

Honors Thesis Proposal

Working Title

Qualitative Analysis of Caregivers Receiving an Educational Intervention on RHD in Samoa

Project Purpose

This project will serve as a qualitative data analysis of data collected from Samoan caregivers during the 2019 Rheumatic Relief Internship. The primary aims of this project include:

1. Analyze responses to the surveyed population to determine the reached demographic, source of health information and access to care.
2. Describe the caregiver demographic reached by the survey results.
3. Discuss strengths and implications of results to guide future health education among Samoan caregivers.

Project Importance

Public health's long-term mission is to focus resources and time preventing disease, prolonging life, and promoting health through organized efforts within organizations, communities and individuals. Public health improvement frequently involves collaborative efforts between health professionals and community members in order to find effective and sustainable solutions to health issues found in local communities. Similarly, global public health efforts often include a combination of in- and out-of-country planning, implementation and evaluation. With the public health mission in mind, the Rheumatic Relief Program has implemented public health efforts following a best practices cycle providing rheumatic heart disease (RHD) information to Samoan caregivers and children.

Samoa remains a country of interest because of the high prevalence and incidence rates of rheumatic heart disease among youth. While there are many factors contributing to a single case of rheumatic heart disease, the Rheumatic Relief program focuses on single preventative factors at a time. The current phase of Rheumatic Relief research focuses on evaluating and changing the perceived severity of disease among Samoan caregivers. This is done through health education for caregivers at the schools where heart screenings are conducted. There is limited information available regarding health promotion programs involving the Polynesian islands, however, there are programs implemented within culturally similar demographics that imply an effective foundation for best practices. This evaluation will help researchers understand the demographic being reached through program efforts and how to guide future health education among Samoan caregivers.

Project Overview

The following information serves as a summarized background for the reasoning behind the Rheumatic Relief program and an explanation of where collected data came from and how it will be analyzed.

In 2015, evaluation of a national school-based human papillomavirus vaccine (HPV) campaign in Fiji showed programs utilizing a community based approach increased the acceptance and compliance of parents allowing their children to receive a HPV vaccination (La

Vincente et al., 2015). HPV program developers also considered how to help parents and children move through the health belief model to achieve self-efficacy, which allowed their child to get the HPV vaccination (La Vincente et al., 2015). It is important to recognize parents as a force of change because of the influence they have over the medical care of their children. Due to age and experience, children have limited autonomy over their personal decision making, which often leads them to rely on parents, or guardians. Furthermore, there is limited information available for health promotion programs involving youth within the Polynesian islands, however, there are programs implemented within culturally similar demographics that can be used as a foundation for best practice.

Current research has also found teaching methods involving health professionals, such as community nurses, (Ayres & Pontes, 2018; Lane et al., 2018) combined with students practicing skills (Ayres & Pontes, 2018; Kobel et al., 2017) to be an effective method of health education. Similar to the Fijian HPV vaccination program, health promotion efforts that are integrated with the support of family, community and government are more successful at creating health habit changes (Dittus, Miller, Kotchick, & Forehand, 2004; Haignere, Freudenberg, Silver, Maslanka, & Kelley, 1997; Hurst & Nader, 2006). Furthermore, the best location to work with youth has been through collaboration efforts with school systems and parents (Arriscado Alsina, Muros Molina, Zabala Díaz, & Dalmau Torres, 2015; La Vincente et al., 2015; Lane et al., 2018).

The Rheumatic Relief program has used past research recommendations and identified a respected community representative to use when passing along health-related information to caregivers in a school setting. During a 2018 pilot study, researchers discovered principles were respected community representatives within local villages and among governmental organizations such as the Ministry of Health. Principles were important keys to change. This research gave reasonable evidence to collaborate with principles and use the respected position of school principals to recruit, educate and survey Samoan caregivers.

Within the last two years, Rheumatic Relief health promotion efforts have focused on caregivers of Samoan children. Program planners have worked with the Ministry of Health to visit and educate community members belonging to selected primary schools. Selection of elementary schools is done in collaboration with the Samoan Ministry of Health, but also limited by their approved list of designated schools. During the two- week long 2019 Rheumatic Relief trip a pre-/ post- evaluation survey of 7 questions was given to each caregiver who attended an entire principal guided health education session regarding rheumatic heart disease. A total of 275 responses were collected during the caregiver-principle health education portion of the trip. According to determined variables of importance (age, gender, source of information etc.), collected responses will most likely be analyzed using a cluster analysis.

Gathered information can provide valuable information about the demographic reached through RHD educational efforts. As a part of analysis, I plan to create a demographic profile of individuals reached during the two weeks of data collection. Furthermore, the collected data can provide information about the access and preferred source of information of caregivers living on the two main islands of Savai'i and Upolu. This information will be useful for future trips of the Rheumatic Relief program because students will be able use information provided to ensure individuals needing education the most are receiving it. Pre-/post- data collected focuses on the

initial knowledge of participants. This information can give a realistic understanding for researchers to use when working with the intrapersonal level of the community on the islands of Upolu and Savai'i.

Qualification of Thesis Committee

Faculty Advisor(s): Lori Allen, PhD/ Len Novilla, MD, MPH (Faculty Advisor & Coordinator)

Professor Allen is the co-founder of Rheumatic Relief and professor in BYU's department of Biology. Professor Allen's research and educational interests remain focused on global public health promotion and education among Samoan youth and caregivers. Professor Allen has experience working with students on research and dissertations. During Winter and Spring Semester 2019, I worked closely with Professor Allen to prepare teaching materials and an internship research report. I am currently working with Professor Allen on a collaborative research paper regarding the data collected during our research trip.

Faculty Reader: Richard Gill, PhD

Professor Gill is an associate professor and department chair of BYU's department of biology. He received his PhD in Ecology from Colorado State University and taught at Washington State University until 2008 after which he became an associate professor at BYU. Professor Gill's research interest is in conservation biology. As part of the executive board of the BYU Rheumatic Relief Program, Professor Gill also acts as a mentor for students participating in the Rheumatic Relief Internship program.

Honors Coordinator: Len Novilla, MD, MPH

Professor Novilla is an associate professor in BYU's department of public health. She teaches both graduate and undergraduate courses such as Infectious & Chronic Disease, Public Health & Primary Care, and Mentored Research. Prior to teaching at BYU Professor Novilla was a Senior Research Manager for the Thrasher Research Fund managing several international and U.S.-based pediatric research grants. Currently, Professor Novilla participates in the Brain, Family and Health Lab providing research opportunities for students to investigate the impact of social determinants of health among individuals and communities. I have worked in the Brain, Family and Health Lab and taken a class with Professor Novilla.

Project Timeline

September 27, 2019

Obtain Thesis approval.

November 1, 2019

Begin analysis of collected research data.

December 13, 2019

Finish Data interpretation and Clean-up.

January 6, 2019 2020

Compile data into 3-4 data charts for final thesis.

February 1, 2019 2020

Complete first draft of report.

February 15, 2019 2020

- Complete second draft of report.
- Schedule thesis defense day

February 21, 2019 2020

Submit Thesis Defense Information Form.

March 11, 2019 2020

Complete Thesis Defense.

March 13, 2019 2020

Submit Thesis Submission Form.

March 20, 2019 2020

- Participate in Thesis Poster Presentation
- Submit Completed thesis

Cumulating Experience

Rheumatic Relief's mission is to decrease the prevalence and incidence of rheumatic heart disease within the youth population of Samoa. Current program activities are successful because of the evidence-based theories used to provide a reliable foundation for future program development. While past team efforts have invested in treatment and youth education, evaluation is an important part of making program efforts effective. As Rheumatic Relief continues to address RHD, the results of this project can help further educational efforts among caregivers specifically within Samoa and culturally similar nations. The evaluation of the demographic profile of those who are living within the two main islands of Samoa can help explore new traditions in intervention science and health promotion delivery. This experience is also important to me because working on this thesis is an experiential learning opportunity to help prepare for graduate school. I also plan to seek an opportunity to present at a conference, such as the honors conference.

IRB Approval

Rheumatic Relief functions under IRB approval, IRB approval # is X130180. All research assistants, including myself, are CITI trained.

Funding

There is no request for funding regarding the project itself, but I may request funding at a later point to support a conference presentation.

References

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Linda Tovar

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