

THE UNIVERSITY OF HONG KONG

IMPACT CASE HISTORY

Title of case study: Oral Health Promotion among Indonesian Domestic Workers and Their Employers' Families

1. Summary

Dr Xiaoli Gao, Research Assistant Professor, and her team (Professor Edward Lo and Professor Colman McGrath) developed a large-scale project to help Indonesian domestic helpers (of whom there are 140,000 in Hong Kong) take care of their oral health. The team developed a four-part project for the helpers that included developing/producing 100,000 oral health education packs and distributing them through the Indonesian consulate, employment agencies and other outlets; organising an oral health campaign that reached about 6,000 Indonesian domestic workers; organising "train-the-trainer" workshops for representatives from 237 employment agencies; and providing individualised oral health advice for 968 domestic workers. By changing the current practice of occupational training to domestic helpers, the project not only benefits the workers themselves but also indirectly benefits the local families as the workers, now better equipped with oral health knowledge, could give better care to the children and elderly people they look after.

2. Underpinning research

The research team's epidemiological studies have shown a huge disparity in oral health between ethnic minorities and immigrants (including foreign workers) and the rest of the population [section 3: i-iii]. This finding points to the urgent need to engage them in dental programmes and to raise their dental awareness.

Understanding the underlying social/cultural/behavioural determinants has been an expertise area and research focus of the team members. Their research revealed multi-structured behavioural pathways linking social-economic circumstances, oral health perceptions and habits, and oral health outcomes [iii]. Another study showed how cultural beliefs shape health perceptions that affect oral health [iv]. Through a systematic review, they have synthesized the evidence on the impact of acculturation on oral health [v]. Findings on these social/cultural/behavioural determinants helped the team tackle the root issues of poor oral health and develop health interventions effectively.

The team members have rich experience in developing and delivering outreach dental service and oral health education/promotion, especially to those vulnerable groups or disadvantaged communities, including ethnic minorities, immigrants, refugees, homeless or low income families, and the elderly [vi-vii]. Oral health messages were disseminated through various means/channels and using multi-media/multi-lingual materials. Preventive measures (e.g. fluorides for preventing tooth decays) have been promoted to these vulnerable groups.

The team members have supervised undergraduate student groups in carrying out community health projects in the two largest domestic worker groups (i.e. Filipinos and Indonesians). One of the small projects among 163 Indonesian domestic helpers revealed their poor oral health. Over 90% were affected by dental caries (tooth decay), with an average of 5 carious teeth. None of the participants had healthy gingiva; 45% had periodontal pockets. Participants' oral health knowledge is unsatisfactory. Many held a fatalistic view and perceived tooth loss as a natural process of ageing. Training is needed to improve their diet habits and oral hygiene practice (e.g. toothbrushing skills and dental flossing). The small project pinpointed several perceptions/habits for future intervention, such as their fatalistic views on oral health and rare use of inter-dental cleaning tools (e.g. dental floss). Through further analysis, several social determinants were identified, explaining the poor oral health of domestic workers, including their poor living condition, lack of social support, and rare engagement in social activities [i]. Findings of this study were reported in conferences and peer-reviewed journal. One of the student groups received local prize (Dental Alumni Association Prize) and international award (International

Association for Dental Research Southeast Asia Division Best Paper Award in Behavioural Science and Health Service Research) for this project.

3. References to the research

Key publications:

- i. Gao X., Chan C.W., Mak S.L., Ng Z., Kwong W.H. and Kot C.C.S. Oral health of foreign domestic workers: exploring the social determinants. *Journal of Immigrant and Minority Health*. 2014 Oct; 16(5):926-33.
- ii. Gao X., McGrath C.P.J. and Lin H.C. Oral health status of rural-urban migrant children in south China. *International Journal of Paediatric Dentistry*. 2011; 21 (1): 58-67.
- iii. Gao X., Hsu C.Y.S., Xu Y.C., Loh T., Koh D. and Hwarng H.B., Behavioral pathways explaining oral health disparity in children. *Journal of Dental Research*. 2010; 89(9): 985-90.
- iv. Gao X., Hsu C.Y.S., Xu Y.C., Loh T., Koh D. and Hwarng H.B. Promoting positive health behaviours - 'tooth worm' phenomenon and its implications. *Community Dental Health*. 2012; 29: 55-61.
- v. Gao X. and McGrath C.P.J. A Review on the oral health impacts of acculturation, *Journal of Immigrant and Minority Health*. 2011; 13: 202-213.
- vi. Zhang W, McGrath C, Lo EC, Li JY. Silver diamine fluoride and education to prevent and arrest root caries among community-dwelling elders. *Caries Research*. 2013; 47(4):284-90.
- vii. Luo Y, McGrath C. Oral health and its impact on the life quality of homeless people in Hong Kong. *Community Dental Health*. 2008 Sep; 25(3):137-42.

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4. Details of the impact or benefit

This knowledge exchange programme was a joint effort of the academic, local and foreign governments, NGOs and industry. The team's previous collaborations with the relevant parties have laid a foundation for the successful planning and implementation of this programme. Funding support was granted by HKSAR Food and Health Bureau's Health Promotion Care fund. The Indonesian Consulate General and the association of employment agencies (APPIH) provided support in organizing this programme. The industry partner (Colgate) contributed by providing in-kind products (sponsorship of toothbrushes and toothpaste) and education support to the programme.

The development of oral health education materials as well as the planning and implementation of the programme were informed by the team's previous research findings and health promotion experience. Tailor-made, culturally relevant, bilingual/trilingual materials were prepared with full consideration of the current status of the target groups, including their dental awareness, gaps in their oral health knowledge, cultural beliefs, and the social determinants of their oral health.

Undergraduate and postgraduate students continued to be involved in this programme, especially in the big events. They applied their knowledge and skills and also deepened their own understanding on community oral health through this programme.

This programme comprised the following activities:

- (1) A total of 100,000 sets of tailor-made oral health education packs were designed and disseminated through various channels and on different occasions, mainly through the Indonesian Consulate General Welcoming Program for newly arrived domestic helpers and the business offices of all employment agencies for Indonesian domestic helpers.
- (2) Large oral health campaigns were organized: around 6,000 participants were recorded and received oral health education through posters, exhibition booths, and oral health talks given to small groups of participants.
- (3) "Train the trainers" workshops were organized to train representatives from 237 employment agencies so that they can incorporate oral health education into their occupational training program for domestic helpers.
- (4) Individualized oral health advice and oral hygiene instructions (toothbrushing skills and use of interdental cleaning aids) were provided to 968 domestic workers.

Significant improvements were seen in oral health knowledge of both the participating domestic workers and representatives of employment agencies (both $p < 0.05$).

The personal and societal impacts of this programme have been sustained into the future in several ways:

- (1) NGOs gave feedback that they appreciated the partnership and train-the-trainer sessions and will incorporate oral health education into their occupational training for domestic workers.
- (2) The tailor-made, cultural relevant materials are accessible in Consulate and business offices of employment agencies and will continue to be disseminated. It is expected that the participants also share their knowledge with other workers.
- (3) With domestic helpers who took part in the programme sharing their knowledge with their employers, employers' families and their own families, the impact of this programme can be extended to many other beneficiaries.
- (4) Since domestic workers are often the carers of many vulnerable groups, such as children, elders, and disabled people in their employers' families, such knowledge exchange programme could also improve oral health of the local society.

5. References to the corroboration of impact or benefit

- Very positive feedback on this programme was received from the participating parties. Evaluation results are available for corroboration purpose.
- Appreciation letter from the NGO partner (association of employment agencies) is available for corroboration purpose.