Available online at www.sciencedirect.com
ScienceDirect
journal homepage: www.elsevier.com/locate/burns

Burn injury models of care: A review of quality and cultural safety for care of Indigenous children

Sarah Fraser [a], Julian Grant [a], Tamara Mackean [a,b], Kate Hunter [b], Andrew J.A. Holland [c], Kathleen Clapham [d], Warwick J. Teague [e], Rebecca Q. Ivers [a,b,c,*]

[a] Flinders University, SA 5001, Australia
[b] The George Institute for Global Health, University of NSW, NSW 2050, Australia
[c] Sydney Medical School, The University of Sydney, The Children's Hospital at Westmead, NSW 2145, Australia
[d] Australian Health Services Research Institute, University of Wollongong, NSW 2522, Australia
[e] The Royal Children's Hospital, University of Melbourne, VIC 3052, Australia

ARTICLE INFO

Article history:
Accepted 14 October 2017
Available online xxx

Keywords:
Burn
Indigenous
Safety
Quality
Models
Culture

ABSTRACT

Safety and quality in the systematic management of burn care is important to ensure optimal outcomes. It is not clear if or how burn injury models of care uphold these qualities, or if they provide a space for culturally safe healthcare for Indigenous peoples, especially for children. This review is a critique of publically available models of care analysing their ability to facilitate safe, high-quality burn care for Indigenous children. Models of care were identified and mapped against cultural safety principles in healthcare, and against the National Health and Medical Research Council standard for clinical practice guidelines. An initial search and appraisal of tools was conducted to assess suitability of the tools in providing a mechanism to address quality and cultural safety. From the 53 documents found, 6 were eligible for review. Aspects of cultural safety were addressed in the models, but not explicitly, and were recorded very differently across all models. There was also limited or no cultural consultation documented in the models of care reviewed. Quality in the documents against National Health and Medical Research Council guidelines was evident; however, description or application of quality measures was inconsistent and incomplete. Gaps concerning safety and quality in the documented care pathways for Indigenous peoples' who sustain a burn injury and require burn care highlight the need for investigation and reform of current practices.

1. Introduction

Around the world, burn injury is a leading cause of morbidity [1], with children particularly at risk [2,3]. People living in lower to middle income countries [1,2,4] and those who identify as Indigenous [4–8] are at greater risk of burn injury. Australian research has shown a greater proportion of Aboriginal than non-Aboriginal children sustain full thickness burns and burns affecting more than 20% of the total body area [9],

* Corresponding author.
E-mail addresses: sarah.fraser@flinders.edu.au (S. Fraser), julian.grant@flinders.edu.au (J. Grant), tamara.mackean@flinders.edu.au (T. Mackean), khunter@georgeinstitute.org.au (K. Hunter), andrew.holland@health.nsw.gov.au (A.J.A. Holland), kclapham@uow.edu.au (K. Clapham), warwick.teague@rch.org.au (W.J. Teague), rivers@georgeinstitute.org.au (R.Q. Ivers).
https://doi.org/10.1016/j.burns.2017.10.013
0305-4179/

similar to the increased incidence of burn injury for Aboriginal peoples living in non-metropolitan areas of Canada [5]. Health services continue to struggle to provide appropriate care to marginalised peoples [10] and this coupled with the over representation of burns in such populations, can challenge health systems globally to effectively resource and deliver suitable care.

Burn care is a collaborative and multidisciplinary process that, depending on burn severity, may require specialised facilities staffed by experts in burn care [11]. The specialised nature of burn care often results in hospital admission [1], frequent and sustained follow-up care and rehabilitation [12]. This specialist, multidisciplinary burn care required for good outcomes is guided by various system and service documents. One key set of documents include those relating to the clinical management of burn injury. These documents are usually discipline specific and guide health professionals in their provision and decision making regarding direct clinical care [13].

In contrast to these more clinical documents, guidance relating to overall system and service contexts for burn care is provided through burn injury models of care.

Models of care are not discipline specific nor do they have a specific clinical focus. A model of care is more of a multifaceted concept which broadly defines the way health services are enacted and delivered [14]. Models of care outline evidence-based, best practice patient care delivery through the application of a set of service principles across identified clinical streams and patient flow continuums [14]. While such principles are commonly recognised, ambiguity continues to exist regarding a strict definition of what constitutes a model of care [15]. For the purpose of this review, a model of care will be defined as an evidence informed philosophical document that provides an overarching framework for burn injury management for a given jurisdiction.

Though models of care for burn injury exist, what constitutes evidence based best practice burn care from this overall system and service perspective remains unclear. Primary research describes specific aspects of burn care, for example post-acute care and the use of telehealth [16,17], education and follow-up [18] and the medical management of a burn injury [19]. Apart from a national review of burn care in the British Isles there is little literature that critiques and maps *overall* burn care for any given jurisdiction; the British Isles review stresses an urgent need for a coherent national burn care strategy [20]. Overall, it is unclear if existing international, or in particular Australian burn injury models of care purporting to represent best practice, are evidence informed, or have been evaluated to assess their ability to facilitate safe and high-quality care.

Safety and quality are implicit in models of care and are equally important for consumers of care as well as for health systems, services and professionals. High quality healthcare facilitates increased effectiveness and efficiencies [21]. This is true for the clinical component of burn management in regards to increased efficiencies in Australian jurisdictions [18,22,23]. Internationally, governmental commissions inform safety and quality in healthcare [24–27]. In Australia, the Australian Safety and Quality Framework Health Care informs a vision for safety and quality in healthcare [28]. Frameworks such as these provide guidance and aim to achieve safety and appropriateness of healthcare in partnership with consumers [29]. Specific quality improvement documents exist for burn care [30]. How the concepts of safety and quality have been achieved, relate to or provide specific guidance to the systems and service management of Indigenous peoples with a burn injury remains unclear.

Differences in knowledge systems exist [31]. Science, a dominant global knowledge system, is in stark contrast to Indigenous knowledge systems of knowing, being and doing [32]. An important consideration where healthcare is directed at Indigenous people, is how safety may also relate to cultural competency and cultural safety. Cultural competency is the skill and capacity of healthcare professionals and systems to respond to cultural differences [33]. Cultural safety is an experiential, contextual theory developed by Maori in the New Zealand healthcare context to address the ways in which colonial practices, organisations and policy shape and negatively affect the health of Maori peoples [34]. The theory has since been adopted in other countries including Canada [35] and Australia [33], with evidence of improved healthcare outcomes [33]. Similarly, outcomes following a burn injury are associated with many factors [36–40] and extends beyond simple issues of timely access to high-quality and specialist care. Within the context of burn care and for Indigenous peoples, cultural safety or lack thereof, also contributes to health outcome. As such, it is anticipated that if a burn injury model of care is of a high-quality and provides opportunities for health services and professionals to enact care that is culturally competent, there is potential for better health outcomes for those receiving care. Effective examples of culturally competent models of burn care are poorly described in the literature.

This review aims to describe the existing Australian and international burn injury models of care that guide burn care management, particularly that of Indigenous children, and to critique and assess these models of care for their ability to facilitate safe, high-quality burn care.

2. Methods

2.1. *Search strategy*

The search strategy included evidence syntheses and grey literature. The research focus and relevant search terms were developed iteratively in consultation with a supervisory group and refined during the literature search process. An initial search was conducted of the electronic databases: CINAHL, Scopus, Informit, and Web of Science. Keywords included: burn* AND "model of care" OR "practice guideline" OR "practice framework" OR "care standard". Additional key papers; guidelines; care standards; models of care and policy documents were sourced from health organisations and relevant associations as well as a search through reference lists and in Google Scholar. Literature was included if it reported on the system and service perspective of burn injury; with any focus on paediatrics or the care of Indigenous peoples. Because this review focuses on burn care from a systems and service perspective; literature limited to descriptions of the clinical

Please cite this article in press as: S. Fraser, et al., Burn injury models of care: A review of quality and cultural safety for care of Indigenous children, Burns (2017), https://doi.org/10.1016/j.burns.2017.10.013