

# Quality health care in Brunei Darussalam: The growing impact of allied health professions

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## ABSTRACT

Impact of the allied health contribution towards meeting the demanding shift of high quality health care has increasingly become more evident, more so with the evolving trend of extended scope of practice and advanced specialisation beyond their contemporary practice. Multi- and interdisciplinary networking is indisputably paramount to provide cohesive and greater spread of practice and skills gaps translating to more effective and efficient outcome of patients care. Whilst allied health in developed and neighbouring countries have propelled in formulation of workable strategies, towards escalation of their advancing roles, Brunei Darussalam allied health workforce are no exceptions – albeit undersized ratio to population, taskforce within the Ministry of Health delve into developing sustainable methodological framework and approaches to look into the needs to regulate, train, recruit, retain and form effectual governance in meeting the challenges of demographic and epidemiological change on health care and tech-savvy generation. This paper, an exemplary of such move, collaborates thoughts and evidences on how allied health in partnership with doctors and nurses help to impact the quality framework of health care through six key components - safety, timeliness, effectiveness, efficiency, equity and patient-centeredness.

**Keywords:** Allied health, healthcare quality, evidence, scope of practice

## INTRODUCTION

Health care in the 21<sup>st</sup> century is confronted by a number of challenges. These challenges include an ageing population that will consume significant health care resources, the

epidemic of non-communicable diseases (NCDs) which impact on the mortality and morbidity of the population, meagre healthcare resources due to efficiency measures necessitated due to budgetary constraints, chronic shortage of healthcare professionals and a patient who is an increasingly informed consumer of health with increasing expectations of the health system. <sup>1</sup> There

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**Table 1: The six key components of a quality framework for health care.**

<b>Safety</b>	- Preventing harm from health care that is intended to help patients.
<b>Timeliness</b>	- Providing healthcare in a timely manner and avoid harmful delays.
<b>Effectiveness</b>	- Providing health care which is based on current scientific knowledge which results in sustainable and durable outcomes for those who are likely to benefit and avoiding services to those who are not likely to benefit.
<b>Efficiency</b>	- Providing healthcare that reduces waste and efficient use of meagre resources.
<b>Equity</b>	- Providing quality healthcare to all without any discrimination based on gender, ethnicity, geographical location, and socioeconomic status.
<b>Patient-centeredness</b>	- Providing healthcare that is respectful of patients' morals, values and beliefs and responds to patients' needs and requirements.

have been numerous strategies proposed to address these challenges:- a) newer models of care which meet the emerging needs of the population <sup>2</sup>, b) health workforce changes including advanced and extended scope of practice across most health disciplines, including the allied health professionals, c) use of information technology-driven solutions such as patient-controlled electronic health records and tele-health. <sup>3</sup> While these strategies are currently being trialled, two key philosophical changes have also driven the need for change in healthcare.

The first change is the explicit recognition for research evidence to underpin healthcare practice. Evidence-Based Practice (EBP) is the explicit, conscientious and judicious use of current best evidence in making decisions about the care of individual patients and populations. This philosophy of using research evidence to inform healthcare decision making was first described by Sackett *et al.* in 1996 based on the recognition that much of healthcare decision making was based on historical practices and opinion-driven resulting in unnecessary and at times harmful treatments to patients. <sup>4</sup> As a result, it is now widely recognised that best practice in health care should be underpinned by current best

research evidence, clinical expertise, patient morals, values and beliefs and information from practice context. <sup>5</sup> However, it must be acknowledged that despite the widespread recognition of the importance of EBP, evidence-practice gaps (what is known to be effective in research is not translated in clinical practice) continue to persist showcasing the ongoing challenges faced in implementing and sustaining research evidence in clinical practice.

The second change is the explicit recognition of the importance of a quality framework to underpin healthcare services has also been witnessed in the recent past. While quality in healthcare has always been challenging to define and measure <sup>6</sup>, historically there was an assumption that all healthcare was indeed quality healthcare, which subsequently has been shown to be incorrect by a number of research studies across the world. <sup>7,8</sup> Seminal research undertaken by the Institute of Medicine in the United States of America and reported in "*Crossing the Quality Chasm*" and "*To Err is Human*" provided a framework to define and measure healthcare quality. <sup>9</sup> This quality framework for health care contains six key components (Table 1).



**Fig. 1: An overview of the role of allied health in contemporary healthcare.**

It is in this context of “change” that, all professions within the health system can play an important role. Historically, the professions of medicine and nursing have played an important role in delivery quality healthcare, especially given the focus on mortality and acute health conditions threatening the population during those times. Recently though, while life expectancy continues to grow, so does the prevalence of chronic conditions, obesity and NCDs. This coupled with meagre resources, shortages of health professionals and an informed consumer means contemporary 21<sup>st</sup> century healthcare requires innovative thinking and actions. Successfully meeting these challenges to the health system will require all professions within the health system including allied health professions (Figure 1).

### **CONTEMPORARY ALLIED HEALTH AND THEIR CONTRIBUTIONS**

While there is no standard or agreed definition of allied health, the most common approach has been to group a number of professions which are not medical/nursing as “allied health”. However, in recent times, new mod-

els of allied, scientific and complementary health professions have been proposed which is built on the tasks undertaken (such as therapy, education, assessment and management), rather than merely a designation<sup>10</sup> in credit of their diverse roles in the chain of health care services, spanning all spectrums of healthcare from curative to rehabilitative and palliative care. In many clinical pathways, allied health professionals are either part of a multidisciplinary team in patient management or are the leading clinicians.

The diversity in allied health is also its strength. From an educational point of view, historically allied health professionals followed an apprentice model which has now been replaced by structured, accredited tertiary educational programmes. Some allied health educational programmes supplement the tertiary education with structured clinical internships post-graduation and growing trends towards specialisation and extended scope of practice pathways beyond that is contemporary of their traditional practice. Allied health professionals can work autonomously at a range of settings, including as primary contact practitioners in private settings, government sectors and non-governmental organisations. Some allied health professionals may also work in the education and academic sectors and some act as managers, policymakers and administrators. Given that many allied health professions work towards addressing impairments, participation restrictions and activity limitations, these professionals often work in a multi-disciplinary framework with a range of allied health, medical and nursing practitioners. Working in partnership with medical and nursing practitioners, allied health professionals can undertake diagnostic (radiography,

orthoptics, optometry, audiology), rehabilitation (the “therapy” disciplines including, but not limited to, physiotherapy, occupational therapy, speech pathology, podiatry, orthotics & prosthetics), counselling (medical social work, dietetic and psychology) and health promotion. They can work through the healthcare continuum from the preventative healthcare (such as prevention of NCDs through education and awareness) to acute care (in emergency departments through advanced and extended scope of practice in physiotherapy). Therefore, while historically the diversity of, and the complexities within, allied health professions may have been considered as its “Achilles Heel”. However recent times have demonstrated that this flexible workforce can indeed contribute a great deal for any health system.

There are many examples of allied health professions, working in collaboration with medical and nursing practitioners that can contribute towards quality healthcare. For example, there is good evidence on the impact of allied health in addressing the challenges of the NCDs.<sup>11</sup> There is sound evidence on the effect of self-management, exercise, education on the prevention and ongoing management of NCDs and allied health as a collective can play a crucial role in this context.<sup>12</sup> For example, in England, the Strategic Health Authority Allied Health Professions Leads collaborated with National Health Service London and developed a number of allied health toolkits for a range of health topics namely stroke, musculoskeletal disorders, cancer, diabetes, oral nutritional support and more broadly for allied health professional’s continuing personal and professional development.<sup>12</sup> This highlighted the vital role allied

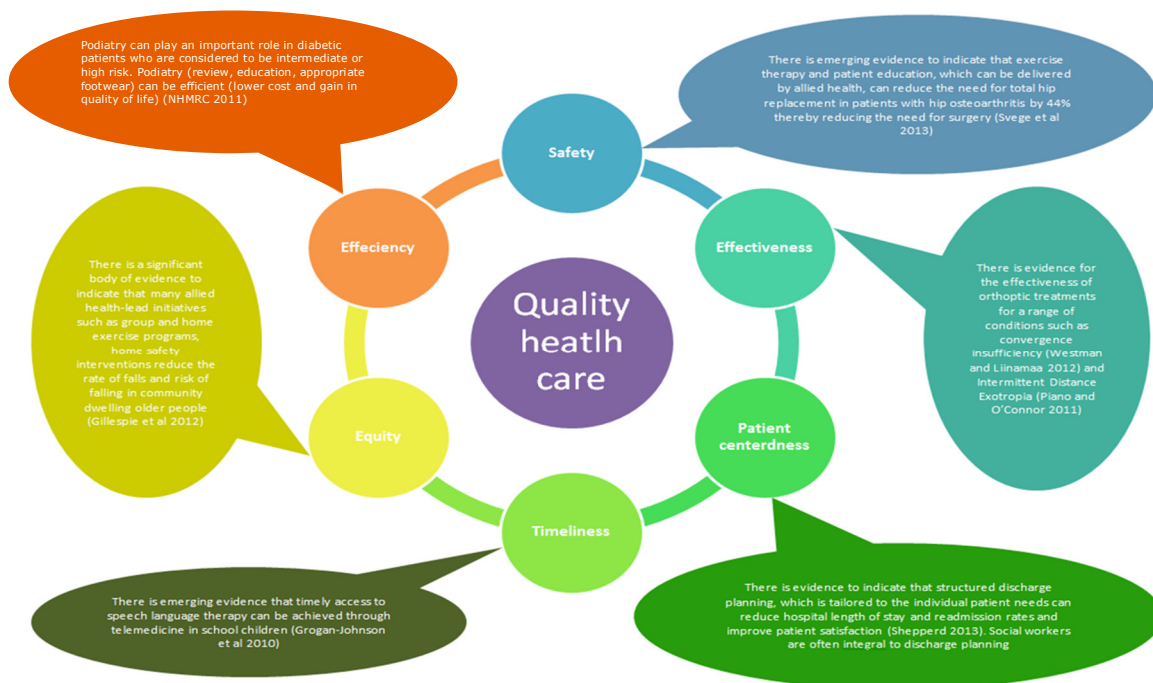
health professions can play in everyday healthcare and its ongoing transformation.

Therefore, individual and multidisciplinary allied health disciplines too can play an important role in providing quality care for diseases such as diabetes, chronic obstructive pulmonary disease, cardiovascular diseases, stroke, dementia, musculoskeletal disorders and even cancer.<sup>12</sup> As many allied health professionals work in community settings, much of this care can be provided in community settings, which reduces the pressures on hospitals, frees up meagre resources and ensures hospitals focus on treating complex and acute needs of the patients. Within the hospital sector, allied health professionals can facilitate access to quality care resulting in improved process and outcomes of care. For example, physiotherapists working in advanced and extended scopes of practice have been shown to be safe and effective in assessing, diagnosing, treating and discharging simple musculoskeletal disorders. These roles have ensured patients with simple musculoskeletal disorders are treated in a timely manner, and safely discharged, resulting in emergency departments focussing serious and complex patients. At the other end of the spectrum, allied health professionals can contribute to getting patients home in a safe and timely manner, following their treatment at the hospital, thereby freeing up beds of other patients in need and avoiding readmissions. In addition to contributing to the health system, allied health professionals, who are well integrated into the health system, can reduce the burden on an overstretched medical and nursing workforce.

So, how can allied health professions contribute to quality health care? There is a

growing body of research which supports the increasing contribution of allied health professions in contemporary healthcare. Traditional and contemporary allied health roles, in the form of advanced and extended scope of practice, highlighted opportunities where allied health professions can assist medical and nursing workforce by alleviating workload pressures and improving health care access to patients. These roles, in the future, with further role development, competencies and training, can result in specialisation. However, in order to achieve this a systems-wide focus is required which takes into account continuing educational requirements, career development, governance structures and regulatory frameworks to ensure development, implementation and evaluation of best practice (through benchmarks and standards of care). Figure 2 provides an overview of allied health professions contributing to the six key components of health care quality.

In terms of *safety*, Svege et al.<sup>13</sup> demonstrated that exercise therapy when combined with patient education can reduce the need for total hip replacements by 44% in patients with hip osteoarthritis. Reducing the need for total hip replacements also reduces the potential risks that arise from surgery (such as infection) and costs associated with the surgical treatment. Similarly aimed to put patients' safety foremost, the British Dietetic Association (BDA) is the first Allied Healthcare Professional membership organisation in the United Kingdom to 'Sign up to Safety'.<sup>14</sup> This national campaign championed the dietitians' crucial role as key professionals in helping to combat preventable "major source of death and severe harm" - inadequate nutrition and hydration particularly in susceptible groups (elderly, acutely ill, babies, children, people with learning disabilities and mental health problems).



**Fig. 2: A diagrammatic overview of the contribution of allied health professions to the six health care quality components.**

With regard to *timeliness*, a pilot study compared the effectiveness of speech language therapy provided by telemedicine with conventional on-site therapy.<sup>15</sup> In this study of 34 children, 17 received telemedicine for four months and then subsequently conventional therapy for four months. The second group received conventional therapy for four months followed by telemedicine for four months. The outcome measures of interest were student progress, participant satisfaction and any interruptions to service delivery. The findings from this study demonstrated that there were no differences in student progress between the two groups and students and parents were supportive of the telemedicine approach. The pattern of cancellations was no different to the national average. The findings from this study highlights how using innovative technologies such as telemedicine can ensure timely access to allied health services which are effective and acceptable to end-users.

For *effectiveness*, a retrospective audit of 135 patients with convergence insufficiency but had not received prior strabismus surgery or orthoptic exercises found that orthoptic exercises were effective in relieving asthenopic symptoms in adults and children.<sup>16</sup> Similarly, Piano and O'Connor (2011)<sup>17</sup> undertook a structured literature review on conservative management for intermittent distance exotropia. The findings from this review indicate that while intermittent distance exotropia is a difficult condition to manage because of its variability/uncertain natural history, conservative management options such as orthoptic exercises can play an important role. When considering *efficiency*, the National Health and Medical Research Coun-

cil's (NHMRC) of Australia<sup>18</sup> clinical practice guidelines on prevention, identification and management of foot complications in diabetes (Type 2 Diabetes), has indicated that podiatry can play an important role in diabetic patients who are considered to be intermediate or high risk. Podiatry treatments such as review, education, appropriate footwear can be efficient forms of health care as they are lower cost and can result in gain in quality of life (NHMRC 2011).<sup>18</sup> For *equity*, Gillespie and colleagues (2012)<sup>19</sup> undertook a Cochrane systematic review which demonstrated that many allied health-lead initiatives such as group and home exercise programs, home safety interventions reduce the rate of falls and risk of falling in community dwelling older people. Given that older people may not have ready access to health services compared to their younger counterparts (due to access issues such as transport, multiple comorbidities), this review demonstrates that allied health-lead interventions at home are effective in promoting health outcomes. Finally, from the perspective of patient-centeredness, Shepperd and colleagues (2013)<sup>20</sup> undertook a Cochrane systematic review which demonstrated that a structured discharge plan, which is tailored to meet the individual needs and requirements of the patient, may result in a reduction in hospital length of stay and readmission rates while increasing patient satisfaction. With the increasing focus on community care, this is an important finding and highlights the impact of professions such as social work, which contribute to best practice discharge planning.

#### **GLOBAL DEVELOPMENT OF ALLIED HEALTH PROFESSIONS**

According to the World Health Organisation (WHO) inter-country report (2000) involving

eight countries in the Southeast Asian Region, identifying effective strategies to strengthen allied health services, optimising utilisation and creating conditions to improve and develop allied health education are some of the key solutions to address issues of allied health human resource shortages and its development.<sup>21</sup> These initiatives however, should also be based on evidence of country-specific needs and in the context of national health policy and requirements that is workable and sustainable. To realise such initiatives, countries will need to seriously commit to advocate and implement strategic plans to enhance the standards of allied health professions. The report went on to recommend a number of instrumental initiatives to Member States such as optimising allied health services and personnel through career development plans and systems of continuing professional education, as well as developing or strengthening and implementing mechanisms (regulatory bodies) for quality assurance and accreditation of allied health services and education. In areas of management of allied health services, Member States were encouraged to strengthen managerial capacities, establish a focal point or body at the national level to be responsible for allied health services development (including education, training and protection) and ensure representation or inputs of allied health personnel in policy-making and planning. Clearly, global concerted efforts and commitment must exist in order to realise and develop effective policies for planning, production and the management of allied health professionals. Developed countries such as Australia, United Kingdom, United States of America and including European leaders and entrepreneurs in exercising 'responsible autonomy' to en-

hance and strengthen development of allied health services as well as optimising its allied health personnel. This is achieved through establishing the right organisational infrastructure and through well-established health professional regulatory bodies for example, Health and Care Professions Council (HCPC), United Kingdom, Allied Health Professions Network, in Australia, Allied Health Professions Council (AHPC) in Singapore and other recognised professional associations (support systems) such as the Chartered Society of Physiotherapy (CSP), United Kingdom and British Psychological Society (BPS), United Kingdom. These health care professional bodies and associations had long embraced and constitutionalised the fundamental concepts of harmonisation under one governance, administration and management that have been proven to work, aimed to unify the diversities of healthcare disciplines including allied health professions.

#### **WHERE DO WE GO FROM HERE?**

Consequently, consideration to adopt these proven methodologies into our very own health care system where allied health professions, its services and personnel can be optimised and integrated under one establishment or governing body could create opportunities of allied health advancement and further influence development of quality health care in Brunei Darussalam. Allied health has its own unique opportunity to support the mission and vision of the Ministry of Health through provisions of appropriate systems, infrastructures as well as mechanisms that allows collaborative work and partnerships. Allied health professions that organises and commit themselves collectively in a cohesive design such as in an association or governing body, had prov-

ven that allied health professionals can demonstrate that equal partnership, with genuine and mutual understanding is the way forward to enhance and upscale professionalism and standards.

While the increasing contribution of, and the recognition for, diverse and distinct roles and unique specialities of allied health professions within Brunei Darussalam has resulted in appointment of Heads of each allied health profession speciality, establishment of Interim Committee for the Allied Health Professions Council of Brunei Darussalam, Allied Health Association and mapping out role development framework through a new scheme of service for the allied health, aimed to recognise their professionalism and contribution towards the development of health care services and their profession. In order to successfully meet the emergent health challenges (and its wider societal impact), all health care stakeholders must work collaboratively in a partnership approach. Allied health, in collaboration with Medicine and Nursing, should develop innovative ways of delivering healthcare services to those in need. This might be in the form of multi-disciplinary/ trans-disciplinary models of care and/ or advanced/extended scope of practice. Across the world, health care stakeholders recognise the impact of such collaborative partnership approaches which are ideally placed to deal with complex needs of the patient (rather than the historical silo approaches). It is important key stakeholders such as patients are engaged with, and made aware of, such new models of care and partnered in the development and implementation process (to gain their perspectives). While innovation is critical, so is ongoing evaluation. Not all

innovations achieve success immediately and therefore it is important to embed ongoing evaluation to determine what works for whom, when, how and why. Ongoing evaluation is also useful to identify and understand what did not work, why and how changes can be made. Lessons learnt can then be fed into future initiatives.

To quote the eminent scientist Albert Einstein "*Insanity: doing the same thing over and over again and expecting different results*" and it is clear that in order to meet the health challenges of the 21<sup>st</sup> century, fundamental changes are required to how health care services are planned, delivered and evaluated. Complex problems require complex solutions and any such solutions can only be achieved by medical, nursing and allied health professions all working together in partnership with other health care stakeholders. By doing so, Brunei Darussalam can successfully and sustainably achieve health care quality in the 21<sup>st</sup> century.

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