associate Dean of Faculty of Medicine, Chiang Mai University
2010- Now	Dean Academic Consultant

Qualifications

1972: Bachelor of Medical Science (B.Sc., Hons.) 1972 Chiang Mai University, Chiang Mai, Thailand

1974: Doctor of Medicine (MD) Chiang Mai University, Chiang Mai, Thailand

1974: Educational Commission for Foreign Medical Graduates (ECFMG) 1974

1978: Fellowship of the Royal College of Physicians of Thailand (FRCP (T)) 1978

1984: Fellowship in Electrophysiology, EEG, EMG and Evoked potentials University of Toronto, Canada

1986: Diplomate Thai Board of Neurology 1986

2012 Fellowship of American College of Physicians

Professional Service

2007- 2008 Member of the Medical council of Thailand2007- 2008 President of the Neurological society of Thailand

2006- 2012	Executive committee of Royal college of Physician of Thailand
2007- Now	President of Thai Headache association of Thailand 2007-now
2005- Now	vice president of Thai Dementia association of Thailand 2005-now
2005-2010	Vice president of the Executive committee of Electrophysiology association
2005-2009	Executive committee of Epilepsy Society of Thailand
2005-2009	Executive committee of Multiple Sclerosis working group of Thailand
2002-2004	Past- President, Chiang Mai Medical school alumni society
2004-2006	Past-President Organization for Physicians of Chiang Mai university Hospital
2005-2007	Past- President, Organization for Physicians of Northern region of Thailand

International committee

2008- 2012	Vice president, ASEAN Neurological Association (ASNA)
2008-2012	Executive committees, ASEAN Oceania Neurological Association (AOAN)
2008-2012	Chair of steering committee of CNS infection working group for ASNA
2008-2010	Executive committee of Asian Headache foundation (AHF)
2011-now	Executive committee of Asian Regional committee of Headache (ARCH)
2009	Chair, education committee, WCN 2009.

Ongoing Research

- 1. A randomised, double-blind, parallel-group, placebo-controlled phase III study to evaluate the efficacy and safety of desmoteplase in subjects with acute ischemic stroke
- 2. Multimodal Therapy in Dementia in Nursing home
- 3. Migraine related vertigo
- 4. Subtle dystonia in refractory headache
- 5. Comparison of Migraine treatment between Thai traditional medicne , Chinese Medicine with conventional treatment of Western Medicine :
- 6. Agomelatine in Parkinson's disease
- 7. Clinical manifestation and autonomic disorder of SCA in three big families in the Phayao province
- 8. Caregiver training module in Sansai community: what should be the best for them?
- 9. ANS abnoirmalities in spinocerebellar ataxia
- 10. ANS abnormalities in Botulism