Review Article

DOI: 10.7860/JCDR/2014/9330.4900

Social Capital and Oral Health

Dentistry Section

MANU BATRA[1], PRADEEP TANGADE[2], YOGESH CHAND RAJWAR[3], SUBHA SOUMYA DANY[4], PRASHANT RAJPUT[5]

ABSTRACT

Social determinants have always been an important element of the oral health. It has been seen that social aspects like the organizations and relations influence the health of population. A new domain named social capital has come up into limelight which refers to "features of social organization, such as trust, norms and networks that can improve the efficacy of society by facilitating coordinated actions". The bonds between individuals, both in intimate relationships and in voluntary associations have been claimed to have health promoting effects. Oral health can never be segregated from general health as they are bidirectional in their relationship. Therefore determinants of general health and its promotion are interlinked with that of oral health. So, this review tries to figure out the effects of social capital on various aspects of oral health.

Keywords: Community, Population, Social determinants

INTRODUCTION

Epidemiologists have long been interested in the ways in which social organization and disorganization influence the health of populations. A recent manifestation is the concept of social capital [1].

Social capital is defined as a variety of different entities having two characteristics in common: they all consist of some aspect of social structure, and they facilitate certain actions of individuals who are within the structure [2]. Social capital refers to "features of social organization, such as trust, norms and networks that can improve the efficacy of society by facilitating coordinated actions" [3].

The bonds between individuals, both in intimate relationships and in voluntary associations make it possible for individuals and groups to achieve a variety of goals. Such bonds have also been claimed to have health promoting effects [1].

Thus social relationship with embedded resources can be expected to be beneficial and occasionally harmful to both individuals and collective members of these networks.

Social network is seen as the structural component of social capital [4], and, in turn, can be divided into two types - Horizontal networks: these improve society by bringing equivalent status and power, thus maintaining equal social capital in the society through ties with family, friends, neighbours and colleagues. Vertical networks: these include hierarchical relationships with people in power in the society, such as religious organizations and political parties [5]. Such ties may lead to unequal social capital [6]; however, it is argued that such vertical dimension of social capital, which he called "linking social capital", is important to increase involvement in the local community [7].

Social capital can further be classified into bonding social capital and bridging social capital. Bonding social capital refers to strong relationships between individuals who know each other and are socially similar, such as between family members and friends. Bridging social capital comprises less strong relations that are formed between people who are different in their socio-demographic characteristics such as education or ethnic group [8].

SOCIAL CAPITAL MEASUREMENT

Social capital can be assessed on two levels: individual level and community level. There are several indicators used for this purpose, the most commonly used, especially in health research, is membership in voluntary organizations and general social trust [9]. These two measures are included in addition to measures of engagement of public affairs, measures of community voluntarism, and measures of informal sociability [10]. However, it is suggested that the best way to assess social capital is by using a social networks approach so that the effect of both quality and quantity of social relations can be assessed. It is believed that social relations play an important role in determining individual and community public health [11].

There is no standard scale to measure social capital; researchers have used the different concepts of social capital to measure it. For example, a scale was developed to measure neighbourhood social capital; in this scale five dimensions were assessed: social trust, social control, which is the degree to which neighbours would intervene to protect children from harmful behaviours, empowerment, neighbourhood security, and finally political efficacy [12].

Others measured vertical and horizontal social capital by assessing memberships in various types of organizations, unions and clubs [13]. In one of the study, different indicators were used to capture the various dimensions of social capital; these measures include voluntarism, norms of reciprocity, social support, social networks, household size and participation in a sport team [14].

SOCIAL CAPITAL AND HEALTH

Recently, there has been increased interest in the importance of social capital and its influence on the health behaviours and practices of individuals. Evidence has shown that social capital is positively related to health status. Studies have shown positive influence of high social capital on mental health [15], lower levels of mortality rates [16], and self-rated health [17]. Several studies from Canada looked at the link between social capital and health. Several studies were conducted in Saskatchewan, British Columbia and Hamilton, Ontario, to find a positive effect of different forms of social capital on self-rated health and mortality rates [18-21]. Canadian study analyzed data from the 1996-2000 National Population Health Survey (NPHS) to determine the effect of various social measures on the general health of the Canadian population. This study concluded that social capital can affect changes in health. Moreover, results suggested that marital status, contact with family, and attendance at religious services all affect health positively [14].

Social networking may help new immigrants in navigating the health care system and therefore it can affect the rate of health service utilization. Analysing data from the National Population Health Survey, Canadian Census and Canadian Medical Directory, Deri found that utilization of the health care system is affected by social networking; those who are living in a neighbourhood with many people speaking the same language have higher rates of health care use. It was concluded that health care utilization is increased by increasing the number of physicians speaking the same language

as the immigrants in the area [22]. However, we cannot expect the same for dental care utilization because health care is universal and in this case the economic factor is not of concern for the new immigrants.

SOCIAL CAPITAL AND ORAL HEALTH

Research on oral health and social capital is not as extensive as in the case of general health; only a few studies have investigated the possible influence of social capital on oral or dental health. In Brazil, the effect of community empowerment on the dental caries status of 14- and 15-year-old students was investigated and found a negative association between community empowerment and high DMFT rates [23]. The same researchers found in another study [12] that in Brazilian communities with high social capital there was less prevalence of traumatic dental injuries among adolescents. Community social context was found to have a beneficial effect on dental caries experience among three-year-old children in Japan. In this study, social cohesion, measured by the number of community centres per 100,000 residents, was significantly associated with the dmft Index [1].

Social capital could affect dental care utilization among immigrants. While studying the effect of four different types of social support, namely informational support, influence of family and friends, material aid and emotional aid, on dental care utilization among Latino women and their children in the USA, the results showed that instrumental aid, which represents the dental care information provided to mothers in hospitals for example, has no effect on dental care utilization, while the support from families and friends, such as helping in booking dental appointments and accompanying mothers to these appointments, has a significant association with visiting a dentist. The findings of this study suggest the influence of family on dental services use; currently, public health interventions concentrate on information dissemination which has, according to this study, little effect on parents dental behaviour [24]. This aspect of social support was also seen among elder Chinese immigrants in the USA [25]; frequent contacts with friends were significantly associated with increased dental visits. Another study done in United States on Mother-perceived social capital and children's oral health and use of dental care showed that children of mother with lower social capital index are more likely to miss preventive dental visits than were children of mothers with the highest social capital [26]. Also, Turrell et al., found in multilevel studies, the contextual effect of neighbourhood on tooth loss and self-rated oral health. Living in affluent neighbourhood found to benefit an individual's oral health [27,28].

CONCLUSION

To gain a better understanding of oral health there is a need to peep into distal factors, such as social capital which can be an important tool in the implementation of more effective public health policies.

REFERENCES

[1] Kunitz SJ. Social capital and health. *British Medical Bulletin.* 2004;69:61–73.
[2] Coleman JS. Social Capital in the Creation of Human Capital. *American Journal of Sociology.* 1988;94:95-120.
[3] Putman RD. The prosperous community: social capital and public life. *The American Prospect.* 1993;4:35-42.
[4] Ferlander S. The Internet, Social Capital and Local Community. Doctoral Dissertation 2003. Stirling: University of Stirling. [Accessed August 19, 2011] Available at: http://www.crdlt.stir.ac.uk/Docs/SaraFerlanderPhD.pdf.
[5] Putnam R. Making Democracy Work: Civic Traditions in Modern Italy. *Princeton, NJ: Princeton University Press* 1993.
[6] Sundby A, Peterson PE. Oral Health Status in Relation to Ethnicity of Children in the Municipality of Copenhagen, Denmark. *International Journal of Paediatric Dentistry.* 2003; 13:150-57.
[7] Woolcook M. The Place of Social Capital in Understanding Social and Economic Outcomes. ISUMA. *Canadian Journal of Policy Research*. 2001;2:12–22.
[8] Szreter S, Woolcook M. Health by Association? Social Capital, Social Theory and the Political Economy of Public Health. *International Journal of Epidemiology.* 2004;33:1–18.
[9] Ferlander S. The Importance of Different Forms of Social Capital for Health. A*cta Sociologica*. 2007;50:115-28.
[10] Putnam RD. Social Capital: Measurement and Consequences. In J.F. Helliwell (Ed.): The Contribution of Human and Social Capital to Sustained Economic Growth and Well-being .Ottawa, Ontario, *Canada: Human Resources Development Canada* 2001. pp. 117–35.
[11] Moore, S., Haines, V., Hawe, P., Shiell, A. Lost in Translation: A Genealogy of the "Social Capital" Concept in Public Health. *Journal Epidemiology & Community Health.* 2006;60:729–34.
[12] Pattussi MP, Hardy R, Sheiham A. Neighbourhood Social Capital and Dental Injuries in Brazilian Adolescents. *American Journal of Public Hea.* 2006;96:1462–68.
[13] Aida J, Ando Y, Oosaka M, Niimi K, Morita M. Contributions of Social Context to Inequality in Dental Caries: A Multilevel Analysis of Japanese 3-year-old Children. *Community Dentistry & Oral Epidemiology*. 2008;36:149–56.
[14] Nakhaie R, Arnold R. A Four Year (1996-2000) Analysis of Social Capital and Health Status of Canadians: The Difference That Love Makes. *Social Science & Medicine*. 2010 Sep;71(5):1037-44. (http://www.ncbi.nlm.nih.gov/pubmed/20599310).
[15] De Silva M, McKenzie K, Harpham T, Huttly S. Social Capital and Mental Illness: A Systematic Review. *Journal Epidemiology & Community Health.* 2005;59:619–27.
[16] Lochner KA, Kawachi I, Brennan RT, Buka SL. Social Capital and Neighborhood Mortality Rates in Chicago. *Social Science & Medicine*. 2003;56:1797-1805.
[17] Poortinga, W. Social Capital: An Individual or Collective Resource for Health? *Social Science & Medicine.* 2006;62:292–302.
[18] Veenstra G. Social Capital, SES and Health: An Individual-Level Analysis. *Social Science & Medicine.* 2000;50:619- 29.
[19] Veenstra G. Social Capital and Health (Plus Wealth, Income Inequality and Regional Health Governance. *Social Science & Medicine*. 2002;54:849- 68.
[20] Veenstra G. Location, Location, Location: Contextual and Compositional Health Effects of Social Capital in British Columbia, Canada. *Social Science & Medicine.* 2005;60:2059-71.
[21] Veenstra G, Luginaah I, Wakefield S, Birth S, Eyles J, Elliott S. Who You Know, Where You Live: Social Capital, Neighborhood and Health. *Social Science & Medicine.* 2005;60: 2799- 818.
[22] Deri C. Social Networks and Health Service Utilization. *Journal of Health Economics*. 2005;24:1076-77. (http://www.ncbi.nlm.nih.gov/pubmed/16139910.
[23] Pattussi MP, Hardy R, Sheiham A. The Potential Impact of Neighborhood Empowerment on Dental Caries among Adolescents. *Community Dentistry & Oral Epidemiology*. 2006;34: 344–50.
[24] Nahouraii H, Wasserman M, Bender DE, Rozier RG. Social Support and Dental Utilization among Children of Latina Immigrants. *Journal of Health Care for the Poor and Underserved.* 2008;19:428-41.
[25] Wu B, Tran TV, Khatutsky G. Comparison of Utilization of Dental Care Services among Chinese- and Russian-Speaking Immigrant Elders. *Journal of Public Health Dentistry.* 2005; 65:97-103.
[26] Iida H, Rozier RG, Mother-perceived social capital and children's oral health and use of dental care in the United States *Am J Public Health.* 2013;103(3):480-87. (http://www.ncbi.nlm.nih.gov/pubmed/23327253).
[27] Turrell G, Sanders AE, Slade GD, Spencer AJ, Marcenes W. The independent contribution of neighbourhood disadvantage and individual-level socioeconomic position to self-reported oral health: a multilevel analysis. *Community Dent Oral Epidemiol.* 2007;35:195-206.
[28] Sanders AE, Turrell G, Slade GD. Affluent neighbourhoods reduce excess risk of tooth loss among the poor. *J Dent Res.* 2008;87:969-73.

PARTICULARS OF CONTRIBUTORS:

1. Assistant Professor, Department of Public Health Dentistry, Teerthankar Mahaveer Dental College, New Delhi Road, Moradabad, Uttar Pradesh, India.
2. Professor and Head, Department of Public Health Dentistry, Kothiwal Dental College & Research Centre, Kath Road, Moradabad, Uttar Pradesh, India.
3. Assistant Professor, Department of Oral Pathology, Eklavya Dental College and Hospital, Kotputli, Rajasthan, India.
4. Post Graduate Student, Kothiwal Dental College & Research Centre, Kanth Road, Moradabad, Uttar Pradesh, India.
5. Post Graduate Student, Kothiwal Dental College & Research Centre, Kanth Road, Moradabad, Uttar Pradesh, India.

NAME, ADDRESS, E-MAIL ID OF THE CORRESPONDING AUTHOR:

Dr. Manu Batra,
15/1, Batra Kutir, Awas Vikas, Kashipur 244713, Udham Singh Nagar, Uttarakhand, India.
Phone : +91 9719522272, E-mail : drmanubatra@aol.com

FINANCIAL OR OTHER COMPETING INTERESTS: None.

Date of Submission: **Mar 20, 2014**
Date of Peer Review: **Jul 15, 2014**
Date of Acceptance: **Aug 05, 2014**
Date of Publishing: **Sep 20, 2014**