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Research Article

Improving Participation in a School Based Dental Sealant Program - A Focus Group of Parents

Divesh Byrappagari* and Diakonov GA

Division of Dental Public Health and Outreach, University of Detroit Mercy School of Dentistry, USA

***Corresponding Author:** Divesh Byrappagari, Associate Professor, Division of Dental Public Health and Outreach, University of Detroit Mercy School of Dentistry, Detroit, MI, USA.

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Abstract

Dental Caries continues to be the most common chronic disease affecting school aged children in the United States. School based dental sealant programs have been effective in preventing dental caries in school aged children. The purpose of this qualitative study was to identify strategies to improve the participation of elementary school children in a School-Based Sealant Program. Five focus groups were conducted with parents and/or guardians of students who attend the schools that participate in the school-based sealant program. The focus group discussions were audio taped and the main findings were identified and documented in a standardized template. The data were analyzed using thematic analysis. The focus groups provided an insight into parents' opinions and perceptions of dental needs and barriers to receiving dental services at school. The perceived strategies to promote increased participation in the school-based program included the following themes: communication, marketing, incentives, and parent involvement. Parents identified several barriers that prevented them from participating in the program and suggested changes to the program to increase participation.

Keywords: *Child and Adolescent Health; Dental Health; School-Based Clinics; School Health Services; Dental Caries; Pit and Fissure Sealants*

Introduction

Schools are an important setting to promote health and provide health care services to children as approximately 50 million children are enrolled in elementary and secondary schools in the United States [1]. There is an abundance of research that shows that the healthy students have better academic outcomes. Untreated dental caries can hinder a child's ability to learn at school and lead to missed school day and lower grades [2-4]. It is estimated that approximately 51 million hours per year are loss due to oral health problems. Furthermore, families who live 200 percent below the poverty line are less likely to have seen a dentist within the year and are twice as likely to have untreated decay versus families above the poverty line [5,6].

Dental sealant has shown to prevent dental caries, is cost effective, yet underused as a preventative measure to achieve dental health [5-8]. Approximately 90% of dental caries occurs on the chewing surface of permeant molar teeth; two years after dental sealant placement caries is diminished by 81% and continue to be 50% effective after four years. Studies report preventative services are cost-effective

especially when delivered to children identified as high caries risk [9]. The Michigan Department of Community Health report, Count Your Smiles, determined children residing in Wayne County had the highest rate of caries experience and untreated decay. The report indicates that only 28.3% of third-grade children in City of Detroit have dental sealants which well below the Healthy People 2030 goal of 42.5%. The report also highlights the persistence of preventable dental disease at alarming rates in the region. [10].

Schools provide an opportune system to integrate oral health messaging, education and services to children and their families, especially those in the lower socio-economic strata. Integrating oral health services into the school curricula and support services can be a cost-effective way to improve children's oral health. School-Based Sealant Programs (SBSP) have shown to be effective in increasing the prevalence of sealants and reducing disparity in sealant prevalence among low-income children who might not otherwise receive regular dental care [5,11,12]. Most of the SBSP operating in the U.S. provide the services at no cost to the parent. Participation in SBSP requires parental consent and return rates for the consent form has decreased in the school program operated by the School of Dentistry.

Purpose of the Study

The purpose of this qualitative study was to identify strategies to improve the participation of school children in the School of Dentistry's SBSP. The solutions derived from this study would be useful for similar programs struggling with low participation rates.

Methods

IRB approval was obtained and focus groups were conducted to explore participant's familiarity, attitudes, and opinions about the School of Dentistry's SBSP. An information sheet was shared with the schools that participated in the SBSP which requested assistance in enrolling parents or legal guardians of children who attend the respective schools. A semi-structured focus group guide was developed by adapting themes and questions from previous focus groups conducted in similar school programs. A fifty-dollar gift card was provided as an incentive for the participation.

A total of five focus groups were conducted between June 2015 and February 2016, one at each participating school. The focus group participants consisted of parents or legal guardian who had the ability to enroll children at the school in the SBSP. Each group lasted approximately one hour and consisted of between six and 12 people. All groups were conducted by a facilitator and co-facilitator, field notes were taken, and audio digitally recorded and transcribed. No identifiable information was recorded or retained. After participants introduced themselves, the facilitator read a pre-written summary description of the school program and its activities. A focus group guide was used to conduct a structured discussion; participants were prompted with questions when the discussion did not start or continue spontaneously. After each focus group session, both facilitator and co-facilitator debriefed, focusing on the most important topics raised, different ideas, differences between previous focus groups, unexpected findings, and overall impressions of the session. The main findings of the focus groups were identified and documented in a standardized template. The data were analyzed using thematic analysis method for qualitative data.

Results

Five focus groups of parents were conducted which included 49 participants. Most of the participants were African American and female. Parents' opinions and perceptions of barriers to receiving dental services and strategies to address them were categorized under the following themes: communication with parents/guardians, marketing the program, incentives for participation, and parent involvement in planning (Figure 1).

Communication: Participants indicated there could be improvements to how the SBSP communicates with parents about the program. They suggested including program announcement in school newsletters, setting up dental awareness fairs at schools, using emails and text messages to share information with parents or guardians about upcoming SBSP services. Participants were strong advocated for us-

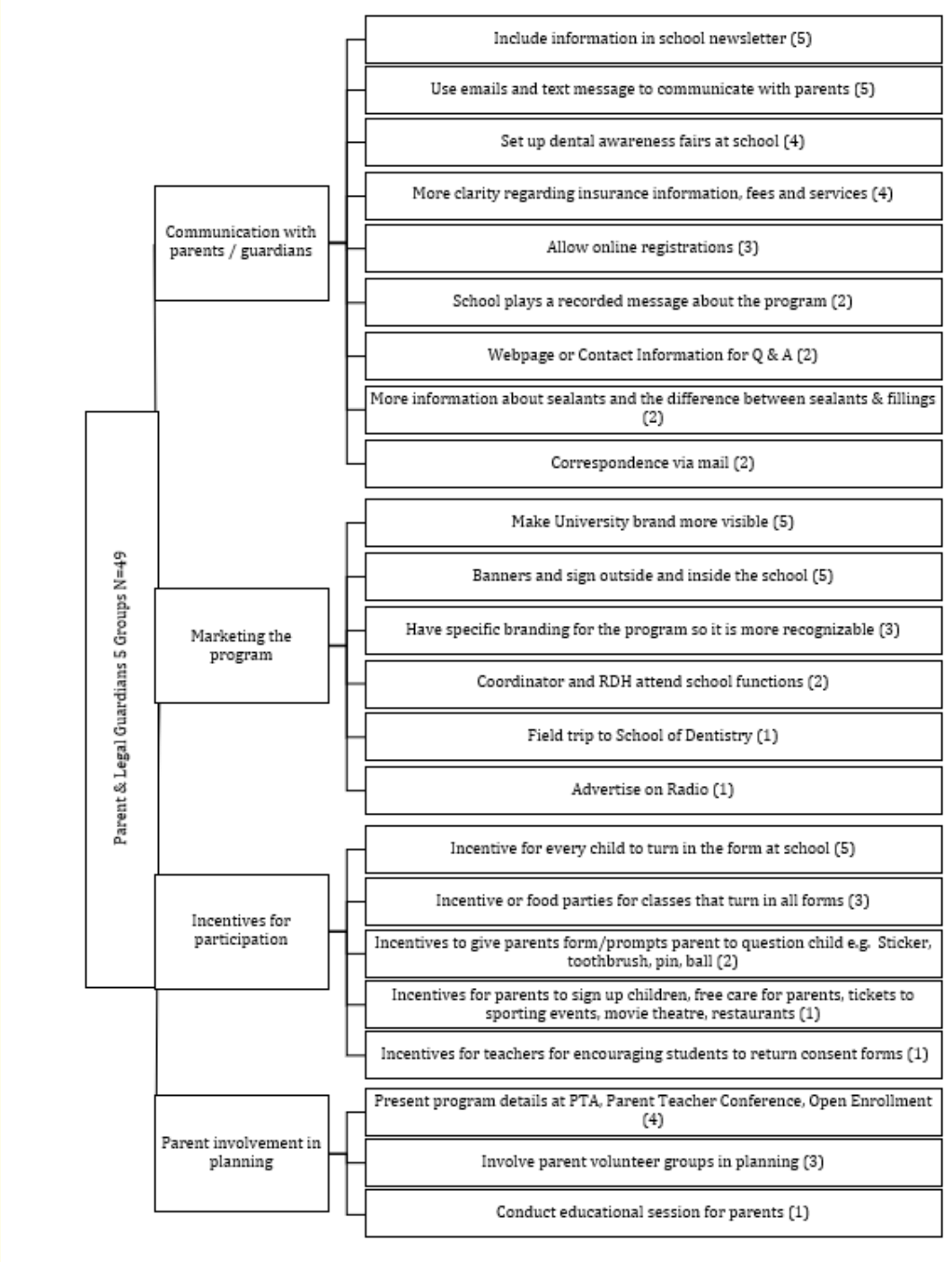

Figure 1: *Themes emerging from the focus groups.*

Note: The number in parenthesis (n) is the number of focus groups that the suggestion was mentioned/discussed.

ing electronic communication tools and social media. Participants also discussed the lack of clarity about fees and insurance information as a reason for not signing up their child for services. Even though the services were advertised as free for children without insurance, parents indicated that questions about insurance information on the consent form confused them and discourage them from signing up for the services.

Marketing: Participants felt that the University and the program branding were not prominent in the material that were sent to them. They suggested that the program display banners and signs inside and outside the school so the parents are aware that the program is at the school which would encourage them to look out for consent forms and sign-up their child. Participants also indicated that the visible branding also helps with alleviating concerns with credibility of the dental provider and the services. They also suggested that the program coordinator and the dental hygiene provider attend school events on a regular basis to promote the program and familiarize themselves with the parents and guardians at the events.

Incentives: Majority of the participants from all five groups agreed that the major obstacle to participation in the SBSP was receiving the consent forms from their child. Most of them indicated that the children, especially those in the lower grades might not remember to show the consent form to their parents or might misplace or lose the form before they get home. To mitigate this issue, participants from all focus groups strongly recommended providing incentives to encourage both the child and the parent to turn in a consent form. They suggested providing incentives for individual child along with incentives for the class with most returned consent forms to encourage children to get the consent signed from parent and turn it in at the school. Providing a branded incentive (e.g. sticker, pin, etc.) along with the consent form would prompt the parent to query the child about the consent. They also recommended providing incentives to parents (e.g. discounted or free dental care) to encourage them to sign up their children. Participants also felt that providing a small incentive [such as a gift card] to teachers would encourage them to be more actively involved in promoting the program and following up with the children about turning in signed consent forms.

Parent involvement: Participants explained that involving them in the planning might be helpful as they can provide more insight about what might work in a particular school to increase participation and they can also use the peer groups to encourage other parents to sign-up their child for the program. Several of the schools had parent volunteer teams that could assist increasing awareness among the parents about the importance and need for signing up for the preventive services. Participants also suggested that educational sessions for parents at school events to increase their knowledge about oral health and how it affects general health and learning in schools might improve participation in the SBSP.

Discussion and Conclusion

Oral health care remains the greatest unmet health need among U.S. children [13,14]. Untreated dental disease in children can lead to pain and infection, missing school, trouble eating, talking, socializing, sleeping, and learning which can impair school performance [2-4]. School Based Sealant Programs are an evidence-based intervention to prevent dental caries in children. Although, SBSP in several states have been successful in improving the delivery of dental sealants to low-income children, they are still struggling to meet national goals. There are several factors that limit the success of SBSP. The most common problem faced by SBSP is the difficulty in obtaining parental consent to enroll and provide services to children. Even though the program provides these services at no cost to the parent, either by billing Medicaid for the services or by providing free services to uninsured children, the program participation rates have declined for the past few years and the focus groups identified several barriers that prevented higher participation. The suggestions given would be important to consider when determining changes to the program.

Communication with parent about the program and the importance of sealants in preventing dental caries is a critical part of the buy-in to sign-up for the SBSP. Research indicates that successful health communication initiatives use multiple means of communication and

adapt communication activities to audiences preferred formats, channels, and contexts [15]. Use of electronic communication methods was strongly advocated by the participants which was not considered by the program in the past. Another important aspect that was overlooked, is the involvement of the school community, i.e. staff and teachers, which has a significant impact on the consent form return rates [16]. While the school principals welcomed the program in their schools, staff and particularly teachers were not actively pursued to get involved in planning, promoting, and encouraging student participation. Additionally, studies indicate low consent rates may be due to low oral health literacy and low parental education [6]. Providing additional resources to parents about the importance of oral heath, the program, and services along with an opportunity to discuss this information with the program coordinator or dental hygiene provider might be helpful as well. Promotional activities that highlight the branding of the program and the services along with the promotion of the dental profession might be an effective way to encourage parents and children to participate. The participants strongly felt that the current incentive program needs to be revamped and strengthened to include more tangible incentives in addition to free services to motivate the children to turn in the consent forms and encourage parents to participate in the program. Participants also stated the important role parent volunteer groups can play in efficient planning and implementation of the SBSP. The participants saw parent group involvement critical to better understanding the important of oral health and the SBSP services. They also felt that their peers would be more open to parent groups advocating for the program and more likely to enroll their children in the program.

The SBSP had already implemented several of the suggestions resulting from this study for the past several years. Suggestions for including program information in school newsletters, providing incentives for children, attending parent events at school etc. have been in place for several years, but have not been successful in increasing participation rates. The key to improving participation might lie in reconsidering how some of these old ideas can be tweaked and reimplemented and employing some of the newer ideas from this study to improve parent and teacher engagement in the SBSP planning and implementation activities.

Implications for school health

School environments provide an opportunity to teach and establish health-enhancing behaviors which promotes societal wellness and wellbeing. Integration of health education and providing access to medical professionals and services is conducive to maintain a safe and healthy learning environment especially in poor and low-socioeconomic communities. Students are engaged and learn to become responsible participants in their health through emphasis of prevention and early intervention. SBSP are a very effective way to reach students who are most likely to benefit from these programs. These programs are also efficient in addressing the burden of oral disease in school-aged children which in turn improves school attendance and learning.

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Conflict of Interest

The authors have no affiliations with or involvement in any organization or entity with any financial interest or non-financial interest in the subject matter or materials discussed in this manuscript.

Human Subjects Approval Statement

This research was reviewed and approved by the University Institutional Review Board (IRB Approval Notification - Protocol #1415-75).

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