

Culturally Appropriate Education for International Relief Workers

Can Education on Fluoride Varnish Help Sustain Practice at Medial Mission Sites?

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Background & Significance

- Oral health issues in underserved global communities listed as long-standing World Health Organization priority (Petersen & Ogawa, 2016).
- Fluoride is a useful intervention to prevent and reverse dental decay.
- Fluoride varnish (FV) application is inexpensive, easy to apply, and has high impact value on health. One application= 6 months coverage.
- Education is an underrated component of international relief workers commitment at short term medical mission (STMM) sites.
- Education on oral health interventions positively impacts sustainability of practice in underserved/refugee populations (Keboa et. al, 2016).

Purpose

- Educate on importance of oral health issues and impact of FV to address this need.
- Address sustainability issues at STMM sites for oral health interventions.
- Increase awareness on value of FV and oral health in underserved populations treated at STMM sites.

Study Question & Objectives

Will providing education and training on FV application to international relief workers in a culturally appropriate manner help to sustain the practice at STMM sites that care for the medically underserved?

Main Objective

- To sustain FV practice and awareness at STMM sites in Haiti & Greece through evidence-based education

Sub Objectives

- Workers will educate subsequent relief workers on FV at initial site.
- Workers will continue the FV practice or spread education at next STMM assignment.
- Education will be tailored to application & importance of FV in a culturally appropriate manner.

- P** International relief workers; may or may not have medical background.
- I** Evidence-based education on FV application & importance of use
- C** Standard of care; no education on FV.
- O** Improved awareness on oral health of underserved populations, benefits of FV, sustainability of practice at STMM sites, & dissemination of FV education or practice across other STMM sites.

Roger's Diffusion of Innovation

Components of DOI Model	Key Component of FV at STMM
Innovation	Fluoride varnish is evidence-based, easy to use, cost-effective, impactful on declining oral health in underserved populations.
Communication	Education will be delivered in a variety of formats (oral, written, demonstration). Education will also be available in five targeted languages to accommodate for cultural considerations.
Time	Adequate time delivering intervention on site and for questions. Delivery of follow-up surveys at three and six months to allow for knowledge saturation.
Social System	Consideration of external and internal factors including personal value of oral health and fluoride varnish education as useful, managerial influences, time constraints secondary to 'higher priority' issues at STMM such as disease outbreaks.

Table adapted from Moseley (2004); Sanson-Fisher (2004).

"Great investment for health."

"Wish more people understood importance of dental care and impact on overall health."

"Valuable project for unserved populations."

Educating on tooth brushing in Haiti; Demonstrating FV treatment to international relief workers at One Happy Family, Lesvos, Greece.*

**Faces blurred for anonymity.*

Methods

- IRB approval was obtained from University at Buffalo.
- FV education was delivered during a brief educational workshop at each STMM site to any international relief worker that would like to participate.
- Haiti (n=10), Greece (OHF community center) (n=7).
- Any member of relief worker team could participate.
- Two surveys, at three and six months, will be delivered electronically to participants that supplied preferred contact methods.
- Surveys were translated from English to French, Creole, Greek, Farsi, Turkish, & Spanish.
- Responses were anonymous to protect privacy.
- Three month data presented here.
- Plan for six month data collection in October 2018.
- Survey results were averaged & percentages of means calculated.
- Frequency table of means & percentages for data analysis.

Results

Means and Percentages of Frequency of Fluoride Varnish Education 3-Month Follow-up Survey Results

Survey Question (n=9)	Mean	Percentage (%)
Age		
• 20-29	6	67%
• 30-39	1	11%
• 50-59	1	11%
• 60-69	1	11%
Gender		
• Male	1	11%
• Female	8	89%
Do you think FV application is useful?		
• Yes	8	89%
• Unsure	1	11%
Do you see fluoride varnish application as a useful practice for those you serve?		
• Yes	7	78%
• Unsure	2	22%
Would you be willing educate on fluoride varnish?		
• Yes	7	78%
• No	1	11%
• Unsure	1	11%
Have you educated other relief workers on fluoride varnish?		
• Yes	2	25%
• No	6	75%

Implications

This project identified that underserved areas would highly benefit from FV intervention and helped to determine if FV application would be a sustainable practice through education.

- Based on survey results, after receiving the educational session majority of participants concluded that FV is a useful practice and would be willing to continue this practice at their current or future sites
- Education proved to be key in the success of sustainability of FV practice at STMM sites
- Future projects can use this information when determining how to utilize education for implementation of sustainable interventions
- Further research is needed on the impact of availability of FV on the sustainability of practice after receiving the educational component
- Limitations include small sample size, transient nature of mission work & ability of participants to respond.

The Essentials of Doctoral Education for Advanced Nursing Practice Addressed

I. Scientific Underpinnings for practice

III. Clinical Scholarship and Analytical Methods for Evidence-Based Practice

VI. Interprofessional Collaboration for Improving Patient and Population Health Outcomes

VII. Clinical Prevention and Population Health for Improving the Nation's Health

VIII. Advanced Nursing Practice

References

- Keboa, M. T., Hiles, N., & Macdonald, M. E. (2016). The oral health of refugees and asylum seekers: A scoping review. *Globalization and Health, 12*(59), 1-11. doi: 10.1186/s12992-016-0200-x.
- Moseley, S. F. (2004). Everett rogers' diffusion of innovations theory: Its utility and value in public health. *Journal of Health Communication, 9*(sup1), 149-151. doi:10.1080/10810730490271601
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