

ABSTRACT

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Title: Relevance of available caregiver resources to maintain the homeostasis of the oral cavity and the respiratory organs

Introduction: The provisions for routine oral care and sustenance for people with certain health conditions often requires adaptation of the skills and the availability of prerequisite resources that caregivers and health professionals use every day are provided by the oral-medical-dental care device known as *Mouth Almighty*TM. This system of routine oral hygiene maintenance deployed promptly after the delivery of a meal or medication offers an extraordinary resource for many caregivers to effectively utilize. The (a) diagnosis, (b) the oral manifestations of the condition, disease, or illness, (c) the medical and dental billing codes, (d) the Standard of Care Prevention Guidelines and (e) the fourteen uses, (1-14), thoroughly demonstrate the potential for the impact on human health and relevance of the *Mouth Almighty* device to dental, medical, and oral health care industries. Evidence-based, prevention management of oral and dental conditions that can compromise the oral mucosa, lips, teeth, throat, esophagus, lungs, the ability to swallow, speech production, and food consumption can significantly improve the quality of life. The number of people, children, and adults world-wide that are afflicted by many of these conditions clearly demonstrates the commercial viability of *Mouth Almighty*.

The 2019 National Teaching Institute & Critical Care Nurses Exposition provided the forum for The Children's Oral Health Institute to collect survey data from 402 critical care unit (CCU) nurses from 44 states, Washington, DC, Puerto Rico and Canada to glean their confidence on how effectively they are able to manage patient oral health. The data collected offers insight into the management of patient oral-medical-dental health care during the hospital stay. The concentrated goals for the purpose of this abstract are to consider two findings. First, to demonstrate the significance and appeal for the interprofessional collaboration between medicine and dentistry. Second, to transfer data knowledge into action by exploring resource enhanced oral care for the differently-abled, infirmed and hospitalized patient populations. The introduction of enhanced oral-medical-dental health care measures could help to influence improve function and help to maintain the hemostasis of the oral cavity and the respiratory organs, and avert deterioration.

Methods: 402 critical care unit nurses completed two separate surveys over two-days. These surveys were each made up of twenty-one questions. The patient load CCU nurse routinely care for during a work shift were taken into account. The responses to prescribed routine oral care management of the mouth were considered, including (1) brushing the teeth, (2) cleaning the soft tissue, (3) cleansing and exercising the tongue, and (4) moistening and exercising the lips of all CCU patients.

Results: Analysis of the management of oral conditions that could compromise the oral and potentially the respiratory organs are provided in this outcome data. Existing product inefficiencies (use of toothettes), and frustration regarding the number of times during a shift that nourishment followed by oral care is prescribed were the two most common points critical care nurses communicated as challenges. When these impediments emerge, nurses communicated not feeling fully poised to execute oral care tasks especially for the critically ill and for the neediest of patients. This includes the fact that 87% CCU nurses provided care for as many as 5 patients at a time during a single shift. 7% of these nurses provided care for 6 to 10 patients during a single shift, and 5% provided care for 10 or more patients. 75% of critical care unit (CCU) nurses report providing care for ventilated patients during a work shift.

While, 97% of nurses agree that oral health care is a part of their routine maintenance and management of patients, 80% report having interest in better oral health maintenance and management training. According to one nursing fundamentals course, *Basic Principles of Mouth Care*,^{i ii} nurses and physicians receive this instruction. 88% report interest in the inclusion of the dental hospitalist as part of the CCU team.

Conclusions: The provisions for routine oral care and sustenance for people with certain health conditions does require adaptation of the skills that caregivers and health professionals must use every day. Oral microbiome is crucial to health as it can cause both oral and systemic diseases. It rests within biofilms

throughout the oral cavity and forms an ecosystem that maintains health in a state of equilibriumⁱⁱ. Therefore, it is principally important to elevate the relevance of available caregiver resources to help maintain the homeostasis of the oral cavity and the respiratory organs. The health care industry must be endeared to fully appreciate the survival aspect of the health care equation that unified oral-medical-dental care maintenance unquestionably affords patients throughout periods of hospitalization and infirmity, or simply throughout the existence of dependent individuals.

These surveys describe the need and offers promise for progressive options that may help to advance the acceptance of unique oral care delivery systems especially for patients at risk of compromised oral health that could lead to compromised respiratory health. The findings support the value placed on the importance of creativity and innovation to help reduce systemic deterioration and pneumonias secondary to poor oral health.

Finally, the dedicated composition of the operational components offered by the oral-medical-dental health care device known as *Mouth Almighty* are exclusively designed to improve function, avert deterioration, and maintain functioning. The efficacious utilities provide by this comprehensive unit has the ability to safely afford caregivers, including nurses, physicians, dentists, and other health professionals accelerated support for all those entrusted to any form of assisted living circumstances, from hospital care to home care. The inclusion of this innovation in the preventive health care resource product pipeline, supports the service, training and devotion of caregivers to help achieve wellness and enhance the human condition.

ⁱ The Brookside Associates and U.S. Army Medical Department. *Nursing Fundamentals: Basic Care of the Mouth*. https://brooksidepress.org/nursing_fundamentals, 2015.

ⁱⁱ Government of South Australia |SA Health, *Why is oral health care important for older people in hospital?* <https://www.sahealth.sa.gov.au>, 01 Dec 2020.

ⁱⁱⁱ Doe Nimish, Priya and Deshmukh. *Oral microbiome: Unveiling the fundamentals*, *Journal of Oral and Maxillofacial Pathology*. 2019 Jan-Apr; 23(1): 122–128.