Educational Development of Clinical Modules for AI-powered Remote Wound Care
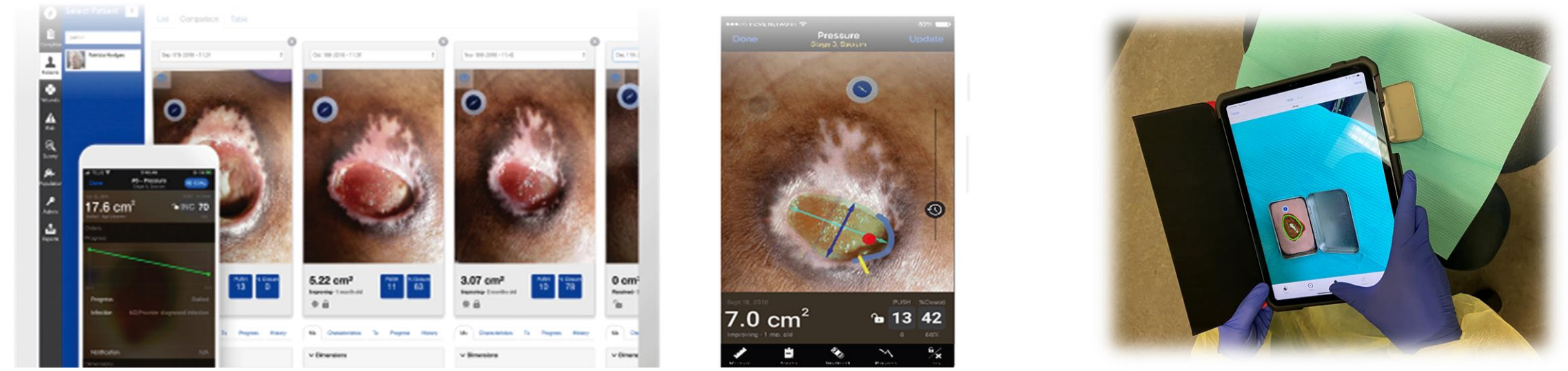
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SWIFT

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INTRODUCTION & BACKGROUND

An education institute has been working collaboratively with an AI-Powered wound management solution as part of a health care consortium. The focus was on integrating technology into wound care practice during the COVID-19 pandemic, to address the challenges faced by patients with chronic all types of wounds. Specifically, those who require wound care in remote, and rural areas with inconsistent healthcare

During the first year of the collaboration, the implementation process and learning management system for the digital wound management solution were evaluated[1]. Clinical knowledge of wound care assessment and documentation were identified as gaps by the consortium. To address this issue the educational partner was selected to lead the development of wound care education modules that could be easily accessible via the learning management system for clinicians using the digital wound management solution on-demand.

SWIFT*App screenshots

PROCEDURE & METHOD

Learning modules are being developed to enhance educational resources for wound care providers and address gaps in wound care training due to low wound education rates[2] and staff turnover[3].

Module one was successfully piloted with key stakeholders (6 clinicians and 4 students). A feedback survey was disseminated upon module completion. The data collected provided guidance on staff education needs, levels of engagement, and continual development in wound education and resource needs.

Key stakeholders included students with 0-1 years of experience and clinicians with an average of 20 years of experience. Module development is ongoing and consists of 6 modules. Modules 1, 2, and 3 are complete. Modules 4, and 5 are in development.

Modules:
1. Tissue wound bed types
2. Wound edges
3. Identifying infection
4. Drainage types, amounts, and when to elevate
5. Wound-specific evaluation and risk scoring
6. Dressing types

Module 1: Tissue wound bed types

MACERATION

Click the hotspots to learn more.

Why does it look like that?
Increased moisture due to excessive *exudate*, improper dressings used, infrequent dressings changes or a combination of all the above.

EXUDATE
Fluid that leaks out of blood vessels into nearby tissues. The fluid is made of cells, proteins, and solid material.

← BACK TO PERIWOUND

RESULTS & IMPLICATIONS

Feedback from stakeholders explores the receptiveness of nurses, wound care providers, and students to access on-demand education and enables educators to better meet their needs in a constantly evolving industry.

User satisfaction
1. Usability
   - 100% completed the module in one sitting and felt that the suggested time for the modules was realistic
   - 75% of student respondents noted that they were able to complete the module earlier than the recommended time
   - 73% strongly agreed the module instructions were clear, it was easy to navigate, and the Industry* academy technology was easy to use
2. Feasibility
   - 100% were able to complete the assessment at the end of the module
   - Module was not difficult, and learners achieved the objectives for the module with the information provided
   - 100% would recommend the training modules to other clinicians

Qualitative feedback
- Descriptions helped learners understand the complexity of wound types and evaluate if an infection is present
- Visual images identified were clear and relevant to identifying the type of tissue
- Module interactivity has made learning easier by breaking it down into smaller pieces

Recommendations for enhanced learning objectives
- Recommended for clinicians and nurses who may not be used to describing tissue type
- Suggested inclusion of additional visual examples of wound complications as there may be many different presentations
- Suggested inclusion of additional content on addressing clinical findings

Implications
Educational gaps identified at the initial stages of this project could easily be bridged through content created and distributed across the LMS learning platforms. Those practicing in the field of wound care would benefit via increased theory and knowledge to manage complex wounds in remote, rural settings, benefitting patient care, and outcomes.

REFERENCES

1 C. Gray, A. Galati, N. McNaughton, S. Hussain (2022), Swift Telewound Care Canada Project: Digital solutions for addressing wound care remotely, SAWC Spring2022, https://acrobat.adobe.com/link/review?uri=urn:aaid:scds:US:224347a7-1ba9-32c4-9a70-e2dfe94413ae
2 C. Gray, A. Galati, N. McNaughton, S. Hussain (2022), Swift Telewound Care Canada Project: Digital solutions for addressing wound care remotely, SAWC Spring2022, https://acrobat.adobe.com/link/review?uri=urn:aaid:scds:US:224347a7-1ba9-32c4-9a70-e2dfe94413ae
3 Kuhnke, J. L., Jack-Malik, S., Botros, M., Rosenthal, S., & McCallum, C. (2021). Early COVID-19 and the experiences of Canadian wound care clinicians: Preliminary findings. Clinical Practice, 12(2), 6.