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Strategies to Improve Oral Health Systems in Rural Vietnam

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Main Claim

Although there are not many resources in rural areas of Vietnam to have a robust and sophisticated oral health system, a combination of preventive, structural, and curative strategies can help improve oral health in rural Vietnam. Most importantly, the solution should be cost-effective and suit local priorities.

Introduction

Oral health care systems seek to prevent and treat problems related to the mouth, as well as restore teeth and the tissues that support the teeth. Oral health is closely related to general health because it affects quality of life, food consumption, and physical appearance. Despite the importance of oral health, “more than 70% of the world’s population, mainly those living in low- and middle-income countries, have little or no access to oral health care” (Benzian & Helderman, 2006, p. 413). According to the National Oral Health Survey of Vietnam from 2001 and data from the World Health Organization, “large parts of the population of Vietnam must have incomplete natural dentitions” as a result of high numbers of extractions, and the average number of dental caries is higher than the global average (Bhide et al., 2008; Nguyen et al., 2010, p.1). The availability of sweets and consumption of sugar is rising as areas of Vietnam are becoming more developed. Consequently, the number of cases of dental caries and periodontal disease is also rising, but rural areas of Vietnam do not have an oral health system to accommodate the increasing oral health problems. Hence, a new approach to oral care or a set of reforms is necessary to treat and prevent oral health problems for poor communities.

Figure 1. Map of Vietnam

Figure 2. Ethnic minority groups comprise a large part of the population that are at severe oral health risk

Investigation

Previously performed studies and reports were analyzed and compared in effort to come up with a solution to improve rural Vietnam’s oral health system. The studies involved: health care and oral health care policies of Vietnam, oral health statuses and trends of Vietnamese people, and intervention strategies. Finding articles that were specifically about oral health was challenging, so some studies on general health care were analyzed and the information was adapted to fit oral health care.

Results

The findings of the investigation were as follows:

Oral health system:

- The majority of Vietnam’s wealth and clinics tend to be concentrated in urban centers rather than rural areas.
- An average of only 7.1% of the GDP was spent on total health expenditures by the Vietnamese people.
- The ratio of dentists to the total population can range from 1:178,500 to 1:13,400 (Nguyen et al., 2010).
- Water fluoridation is used in urban areas like Ho Chi Minh City but not rural areas.

Oral health statuses/trends:

- Understanding the oral health statuses of populations is necessary before creating a program to improve oral health.
- The majority of the population has a reduced dentition. Tooth decay is an issue in rural and urban areas.
- Economic status influences sanitation behaviors. Rural Vietnamese are willing to improve their sanitation behaviors but cannot afford to. It was noted that some villagers used their fingers for brushing their teeth.
- In a sample of 150 villagers in Danhphuong, 93.5% of participants aged 30 and over and 75% of participants under the age of 30 had periodontal problems (Uetani et al, 2006).
- In Ben Cau, Vietnam, school children consumed an average of 1.6 sweet drinks and 1 sweet foods. The number of caries had a statistically significant trend with sweet drink consumption (Bhide et al., 2008).

Intervention strategies:

- Efforts have been made to increase the number of doctors in rural areas but conditions make rural areas unappealing.
- National programs have been started by the government in the past to promote latrine use and hygiene. The programs were not effective in ethnic minorities, mostly because they did not reflect local priorities. Government assistance was also too insufficient to make a difference.
- Getting whole families and communities involved in health programs increases the chances of its success.
- Water fluoridation has proven effective in preventing dental caries in Vietnam but 70% of the rural population do not benefit from it (Petersen et al., 2012).
- Incentives have been given to doctors and medical students so that they work in rural areas. Incentives include scholarships and stipends.
- Atraumatic restorative treatment does not require a drill, advanced water plumbing, or electricity. Cavities are cleaned manually using hand instruments and then filled with fluoride-releasing restorative material (Benzian & Helderman, 2006).
- Decayed teeth are commonly extracted, but they can be restored. In the “shortened dental arch” concept, anterior teeth and premolars are preserved more than posterior teeth because they are less expensive to operate on.

Discussion

Finding a solution to improve oral health is complex because there are several approaches: preventive, structural, and curative. The preventive approach seeks to reduce the chances of oral disease by educating the general population and promoting better oral care. Structural strategies seek to reform way the oral health system is organized and the way health professionals see and treat patients. The curative approach seeks to treat oral diseases through patient treatments like sealants and actual dental work.

In terms of preventive strategies, an educational program that teaches oral hygiene and dietary advice would be the most fundamental and cost-effective (Bhide et al., 2008). Doing so would result in less severe cases of oral disease and a smaller need for dental professionals, who are often not available to begin with. School and community-based programs that involve all members of the community would likely educate the public more effectively. Fluoridation is another inexpensive method of prevention.

There are several structural strategies for oral health care systems. Policies and incentives can be put into place to increase rural retention of doctors, such as scholarships and improved working conditions. Furthermore, other health workers can be trained to perform simple oral care if dentists are sparse.

The final category of strategies is curative strategies, which change how procedures are performed and treatment is given. The main issue with curative strategies is a lack of resources and personnel. Thus, curative strategies must be cost-effective for both the general population and the oral health workers. Approaches like the atraumatic restorative treatment and trying to save particular teeth can save teeth functionally and money.

Figure 3. Stages of periodontitis, a common oral disease

Conclusion

The oral health of rural Vietnamese is in a serious condition and can worsen as sugar consumption increases, with the majority of the population already having decayed teeth, periodontal disease, and tooth extractions. Programs can be created for rural areas that use several or all of the strategies. For these strategies to be executed effectively, more effort has to be spent on all levels (i.e. the government, communities, health centers, families) to make oral health a higher priority. Regional or district level programs can be created to better suit local needs, and each population should be investigated separately prior to program creation. Trial periods are also essential in the planning process before implementing programs on a larger scale. Once a model has been found, other locations can determine the demographics of their people and consider which aspects of the model can be applied there. Furthermore there are likely many more approaches that could improve oral health than the ones mentioned in this investigation. Ideally, oral health would improve world-wide in poor areas through the implementation of these strategies.

Works Cited


Figure 4. Ethnic minority groups, a large part of the population that are at severe oral health risk

Access to the free full-text version of this article is available through the following link: http://www.sciencedirect.com.proxy.library.vcu.edu/science/article/pii/S0277953610004806.

Acknowledgments

I’d like to thank Professor Faye Prichard for mentoring and supporting me as I wrote this report.

Pictures: http://www.nationsonline.org/maps/vietnam-administrative-map.jpg

Figure 2. Ethnic minority groups comprise a large part of the population that are at severe oral health risk

Figure 3. Stages of periodontitis, a common oral disease

Figure 4. Ethnic minority groups, a large part of the population that are at severe oral health risk

Figure 5. Stages of periodontitis, a common oral disease