Utility of the M.O.I.S.T. Model at the Point of Care: A Proof-of-Concept Study

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Background

Annually, wounds affect approximately 8.2 million people in the United States and cost up to $96.8 billion to treat.[1] Despite the high prevalence, cost, and complexity of wounds, most wound care in the US is provided by novice (uncertified) clinicians, who may lack the knowledge and skill required to provide high quality, evidence-based care.[2]

Aim

To test the utility of an adapted version* of the M.O.I.S.T. model, as a point of care wound assessment and treatment, decision-making tool for certified (expert) and uncertified (novice) clinicians. The Model was adapted for a more holistic approach to wound management.

Methods

A three-month proof of concept study was conducted using a structured, automated questionnaire. A convenience sample of participants answered five demographic questions, viewed a 5:34 minutes unbranded M.O.I.S.T. model training video, then used wound images to answer five assessment and seven treatment questions. The study closed with four utility questions and one general feedback question.

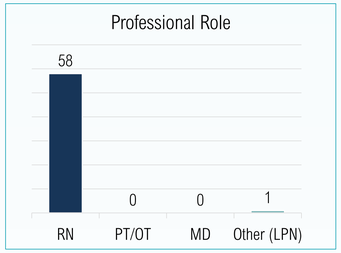
The M.O.I.S.T. Model

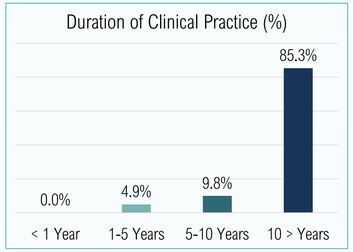
	Original[3]	Adaptations
*	Requires additional models for a holistic approach	Skin assessment as a prerequisite
M	Moisture Balance	None
O	Oxygen Balance	Includes perfusion
I	Infection Control	None
S	Support	Adjunct therapies (SOC)
T	Tissue Management	None

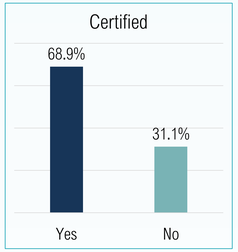
Key: SOC = Standard of Care (e.g., pressure redistribution, offloading, compression, etc.)

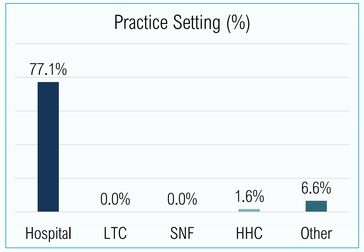
Results

Participant Demographics

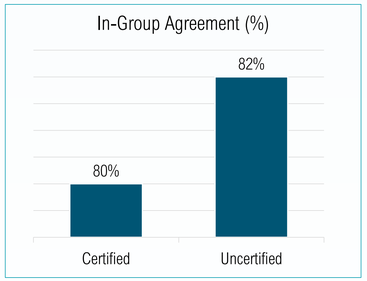




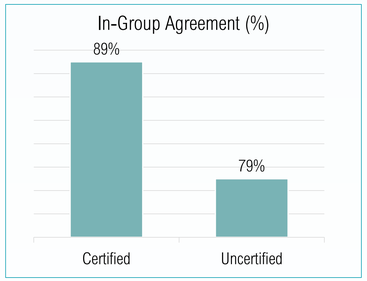




M.O.I.S.T. Model for Wound Assessment



M.O.I.S.T. Model for Wound Treatment



M.O.I.S.T. Model Utility Outcomes

Discussion

For assessment (all wound etiologies), clinicians consistently scored the lowest for Oxygen Balance. This finding suggests that more education is needed around oxygen in wound healing, including recognizing deficits and solutions for supplementation. For wound treatment, the highest variation was among infected wounds. This suggests that more education is needed regarding infection control options for wounds.

General Feedback

- **Uncertified Nurses:** "Innovative"; "Simple"; "Easy to incorporate into practice"
- **Certified Nurses:** "Limited use"; "Oxygen is difficult to identify"; "Useful to uncertified nurses"

Conclusion

The M.O.I.S.T. Model was accepted by certified and uncertified clinicians as an easy-to-use tool. Certified participants see the tool as useful for uncertified clinicians, but more of a hindrance to their own extensive training. The tool also does not recommend specific treatments, which can vary by formulary, experience, etc., and therefore cannot fulfill the need of fully directing the uncertified clinician at this time. This may be an opportunity to further evolve the model.

References

1. Sen C. K. (2021). Human Wound and Its Burden: Updated 2020 Compendium of Estimates. Advances in wound care, 10(5), 281–292. https://doi.org/10.1089/wound.2021.0026
2. Welsh L. (2018). Wound care evidence, knowledge and education amongst nurses: a semi-systematic literature review. International wound journal, 15(1), 53–61. https://doi.org/10.1111/iwj.12822
3. Dissemond, J., Assenheimer, B., Engels, P., Gerber, V., Kröger, K., Kurz, P., Läuchli, S., Probst, S., Protz, K., Traber, J., Uttenweiler, S., & Strohal, R. (2017). M.O.I.S.T. - a concept for the topical treatment of chronic wounds. Journal der Deutschen Dermatologischen Gesellschaft = Journal of the German Society of Dermatology : JDDG, 15(4), 443–445. https://doi.org/10.1111/ddg.13215