AOPA Position Statement: Opportunities for growth in the orthotic and prosthetic support workforce

Enhancing orthotic and prosthetic clinical care
About the Australian Orthotic Prosthetic Association
The Australian Orthotic Prosthetic Association (AOPA) is the peak professional body for orthotist/prosthetists in Australia. AOPA self-regulates the profession through the establishment of standards, codes and guidelines, which are upheld by AOPA certified practitioners.

Our certified practitioners are qualified orthotist/prosthetists employed throughout the public and private sectors. They provide the full range of orthotic and prosthetic clinical care to support mobility, quality of life, rehabilitation, and participation goals of their clients.

AOPA’s mission is to provide a robust self-regulatory environment for the profession and thereby ensure the delivery of safe and effective orthotic and prosthetic care for the Australian consumer.

AOPA also has a role in member representation and the delivery of member benefits, which contributes to the growth of the profession, the shaping of clinical services and maintaining a profession of excellence.

For more information about the Australian Orthotic Prosthetic Association, visit www.aopa.org.au

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Summary of purpose

This position paper describes the role, scope and value of the orthotic/prosthetic support workforce in the delivery of orthotic and prosthetic services across a diverse range of settings. The support workforce is important as it enables the timely and efficient delivery of orthotic and prosthetic clinical services by orthotic/prosthetic practitioners. Currently this includes orthotic/prosthetic technicians, but there is a great need to harness the potential of technology and allied health assistants to help alleviate workforce stress in the future. This paper will assist practitioners, policy makers and allied health colleagues to understand the clinical governance requirements for safe and effective use of support workers for the delivery of orthotic and prosthetic care in the Australian healthcare setting.

Orthotist/prosthetist practitioners

“Orthotist/prosthetists assess the physical and functional limitations of people resulting from illnesses and disabilities, including limb amputations, and provide orthoses and prostheses to restore function or compensate for muscular and skeletal disabilities”

In Australia, orthotist/prosthetists are tertiary qualified allied health practitioners, whose key role is to promote quality of life through a client centred approach to the provision of orthotic and prosthetic treatment. An orthotist/prosthetist is responsible for the delivery of clinical and technical services relating to orthoses and prostheses for the entire body, for a wide range of clinical presentations and in a vast array of clinical environments.

For example, this may include the assessment, prescription, design, manufacture, fitting and ongoing education and support relating to the provision of a lower limb prosthesis following amputation, or an orthosis to support a flail upper limb following a brachial plexus injury.

Orthotic/prosthetic technicians

The orthotic/prosthetic workforce currently relies on one type of support worker: orthotic/prosthetic technicians. The Commission on Accreditation of Allied Health Education Programs defines the Orthotic/Prosthetic Technician role as to “support the credentialed orthotist/prosthetist and other credentialed practitioners by providing the technical implementation tasks and services associated with the support of patient care. The technician fabricates repairs and maintains devices to provide maximum fit, function and cosmesis under appropriate consultation and supervision with the credentialed orthotists/prosthetists and other credentialed practitioners”.

Orthotic/prosthetic technicians have played a key role in the delivery of orthotic and prosthetic services in Australia for many years. The purpose of this role is technical support and expertise, which allows practitioners to delegate manufacturing and repair tasks, making more practitioner clinical time available. In the Australian context it is unusual for an orthotic/prosthetic technician to have direct client contact. Not all orthotist/prosthetist practitioners are supported by technicians, so practitioners must continue to maintain competency in all technical aspects of orthotic/prosthetic care.

Challenges to providing orthotic and prosthetic services in Australia

A recent study of Australian orthotist/prosthetist workforce demographics found that in the 6 years prior to 2012, practitioner incidence has remained unchanged at approximately 1 orthotist/prosthetist
per 100,000 population. This means that while the number of orthotist/prosthetists increased, this was proportionate to population growth\(^4\). The incidence of orthotist/prosthetists in Australia falls well below international comparisons and published recommended rates: 1.48 in the United Kingdom\(^5\), 2.4 in the United States of America\(^6\) and 3.0 as the sole published recommended rate per 100,000 population for orthotists\(^7\). The incidence of orthotist/prosthetists in metropolitan regions (1.3 per 100,000 population) was more than double that of regional and remote Australia and was subject to considerable state-to-state variation (refer figure 1)\(^4\).

Low practitioner incidence and geographic maldistribution leave much of the nation underserviced. The introduction of the National Disability Insurance Scheme combined with an ageing population and increased rates of chronic disease will increase the demand for orthotic/prosthetic services. Comparable countries with a higher practitioner incidence have predicted future orthotic/prosthetic workforce shortages (i.e. USA), and it seems likely that similar shortages will occur in Australia. The impact of this will be more critical in those areas already with a very low practitioner incidence. The resolution for low practitioner incidence will require multiple changes in a range of areas, but will take substantial time to have an impact at the point of service delivery. These changes may include immigration policy, jurisdiction specific incentives to attract practitioners and training pathways.

In the meantime, the current workforce must find innovative ways to increase their capacity to provide clinical services to ensure optimal patient outcomes. The orthotic/prosthetic support workforce must be utilized in order to expand, grow and maximize the efficiency of the current workforce of orthotic/prosthetic practitioners. This can be done in three ways: by developing new models of training of orthotic/prosthetic technicians, utilizing advances in orthotic/prosthetic technology to complement technical support, and utilizing allied health assistants as support workers for orthotic/prosthetic practitioners.
New training models for orthotist/prosthetist technicians

The Australian orthotic/prosthetic technician workforce has predominately been trained through apprenticeship or on-the-job style training. Between 2007 and 2014 the Vocational Education Training sector offered an Orthotic/Prosthetic Technology training package. This training package was removed following a Community Services and Health Skills Industry Council (CS&HSIC) consultation in 2013-14. The consultation outcome identified that the training package had very little uptake and concluded that it was without relevance and did not have national applicability. AOPA did not support the decision to remove the training package.

A training pathway for orthotic/prosthetic technicians would increase workforce mobility for this small workforce, create a career pathway and decrease the burden on clinical facilities to provide on-the-job training. The training must be innovative and meet the requirements of this small workforce. It needs to be flexible, allowing for off-site learning and part-time learning modes that the previous training model did not allow for. Establishment of an innovative model of technician training is essential to maintain this support workforce and ensure orthotist/prosthetists are well supported to focus on the delivery of clinical services.

The changing face of orthotic/prosthetic technology: opportunities for the support workforce

Advancements in materials and fabrication techniques will result in greater options for technical support available to orthotist/prosthetist practitioners. Until now, the use of orthotic/prosthetic technicians was the only method available to decrease a practitioner’s technical workload and increase time for clinical care. Recent advancements in scanning technology now make it possible for practices to develop central fabrication arrangements, which would provide additional technical support to practitioners. Central fabrication means that the practice would use an external, off-site technical provider to complete the manufacturing component of the service delivery. While this model has been in place for many years, advancements in scanning technology are making it increasingly accessible.

Technological advancements in 3D printing will also drive change in how technical support is provided to the profession. 3D printing technology increases the number of “virtual technicians” and technical services available to the profession. It is AOPA’s view that 3D printing may provide a valuable alternative to employment of a technician or entering into a central fabrication arrangement. This may involve the use of an external 3D printing supplier, managed for example by a rehabilitation engineer who would take responsibility for the technical support requirements. 3D printing in orthotics and prosthetics is an innovative replacement for the technical tasks of the profession.

Allied Health Assistants in the future orthotic/prosthetic support workforce

There are a number of tasks within the orthotic and prosthetic clinical treatment pathway where the support workforce can play a vital role. Most obviously this includes the technical component currently performed by orthotic/prosthetic technicians, however clinical support using allied health assistants is an increasing opportunity to improve the efficiency of service delivery.

Allied health assistants are defined as:
“A person employed under the supervision of an allied health professional who is required to assist with therapeutic and program related activities. Supervision may be direct, indirect, or remote and must occur within organisational requirements”.

In the current Australian context, the term Allied Health Assistant describes assistants with diverse skills who work under the delegation and supervision of an allied health practitioner. They have generic training across a number of allied health service areas, such as occupational therapy and physiotherapy, and take on less-complex clinical or administrative tasks as delegated by the allied health practitioner. The delegation of tasks allows the qualified allied health practitioner to allocate more time to complex clinical care, which cannot be undertaken by others. Allied Health Assistants, like orthotic/prosthetic technicians must work under the clinical oversight of an allied health practitioner and are unable to work autonomously in the provision of clinical care.\textsuperscript{9, 10}

To date there has been minimal utilisation of Allied Health Assistants in the delivery of orthotic and prosthetic care. In 2009, the Victorian Department of Health identified that the greatest numbers of Allied Health Assistants were working with physiotherapists (45%), multidisciplinary teams (26%) and occupational therapists (24%)\textsuperscript{9}. Yet consideration of the role and competencies of AHAs in both direct and indirect client care suggests the areas of value in occupational therapy and physiotherapy service delivery would be the same in the delivery of orthotic and prosthetic services.

The use of Allied Health Assistants in orthotic and prosthetic service delivery has been investigated in a Victorian Department of Health study in 2009. Examples of opportunities for change included the use of Allied Health Assistants in fracture clinics to triage referrals and allows orthotists to focus on assessment and treatment of patients with a resulting waitlist reduction\textsuperscript{11}. This preliminary work highlights an opportunity for efficiencies in the provision of orthotic/prosthetic clinical care and warrants consideration and further investigation. To achieve this, specific training must be embedded into Allied Health Assistant training programs, such as the Certificate III or IV in Allied Health Assistance.

\textbf{AOPA’s Position regarding the orthotic/prosthetic support workforce:}

- The orthotic/prosthetic support workforce plays a valuable role in alleviating current and future workforce pressures on orthotist/prosthetists
- More specialised clinical care time for orthotist/prosthetist practitioners means improved consumer access to orthotic and prosthetic clinical services
- The potential support workforce includes orthotic/prosthetic technicians and Allied Health Assistants, who provide technical and clinical assistance under the direction and supervision of an AOPA certified orthotist/prosthetist
- Advancements in orthotic/prosthetic technology represent valuable opportunity to increase the technical support offered to orthotic/prosthetic practitioners
- AOPA does not support role substitution to address workforce pressures, rather, AOPA supports innovative and feasible approaches to improve access to clinical care by reducing the technical and administrative workload for certified orthotist/prosthetists

\textbf{Significance of this statement}

This statement clarifies the role of orthotist/prosthetists and the orthotic/prosthetic support workforce in the delivery of orthotic and prosthetic care. Consumers can expect services provided by a technician
(or technical support services) and/or Allied Health Assistants to be overseen by a certified orthotist/prosthetist and to be integrated into a broad clinical treatment plan.

Identified challenges

- Innovative models of technician training are required to support development of the technician workforce and establish career pathways.
- Central fabrication and technological advancements (ie. 3D printing) provide valuable service support, but do not replace the clinical role of the orthotic/prosthetic practitioner. Integration of these new to market services with clinical expertise is essential to achieve optimum client outcomes.
- To facilitate increased use of Allied Health Assistants, specific training must be embedded into Allied Health Assistant training programs, such as the Certificate III or IV in Allied Health Assistance.

References