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Manpower Development for Primary Prevention of Oral Diseases: A Global Perspective

Rashi Chaturvedi, M.D.S., D.N.B.*

K.Gauba, M.D.S**

ABSTRACT

A relevantly trained, multi-skilled public health workforce is the key to the development, improvement and efficient functioning of comprehensive public health systems. In many developing countries, including India, oral health services suffer from serious constraints regarding the accessibility for all and lack of a community oriented approach. This review has been specially compiled from the workforce developmental strategies of the various nations across the world to enable analysis of the manpower development techniques in the various developed and developing nations to enable formulation of guidelines in the emerging countries based on their needs and resources to provide adequate access to oral health care.

Key-words: workforce development, public health dentistry, primary prevention, access to health care

INTRODUCTION

Primary prevention of oral diseases poses a considerable challenge especially in the developing countries and nations with their economies and health systems in transition. These include[1]:

1. Oral health care still not considered on National agenda

2. A wide disparity in the dentist's to population ratio

3. A significant shortage of oral health services in rural communities

4. Dental public health measures inadequate to stop the rising epidemic of oral diseases especially in children

5. The existing primary care systems not prepared to deal with the oral heath issues

6. Presence of barriers in access to dental care

Primarily, we need to identify these barriers and then eliminate them in order to provide good primary oral health care services to the local communities. Promotion of health in the settings where people live, work, learn and play is the most creative and cost effective way of improving oral health and in-turn the quality of life.

WHO encourages oral health promotion via its Global Oral Health Program[2] which identifies the health determinants, helps in the implementation of community based projects and builds capacity in planning and evaluation of National and International primary preventive oral health programs, thereby, strengthening networks and alliances.

Workforce Development

In order to achieve increased access to oral health care, redefining the existing oral health care manpower development strategies to provide a diverse and competent workforce needs to be done.

The issues that need to be addressed include:

Author's Affiliation: *Reader, Department of Periodontics, **Director Principal, Professor & Head, Department of Pedodontics, Dr. H.S. J. Institute Of Dental Sciences & Hospital ,Panjab University, Chandigarh, India.

Reprints request: Dr. Rashi Chaturvedi, H.No. 1036, second floor, sector 40-B, Chandigarh., Phone numbers: +91-9815306699, E-mail address: rashichaturvedi@yahoo.co.in

1 Distribution and composition of the dental team

2. Diversification of manpower

3. Education and training programs

4. Expansion of roles of allied dental professionals and non-oral health professionals to assist in disease prevention and oral health promotion.

We need to expand the capacity with existing resources by maximizing the use of the existing space and equipments, utilizing human capital in the form of safety net providers, social workers and administrators and integrating with larger existing systems such as institutions, clinics and schools.

Role of Academic Dental Institutions[3]

Academic dental institutions play a key role in providing the qualified workforce of dental and allied dental professionals. These help in guiding the number, type and education of the dental workforce personnel. They assist in developing prevention strategies and promoting public health education in community settings and also conduct and translate research to the benefit of the masses. Considering the future workforce requirements, there is a need for reform with emphasis on comprehensive dental care, interdisciplinary approach, clinical training in a team concept setting and an increased student participation in outreach programs for community services.

What We Can Learn From Other Countries?

In many developing countries including India, oral health services suffer from serious constraints regarding the accessibility for all and lack of a community oriented approach. Hence a brief overview of the dental workforce development strategies in the various developed and developing nations would enhance our awareness as well as help formulate guidelines based on our needs and resources to access oral health care.

I.Developed Nations

a. American Perspective

The Surgeon General's Report[4] on oral health has laid down guidelines to build an effective health infrastructure that meets the need of all Americans. It involves integrating oral health into overall health and lays down objectives for the promotion of Oral Health by 2010.The Association of State and Territorial Dental Directions (ASTDD) have developed certain strategies to increase the number, distribution and availability of Dental professionals for all populations[5].

1. Increasing the number of dentists by establishing new dental schools and setting up satellite campus sites at permanent institutions.

2. Increasing the availability of dentists in the underserved regions by identifying dental health professional shortage areas (HPSA's) and increasing recruitments in them in collaboration with Primary Care Associations, Primary Care Organizations and State Dental Directors.

3. Encouraging the minority and low income students to choose dental careers by funding various scholarship programs and expanding the availability of study loans

4. Expansion and distribution of dental safety net facilities such as community health centres, mobile dental vans and portable dental clinics. This can be done by offering incentive based training programs for those serving in the rural areas and by exploring innovative ways to involve dentists to provide for such safety net facilities.

5. Develop education programs to provide practice management training

6. Expansion of the role as well as the scope of the dental auxiliary personnel and an increase in their availability in the underserved region.

7. Integrating oral health education and prevention strategies with non-dental providers such as physicians, nurses practioners, physician assistants, nutritionists, childcare and outreach workers.

All these approaches are aimed at increasing access to oral health preventive services based on various models of medical care.

b. European Perspective

Oral health plan for Europe has been devised by the National Health Services (NHS). NHS has worked diligently towards workforce planning and has integrated dentistry into its

mainstream activity. It aims at equitable distribution of dental services based on patient needs and oral health prevention issues. Workforce planning has been based on projections from workforce to population ratios and dental practioners opinion surveys. These help identify dental workforce shortage areas and help estimate the requisite demand to absorb the current capacity.

NHS dentistry (2004)[6] has ascribed certain recommendations for the education, training and development of the dental team.

Short term implementation strategies such as:

1. Increase workforce by piloting novel ways of training hygienists and therapists at sites distant to dental hospitals.

2. Increase the proportion of training for dental undergraduates, therapists, hygienists and dental nurses in primary care outreach schemes.

3. Organize continuing dental education and training programs for the dental team involving interactive e- learning and tele-dentistry.

4. Structured professionals complementary to dentistry to deliver educational and clinical priorities

Long term goals would aim at a change in the dental undergraduate teaching program to a modular pattern. This would involve a two year primary degree in health care sciences followed by specialization and an integration of outreach and in-reach into dental education. There is a need to identify other professionals complementary to dentistry and provide alterations in their vocational training for outreach programs.

c. Australian Perspective

National Advisory Committee on oral health has laid down Australia's National Oral Health Plan 2004-2013[7], which aims primarily at providing sufficient, sustainable and skilled labor force to meet the oral health needs across the population. The areas of key focus include; role expansion and enhanced career pathways, attracting and supporting the dental team, practice based learning programs and achieving excellence in public dental health. Short term strategies (over the next 2 years).

1. Increasing the supply of overseas trained dentists by expanding the educational pathways to registration.

2. Achieving workforce self sufficiency and maintaining current levels of access to dental services.

3. Improving recruitment and retention of oral health practioners in public dental services as well as in rural and remote areas by offering scholarships, incentives and necessary professional support and development avenues

4. Increasing remuneration of oral health academics in tertiary educational institutions and providing better funding of dental schools and oral health training programs.

In the long term, i.e. over the next 5- 10 years, it is envisioned to further develop educational programs to build capacity of the oral health workforce and establish collaborations with policymakers in health, community service and education.

II. Developing Nations

a. African Perspective[8]

Oral health care is of low priority in developing countries of the African region. Major challenges include a lack of national oral health policies and plans, inappropriately trained dentists, lack of dental auxiliaries, inequality and inequity in services and lack of appropriate equipment and evidence based services. Hence there is a need to integrate oral health care with general health, training of oral health personnel in tertiary and middle level colleges and setting up good financial incentives for oral health care providers.

Nairobi declaration (2004) on oral health in Africa has laid down policies for oral health promotion and integration into primary health care programs and support of affordable preventive services and strengthening human resources for oral health.

b. Asian Perspective

China[9]

China is one of the fastest growing economies of the world. Since 1980's a surge has been seen in the demand for oral health care. In 1988, a National committee for Oral

Health (NCOH) was established by the ministry of public health to take care of oral health education and promotion and primary health care. It has been delegated the task of drawing up a plan for manpower and personal training.

South East Asia[10,11]

These developing nations face a major drawback of limited access to basic primary oral health services due to deficient skill, competency and functioning of the existing oral health care workers. To overcome this, various National Oral Health Plans have been developed which aim at integration of primary oral health care into the national health policy, increase the quality of health personnel produced and an equitable distribution and management of allied dental professionals in district hospitals and health centres.

Similarly, other developing nations in the Middle East[12,13] as well are propelling themselves towards manpower development to provide better primary oral health care facilities especially to the underserved.

India

India currently faces a multitude of challenges regarding the status of primary oral health care workforce[14]. These include:

1. Need for an Oral Health Policy integral to the National Health policy

2. Geographical mal-distribution of dentists

3. Lack of training and education for community oriented outreach programs

4. Inadequate utilization of allied dental professional & non-dental health care providers

5. Inadequate workforce in rural areas

6. Need for dental health planners with relevant qualifications and training in public health dentistry.

Dental Council of India was the first to formulate a National Oral Health Policy in 1991.Recently, in 2006, a collaborative program between Government of India- WHO was held regarding the formulation of guidelines for meaningful and effective utilization of available manpower for primary prevention of oro-dental problems in the country[15]. This workshop identified the barriers in non-participation of manpower in dental institutions and suggested methods to expand the role of dental workforce in National rural health missions. They laid down certain recommendations for dental workforce development:

1. Role of dental college administration in co-ordination with local government officials for oral health promotion and service provision.

2. Role of the faculty and students by active participation in community programs and field training and shouldering the responsibility of training health workers about primary oral prevention

3. Role of DCI/GOI by framing policies for oral health promotion and integration in other National programs, implementation of curriculum reforms and compulsory submission of undertaking by the dental institution to be able to provide adequate manpower in view of acute shortage.

Long term efforts are needed to rebuild the public health workforce in these countries. Only with a proactive public health workforce trained to meet the challenges, can these countries respond adequately to current and emerging oral health problems carry out health sector reforms towards integration and work towards broader goals.

WHO is working on mapping existing training programs and supporting them for strengthening the workforce, guiding in expansion, innovation, quality improvement and continuing education, working towards integrated health systems, building partnerships and mobilizing new health funds.

CONCLUSIONS

The problem areas that remain and need to be worked upon for manpower development based on experiences and approaches taken from other developed countries include:

1. Primary Oral Health Care systems designed to help increase access to the underserved and decrease the levels of the disease

2. Integration of both preventive and restorative Oral Health Services into primary care

3. Enticing the next generation of oral health providers to work in primary care settings

4. Bridging the professional gaps and confront barriers that currently stand in the way of integrating care.

Hence, there is a need to change attitudes about oral health workforce and view them as crucial investments, harmonize the workforce across diverse oral health programs and ensure support from fiscal policies for workforce improvements.

REFERENCES

1. Access to Oral Health Services for Low Income People – Policy Barriers & Opportunities for Interventions for the Robert Wood Johnson Foundation. October 2002.
2. Evaluation of Community based oral health promotion & oral Disease Prevention – World Health Organization. Recommendations for improved evidence in public health practice. June 2003.
3. Haden NK, Catalanotto FA, Alexander CJ. et al. Improving the Oral Health Status of All Americans: Roles & Responsibilities of Academic Dental Institutions. The Report of the ADEA President's Commission. J Dent Edu, 2003; 67(5): 563-583.
4. U.S. Department of Health and Human Services. Oral Health in America: A report of the surgeon general. Rockville, Md. :U.S. Department of Health and Human Services, National Institute of Health, National Institute of Dental and Craniofacial Research, NIH publication, 2000; 00-4713.
5. Best Practice Approaches Report. Access to Oral Health Care Services: Workforce Development. Association of State & Territorial Dental Director. www.astdd.org/docs/BPA accessworkforce.pdf. 2005.
6. Department of Health, United Kingdom. Report of the Primary Care Dental Workforce Review, www.dh.gov.uk, 2004.
7. Healthy mouths, healthy lives: Australia's National Oral Health Plan 2004 – 2013 prepared by the National Advisory Committee on Oral Health. www.health.vic.gov.au/dentistry, 2004.
8. Petersen PE. Improvement of Oral Health In Africa in the 21st Century – The Role of WHO Global Oral Health Programme. Developing Dentistry, 2004; 5(1): 9-20.
9. Lin HC, Schwarz E. Oral Health & Dental Care in Modern Day China. Community Dent Oral Epidemiol 2001; 29: 319-328.
10. Profiling Public Health Workforce in Countries of the South-East Asia Region. World Health Organization, 2006.
11. Palenstein Helderman W, Mikx F, Truin GJ. Workforce requirements for a Primary Oral Health Care System. Int Dent J, 2000; 50(6): 371-376.
12. Pakshir HR. Oral Health in Iran. Int Dent J, 54 (6) supplement, 2004; 367-372.
13. Beiruti N, Palenstein Halderman W.H. Oral Health in Syria. Int Dent J, supplement, 2004; 54(6): 383-388.
14. Tandon S. Challenges to the Oral Health Workforce in India. J Dent Edu, supplement, 2004; 68(7): 28– 33.
15. Prakash H., Duggal R., Mathur V.P. Guidelines for Meaningful and Effective Utilization of Manpower at Dental Colleges for Primary Prevention of Oro-Dental Problems in the country. (A GOI –WHO collaborative programme) Final Report & Recommendations, 2007.