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Jacqueline Quintero

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Oral Health Program Assessment

Jacqueline Quintero

Oral Health Program - Monterey County Health Department

Collaborative Health & Human Services

Department of Health Human Services and Public Policy

California State University Monterey Bay

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Author Note

Jacqueline Quintero, Department of Health Human Services and Public Policy, California State University Monterey Bay. This research was supported by the Monterey County Health Department. Correspondence concerning this article should be addressed to Jairo Hernandez, California State University Monterey Bay, 100 Campus Center, Seaside, CA, 93955. Contact: jaquintero@csumb.edu.

Abstract

The Local Oral Health Program is a chronic disease prevention program focusing on providing educational workshops to parents who have children enrolled in schools with rates of 80% or higher of free or reduced lunch. Studies and surveys have revealed that low-income children have more cavities than those children in moderate and high-income families and they are not being addressed. The purpose of this project is to assess the effectiveness of the Oral Health Program which provides parents with educational workshops regarding dental services, government assistance, oral hygiene, and nutritional information. Post-surveys were distributed and collected after each workshop by the program intern and then evaluated collectively. Over 60% of the participants reported that they learned a lot regarding oral health and hygiene.

Participants also stated that they would like these workshops to be reoccurring.

Recommendations for the program include the development of an online resource guide that includes access to online informational resources about topics discussed in the workshops.

Keywords: oral health, evaluation, low-income, education

Agency & Communities Served

Monterey County's Local Oral Health Program is a government agency whose mission is to improve oral health outcomes in Monterey County. It addresses oral health needs through prevention, education, and capacity building. The services such as dental screenings and oral health workshops are free of cost to the community as the program receives its funding from the California tobacco tax. They have partnered with other local organizations such as dental clinics, child development centers, and radio stations to reach as much of the county as possible informing the community about their services.

The populations prioritized by the Oral Health Program include schools who have a rate above 80% of students enrolled in free or reduced lunch and.. In these schools, presentations are given to students between the grades of kindergarten to second grade during class time and to their parents after school hours. Workshops detailing oral hygiene, dental visits, and nutritional suggestions to maintain good oral health are provided at these selected schools for parents to gain insight on. The Pew Research Center released an article stating that over 61% of children who are low income and were from the ages 6-11, all lacked dental sealants despite it being covered by Medi-Cal and Medicaid (PEW, 2018). A great part of the workshop consists of explaining to parents the topic of sealants and varnish, its benefits, and other services covered by Medi-Cal. These topics may be unfamiliar to many as the majority of the participants are Hispanic and/or Latino immigrants and may not have a strong understanding of the healthcare system used in the United States.

Problem Model Background and Literature Review

Problem Statement

Low-income children have a higher risk of tooth decay and gum disease. Untreated cavities in children can lead to very serious, long term oral health issues as they grow into adolescents and adulthood. Jackson et al. (2011) reported young students who have not established a consistent habit to practice tooth brushing and flossing to score up to a whole letter grade less than their classmates due to emergency dental care, tooth aches, and lower self esteem.

Lack of awareness is largely responsible for poor oral health choices and it can lead to the development of worsening oral hygiene. The National Institute for Health Care Management (NIHCM) Foundation (2021) reveals oral health disparities are at high rates within low-income families. While oral health is excluded from primary care, it is still an important aspect of our health. Prevention programs can help educate communities who do not have the resources of providers that inform them about dental care.

Table 1: Problem Model

Contributing Factors	Problem	Consequences
Little awareness and practice about oral hygiene habit at home	Oral health disparities in children and from low-income families	Expensive treatment as a adult (insurance rates)
Access to dental clinics		Children develop fear of dentist (emergency visits negative stigma)
Lack of education with		Generational oral health

patient rights & health literacy		neglect
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Contributing Factors

Dental care is not often discussed in detail with patients from primary care providers since dentistry was developed separately from primary care institutions. Business Wire (2022) reported dental care needs to be sought in addition to primary care but is often overlooked in insurance plans by low income families. As a result, healthy habits are not developed and oral health is neglected. Moreover, Colgate states that ethnic groups such as Hispanic and Latino, often consider declining oral health as a normal part of aging and do not seek professional help as often (Sinclair 2021).

Those families with children who live in rural areas are at higher risk of having poor oral health and overall health. Moreover, low-income families who live in rural areas may also lack the means to obtain some form of transportation to their nearest dental facilities accepting Medi-Cal that are already minimally accessible. Jo Henderson-Frost (Cohen, 2022) notes this on a nationwide scale stating that children who reside in rural towns and are recipients of Medicaid have exacerbating oral health disparities due to the limited insured services they qualify for. Children of ethnic backgrounds who are low-income are greatly suffering from the systemic inequities of healthcare and it is being reflected in their oral health. Allison Corr and Josh Wenderoff (2022), completed an analysis of outcomes of data among third grade students revealing that Hispanic children, compared to their White counterparts, were up to 1.5 times more likely to have untreated decay.

The relationship between oral health literacy combined with knowledge of patients rights and oral health outcomes has been shown to be directly proportional. Parents of children who are not aware about their right to decline services or seek second and third opinions are more susceptible to having negative experiences with dentists. Jagan Kumar Baskaradoss (2018), conducted a survey analysis consisting of 150 participants and the results concluded those who obtained lower oral health literacy had poorer periodontal oral health. A previous study conducted by Meggan M.H. Wehmeyer et al. (2012), resulted in similar results proving that oral health literacy is not a well known topic even among educated individuals resulting in poor oral health.

Consequences

When oral health is not prioritized or treated with the adequate care, children grow up to be adults with untreated decay that can result in very expensive treatment. While dental coverage is available for a higher insurance rate, most individuals who are low-income are not willing to select that insurance package leaving dental and vision care discarded. Marko Vujicic et al. (2016) reported that 4.3% of children nationwide were not receiving adequate dental attention due to cost. Other health problems are also at stake with oral health neglect. Researcher Robert W. Fornalczyk (2019) conducted a study in a dental clinic in Pennsylvania that revealed over 30% of the adults who had untreated tooth decay as children showed 3 out of 4 signs of oral disease.

Untreated tooth decay among children can lead to emergency visits that leave them traumatized. As a child who only has a visit to the dentist when there is a toothache can develop a fear due to the painful experiences. Cleveland Clinic (2022), reported that those who have had bad experiences at the dentist are prone to have anxiety when they need to revisit and may

potentially develop a phobia. Consequently, as these individuals may have children, their anxiety can hinder their children's oral health. Smiles and Dentistry for Kids, a dental clinic serving children, says that fear of dentists may sometimes occur based on the negative reactions of others, such as their parents, shows, etc.

Neglect towards dental care and oral hygiene from parents to their children results in a generational cycle of poor oral health. As children, those who are experiencing cavities and other oral diseases are robbed from their confidence and their motivation. As adults, those who did not pick up on healthy oral habits have more medical expenses due to emergency dental visits that require immediate treatment (UIC College of Dentistry, 2019). Dara M. Shearer and W. Murray Thompson (2011) reported that children whose mothers had greater sums of the number of decayed, missing (due to cavities), and filled teeth in the permanent teeth (DMFT) score were all reflected on their children who all had cavities as well.

Project Description and Implementation Process

Project Description

The Impact of Community Outreach Addressing Oral Health Disparities in Monterey County will assess the effectiveness and efficiency of Monterey County's Oral Health Program. This will be beneficial to the program because it will demonstrate the strengths and weaknesses of the prevention framework that is being implemented to address the oral health disparities in Monterey County. As this is revealed, room for improvement will be provided in the following grant. Workshops for parents to attend were coordinated alongside the school site's parent liaison and the program coordinator. There are # workshops that will be evaluated in this project. The workshops were scheduled based on the program and the school's availability and took place over the course of two semesters. Participants of each workshop were provided with a survey

allowing us to accumulate 54 responses. Workshops will continue to be held as the semester continues but for the sake of this project the last workshop to be considered in this evaluation was held on February 8th, 2023. The surveys consist of 5 open ended questions and one closed ended question. For this evaluation project, only 4 out of the 6 questions were selected for providing more insightful performance measures. A copy of the complete survey can be found in the appendix as Appendix B.

Project Justification & Benefits

Evaluation of the Oral Health Program is an essential step in the assessment process of a prevention program to obtain a systematic analysis that can be used after each grant and measure the success of its current interventions that aim to reduce health disparities. Current interventions in these workshops include educational workshops for parents about oral hygiene, tutorials on toothbrushing, flossing, information on dental sealants, information about Medical application assistance programs, and nutritional suggestions. The evaluation of survey responses will highlight the methods that have succeeded and those that can improve. This is one of the best practices to ensure that the program is providing its community with updated and adequate information that families will continuously benefit from. Informational and statistically credible prevention programs are showing to be effective in increasing wellbeing and health (Addiction Policy Forum, 2020) and similar strategies have been used across the globe. In China, oral-health focused prevention programs in conjunction with the exposure of hygienic habits for oral health have shown the ability to positively change the oral health behavior in children to prevent tooth decay (Ron et al., 2003).

This project will allow the agency to determine what material is beneficial and what material should be updated. The evaluation process will use raw data from participants to

highlight aspects of the workshop that have either helped or hindered their knowledge about oral health. As a whole, low income families within Monterey County will be having more insight on the causes of oral health issues and resources to ask for help regarding oral health.

Expected Outcomes & Assessment Plan

The effectiveness will be assessed through survey responses from participants who attended the parent workshops and completed a survey. The expected outcome is that at least 60% of the participants who attended the oral health workshops learned something new and that the participants gained knowledge on community resources, the impact of nutrition on teeth, and the importance of visiting a dentist.

The survey consists of five open ended questions and one closed ended question. Common themes will be pulled from the responses to open ended questions to highlight qualitative data. A pivot chart will be applied to the closed ended question, to assess whether participants gained knowledge as an outcome of attending the workshop. Open ended questions will be analyzed for common themes and direct quotes will be presented for performance measures.

Implementation Process

This capstone project will consist of the evaluation of the effectiveness of Monterey County's Oral Health Program. The effectiveness will be assessed through survey responses from participants who attended the workshops and completed a survey. The workshops were held at selected schools within the Salinas City Elementary school district which have high rates of students enrolled in free or reduced lunch. Parent liaisons will be the middle men to ensure parents are informed about the dates and times of workshops. Post surveys are distributed to the participants after each workshop and then collected. The majority of the workshops are held in Spanish and the surveys are completed by Spanish speaking participants. If needed, the surveys

are transcribed into English and then into a spreadsheet for analysis of the responses. The open ended questions will be analyzed for common themes. The closed ended questions will be presented on a graph. The Project Implementation Plan Table can be found in the appendix as Appendix A.

Project Results

The Local Oral Health Program is working towards reducing the number of oral health disparities within Monterey County by speaking about the importance of healthy oral habits, promoting health literacy and patient rights, and providing access application assistance for community resources. The expected outcome is that participants gained access to resources to help establish or strengthen their relationship with a dental home and fill knowledge gaps regarding oral care.

The first performance measure utilized asks participants to state what was liked best out of the entire workshop to generate their first impressions from it (Table 2). Common themes were identified from the responses regarding the first survey question for evaluation data.

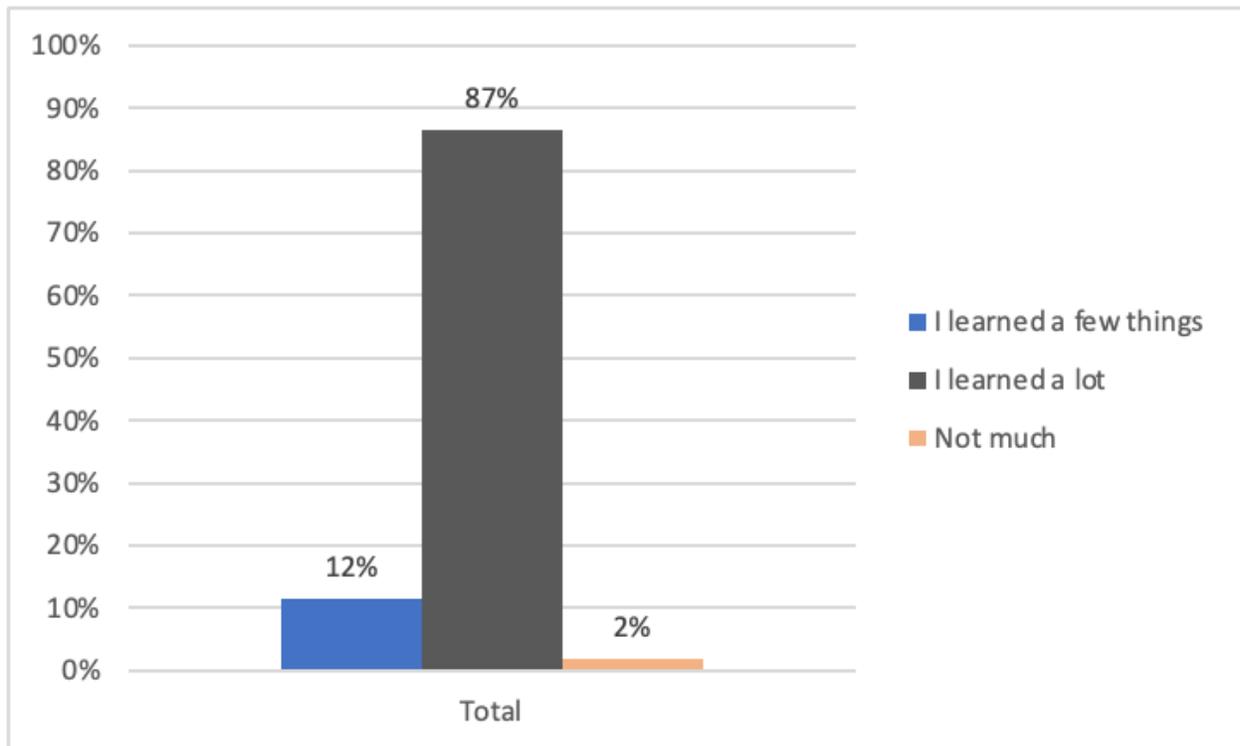
Table 2. Common themes identified from what participants liked best about the training.

• Sealants	• Oral hygiene
• Medi-Cal	• Nutrition
• Cal-Fresh	• Dental visits

The survey asks participants to select their level of new knowledge post workshop (Table 3). This is a closed ended question providing three terms to describe the level of knowledge about oral health gained post workshop. Over 87% of respondents answered that they learned a

lot more, 12% answered that they learned a few things, and only 2% answered that not much was learned.

Table 3. $n = 54$ How much parents learned from the workshop overall.



Suggestions for improvement were asked from the participants in the post survey to gain feedback on what themes the community would like the Oral Health Program to cover in future presentations. Table 4. below displays the top three most mentioned concerns.

Table 4. Other oral health topics participants are interested in learning.

• Application assistance
• How to properly perform oral hygiene
• Braces

Finally, we asked respondents to freely name any other opinions or feedback they would like to provide about the training activity (Table 5). Overall, the positive themes were positive.

Table 5. Any other comments regarding the parent workshop.

<ul style="list-style-type: none"> ● Continue holding these workshops
<ul style="list-style-type: none"> ● Information was interesting and valuable
<ul style="list-style-type: none"> ● Gratitude

The project met all the expected outcomes and exceeded the number of how many participants who learned new information about oral health. The Local Oral Health Program was able to achieve this with ease because of the availability of parents and schools willing to participate. Workshops are coordinated very easily with schools who would like the program to hold a workshop at their site and the willingness of the attendees to complete the post survey allowed for a more profound evaluation.

Conclusion & Recommendations

As seen from the responses, many of the participants appreciated the workshops because of the ability of them to provide low-income parents with necessary information about oral health and its significance. Many of the participants are immigrants from another country, coming to the U.S. not understanding English and let alone the healthcare system that is provided. The contributing factors to the disparities we see among minority children are due to the gaps in knowledge that these families have about health, dental visits, and community resources for accessing a dental provider.

The ultimate recommendation is that the agency focuses on moving on to a more technological approach for sharing information from the workshops. With potential online workshop presentations, an online resource guide with links to questions about community help available can help parents find a dental provider or simply revisit a topic that was discussed in the training. Lastly, online incentives can be used to gain parents to complete online surveys.

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Appendix A

Task	Timeline	Parties Involved	Materials/ Services Needed	Completed Product
Schedule parent workshops at schools	Throughout the semester	School liaisons, mentor, intern	Communication Via email, availability from all parties	Confirmed date, time, and language for parent workshop (Eng. or Spn.)
Prepare handouts for attending participants	As scheduled workshops are presented	Intern	magnets, sealant informational pamphlets, pens, surveys, envelopes for surveys	Handouts are given to participants and completed surveys are collected
Translate paper surveys in Spanish and input into excel spreadsheet	Within one week of presentation	Intern	Post workshop surveys, pens, envelop	Translated surveys will be in Excel
Determine qualitative themes in survey responses	April 7th	Intern	Excel sheet with surveys, selected responses from surveys to represent theme	Quotes from participants will be used to assess workshop effectiveness
Create pivot table value for close-ended survey question and create chart	April 7th	Intern	Survey responses, -I didn't learn anything -I learned a few things - I learned a lot	Create a diagram with results

Appendix B

Oral Health Workshop

Date:

Time:

School/Agency:



Instructions: Please answer the questions below by circling the correct response and/or writing your comments.

1. What did you like **the best** about the training? _____

2. What did you like **the least** about the training? _____

3. In the box below, please enter 3 words that describe your experience during the training.

4. **Overall how much did you learn about oral health?**

Not Much I learned a few things I learned a lot

5. Is there another oral health topic that you are interested of learning? If so, please specify.

6. Please enter any other comments you may have about this training activity:
