Barriers of utilisation of dental services among children and adolescent: A systematic review

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ABSTRACT

Introduction: Underutilisation of dental services among children and adolescent is a worldwide problem that increases caries prevalence. Younger children are less likely to receive dental care and, thus, experience oral diseases more often. This systematic review was aimed to explore the barriers of utilisation of dental services among children and adolescent. **Methods:** The literature search was conducted in the electronic database of Pubmed©/Medline©. The literature exclusion criteria were adults and qualitative study. Keywords were verified in MeSH. Boolean "AND" and "NOT" was used to specify the search. Twenty-four literature were filtered from Pubmed©, and twenty-three literature fit the inclusion criteria. **Result:** The result revealed that low-income families, minority ethnic, and disability condition have lower dental care utilisation. **Conclusion:** The identified potential determinants of oral health and dental care utilisation among children and adolescent are economic barriers, uninsurance, and availability of dental service providers.

Keywords: Dental care, dental services, utilisation, barrier, children, adolescent

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INTRODUCTION

The World Health Organization Commission on Social Determinants of Health issued a report which challenged conventional public health thinking on several fronts.[1] The report 'Closing the gap within a generation–health equity through action on the social determinants of health' responded to a situation in which the differences, within and between countries, in income levels, opportunities, health status, life expectancy, and access to care are higher than at any time in recent history. The Commission found abundant evidence that the valid upstream drivers of health inequities reside in the social, economic and political environments.[1] Goal number three of the Sustainable Development Goals is to ensure healthy lives and promoting the well-being of all ages which is essential for sustainable development. Among all of these goals includes: achieving universal health coverage, improving access to quality essential health care services and

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access to safe, effective, quality and affordable essential medicines and vaccines for all.[2]

Research on children aged 5-1 years in the US showed that only 53.6% of children who receive preventive dental treatment which is low compared to 94.7% of children receive medical prevention.[3] Not many trends changes in racial/ethnic disparities in medical and oral health access to care, and use of services in US children between 2003-2007.[4] There were very few research on dental care utilisation in children in the Asia region, especially in Southeast Asia. The majority of the research we found is about dental care utilisation in adults. Research status of oral health in children in Vietnam shows that primary caries experience was associated with fluoride level in drinking water, age, gender, residential status, and geographical location. Permanent caries was also associated with dental visiting and parental education.[5] This is important for us to study obstacles dental care utilisation in children, to get input to improve dental care utilisation in children in our country. Therefore, there is a need to review comprehensively barriers to the utility of health services, including dental services to assist in the identification of the problem. This review was aimed to explore the barriers to utilisation of dental services among children and adolescent.

METHODS

This review is seeking to answer the question "What are the barriers to dental services utilisation among children and adolescents?". MeSH was used to obtain appropriate terms for the keywords. Furthermore, after key search terms were identified, boolean search string was developed. The final combination of keywords and boolean were "dental care AND utilisation AND barriers AND child NOT qualitative research NOT adult". Pub Med was the database used in this review.

Inclusion and exclusion criteria were developed and are outlined in Table 1.

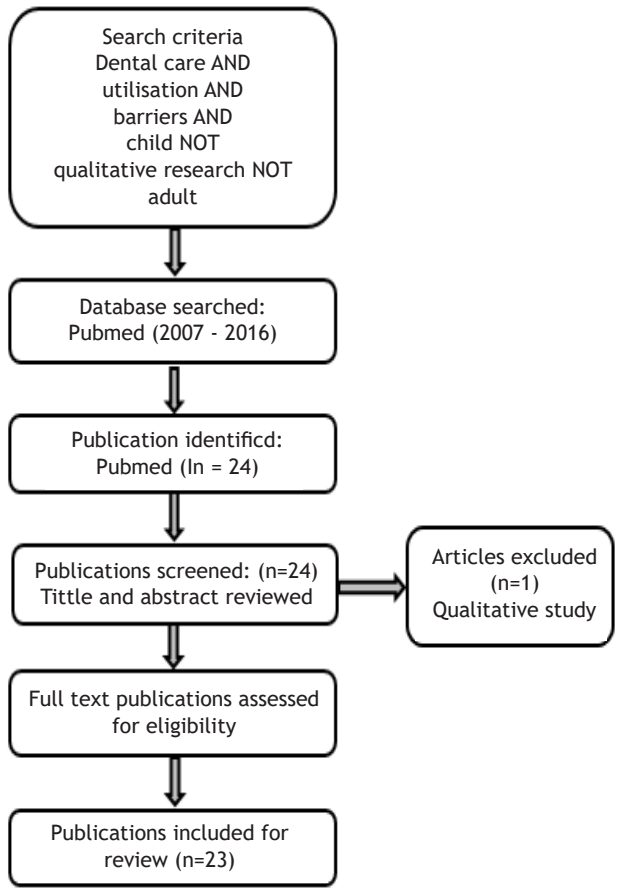

Figure 1. Flowchart of literature search and selection

Table 1. Inclusion and exclusion criteria

Criteria	Inclusion	Exclusion
Period	From September 2007 – September 2016	Any study outside the dates
Language	English	Non-English
Type of article	Original article	Any publications that were not original research, and qualitative research
Study Focus	Barriers to utilisation dental services among children and adolescent in any condition	Adult sample
Geographical area of interest	All International studies including those with specific cultural groups	Nil

RESULT

Our literature search identified 24 publications, and we screened these publications according to our inclusion and exclusion criteria (Figure 1). Finally, only 23 publications fit the inclusion criteria, seven publications discussed barriers to receiving dental services among low-income and homeless children, five publications discussed barriers among children with special needs, four publications discussed barriers among immigrant and minority, two publications discussed barriers among children at military area, one publication discussed barriers to receiving preventive dental services, one publication discussed the utilisation of orthodontic services, and one publication discussed a programme to overcome economic barriers.

Most of these studies were conducted in the United States, while others in Canada, UK, Spain, and India. Seventeen studies using the cross-sectional method, two community trial, two cohort study and two literature review article. Research subjects are the parents, caregivers, and children in the age range 0-19 years using a questionnaire and secondary data analysis. Table 2 describes the studies related to this review.

Disparities in the use of dental care have been widely reported in dentistry literature. Younger children and elders, recent immigrants, poor and near-poor people and racial and ethnic minorities are less likely to receive dental care and, thus, experience dental diseases more often. A survey was administered to Spanish parents/guardians, who were immigrants, of the patient who received preventive dental services in Arizona, indicate that the cost is more important than both convenience of appointment time and distance travelled.[6] In larger scale study by the United States nationally panel survey data analysis, suggest that language barriers have a lower impact on dental care utilisation compared to parental education.[7]

A study in Madrid, Spain, found children of immigrant and low educations parents seldom use dental health services and have a higher risk of suffering from dental caries.[8] Study of racial/ethnic found disparities in medical and oral health status among 5 ethnics US children: Latino, African-American, Asian/Pacific Islander, Native American and multiracial. Disparities for Latinos are uninsurance, problems getting speciality care, suboptimal health status and teeth condition. Among African Americans, asthma, behavior problems, skin allergies, speech problems, and unmet prescription needs; for Native Americans, hearing or vision problems, no usual source of care, emergency department visits, and unmet medical and dental needs; and for Asians or Pacific Islanders, problems getting specialty care and not seeing a doctor in the past year while Multiracial children also experienced many disparities.[9]

At low-income families population, a study in Alberta, Canada, underutilization dental care caused by no perceived need (50.7%), followed by perceived insufficient coverage (38.6%).[10] The significant barrier US low-income parents face in obtaining needed dental care for their children is a lack of financial resource. Other barriers include low numbers of dentists accepting Medicaid patients, long waiting periods for appointments, extensive travel time to appointments in rural areas, and lack of awareness about dental care needs.[11]

A study in U.S patients Medicaid members found all parents were aware of the Medicaid

Table 2. Selected publication related to barriers of dental utilisation for children and adolescent

No	Authors	Year	Title	Journal	Aim	Observations	N	Type of study	Outcome and Conclusion
1	Crall JJ, Illum J, Martinez A, Pourat N.	2016	An Innovative Project Breaks Down Barriers to Oral Health Care for Vulnerable Young Children in Los Angeles County	UCLA Center for Health Policy Research.	to improve oral health care for young children in 12 Federally Qualified Health Center (FQHC) clinic sites with co-located dental and primary care services and it's accessibility in their service areas throughout Los Angeles County	children ages 0-5 and their families	777	Cross-sectional	- The project indicated twofold increases in delivery of both dia - gnostics and treatment visits for young children, and a threefold increase in preventive services for young children during the program.
2	Sujlana A, Baweja D, Kaur A, Kaur PP.	2016	Barriers of dental care utilisation for children living in military and civilian areas.	Journal of the Indian Society of Pedodontic and Preventive Dentistry.	to assess whether easy access to dental care facilities resulted in improved oral health and increased utilisation of dental services by children.	children aged 5 years from the military and civilian areas	400	Cross-sectional	- The percentage prevalence of children affected by dental caries was observed to be statistically higher in the civilian sector. - Covariates significantly associated with increased child's dental attendance were identified as: High level of the mother's education, regularity of dental visits by the parents, the child's increased brushing frequency, and past caries experience. - Dental care utilisation is not solely access-related, and other barriers need to be investigated.
3	Chi DL, Momany ET, Mancl LA, Lindgren SD, Zinner SH, Steinman KJ.	2016	Dental Homes for Children With Autism: A Longitudinal Analysis of Iowa Medicaid's I-Smile Program	American Journal of Preventive Medicine	To compared dental home and preventive dental utilisation rates for Medicaid-enrolled children by ASD status and within three periods (pre-implementation, initial implementation, maturation) and determined I-Smile's longitudinal influence on ASD-related dental use disparities.	children aged 3–17 years identified each child's ASD status	30.059	Cohort study	- There were no significant differences in dental home rates by ASD status during pre-implementation, initial implementation, or maturation. - There were no significant differences in preventive dental utilisation by ASD status during pre-implementation or initial implementation, but children with ASD were significantly less likely to utilise preventive care during maturation Longitudinal trends in dental home, and preventive dental utilisation rates were not significant

4	Janet U. Schneiderman, Susan Kools, Sonya Negriff, Sharon Smith, and Penelope K. Trickett	2015	Differences in Caregiver-Reported Health Problems and Health Care Use in Maltreated Adolescents and a Comparison Group from the Same Urban Environment	Research in Nursing and Health	To compare health status and health care use of maltreated youth who had an open case with child protective services to comparison youth living in the same community	secondary analysis of caregiver reports for mistreated and comparison adolescents age 10-15 years	349	Cross-sectional	- More mental health problems and psychotropic medication use in mistreated youth than in the comparison youth, suggesting that mistreated youths' higher rates of mental health problems could not be attributed to the disadvantaged environment. - No differences in health insurance coverage, maltreated youth received preventive medical care more often than comparison youth. For all youth, they are having Medicaid improved their odds of receiving preventive health and dental care. - Acceptance of Medicaid by neighbourhood-based and/or school-based services in low-income communities may reduce barriers to preventive care.
5	Amin MS, Perez A, Nyachhyon P	2014	Barriers to utilisation of dental services for children among low-income families in Alberta	Journal of Canadian Dental Association.	To explore reasons for the underuse of dental services covered by a government-funded program in Alberta.	Children age 1-19 years	1303	Cross-sectional	- Low-income families underuse available dental benefits for children. - The perceived need seems to be the primary determinant of use. - Parental awareness about the coverage does not seem to promote the use of preventive measures for young children
6	Gross-Panico ML, Freeman WK 3rd	2012	Identifying barriers to receiving preventive dental services: expanding access to preventive dental hygiene services through affiliated practice	Journal of Dental Hygiene	The research questions ask if affiliated practice increases utilisation of preventive dental services by underserved and what the barriers to receiving preventive dental services are and their level of importance.	parents/ guardians of patients from 0- 18 years of age	34	Cross-sectional	The cost of preventive dental services is more important to this population than both convenience of appointment time and distance travelled. As the cost increases for preventive dental services, this population will utilise preventive dental services less frequently.
7	Chaffin JG, Moss D, Martin G, Leiendecker T, Mascarenhas AK.	2013	Children's utilisation of the U.S military dental insurance	Military Medicine.	to determine the dental utilisation of children enrolled in a military dental insurance program and to assess if utilisation differs by socioeconomic status	Claims data for children enrolled in the Department of Defense TRICARE Dental Program	376.581	Cross-sectional	- There was a difference in dental utilisation based on the military rank of the sponsor's Children of officers were 2.5 times, and children of warrant officers were 1.6 times more likely to have a dental visit than children from enlisted families.

									- utilisation trends within the enlisted and officer categories with higher utilisation among more senior personnel. - Socioeconomic status does play a role in dental care-seeking behaviour of military families.
8	Dela Cruz A, Mueller G, Milgrom P, Coldwell SE.	2012	A community-based randomised trial of postcard mailings to increase dental utilisation among low-income children	Journal of Dentistry for Children (Chicago, III).	to measure the impact of postcard mailings on dental utilisation through a dental society program designed to increase access to dental care.	children 2-4 year-olds low-income families	5807	Community trial, cross-sectional.	Postcard mailings did not significantly increase utilisation of preventive dental services. Other strategies to improve utilisation of preventive oral health measures are needed
9	McKernan SC, Kuthy RA, Momany ET, McQuistan MR, Hanley PF, Jones MP, Damiano PC	2013	Geographic accessibility and utilisation of orthodontic services among Medicaid children and adolescents.	Journal of Public Health Dentistry	To describe rates of Medicaid-funded services provided by orthodontists in Iowa to children and adolescents, identify factors associated with utilisation, and describe geographic barriers to care.	Medicaid-enrolled children and adolescents who were ages 6 to 18 years during CY 2008-2010	116,330	Retrospective cohort	- Medicaid enrollees living in small towns and rural areas were more likely to utilise orthodontic services than those living in urban areas. - Children who had an oral evaluation by a primary care provider in the year before the study period were more likely to receive orthodontic services. - Service areas with lower population density and greater mean travel distance to participating orthodontists had higher utilisation rates than smaller, more densely populated areas.
10	Melbye M, Huebner CE, Chi DL, Hinderberger H, Milgrom P.	2013	A first look: determinants of dental care for children in foster care	Special Care in Dentistry	to identify potential determinants of dental care use and oral health among children living in foster care.	health and social services professionals experienced with children in foster care and families in western Washington State.	14	Qualitative, cross-sectional	The identified potential determinants of oral health and dental use among children living in foster care include: 1) linguistic and cultural barriers; 2) lack of dentists willing to accept children's Medicaid dental insurance; 3) the lack of resources available to case-workers (i.e., substantial caseload burden) 4) the lack of federal funding for specialised dental care; 5) lack of systematic health record-keeping; 6) child transience, leading to the lack of a dental home; 7) foster parents' competing needs; 8) child behaviour problems 9) lack of dental "buy in" from adolescents.

11	Stein LI, Polido JC, Najera SO, Cermak SA.	2012	Oral care experiences and challenges in children with autism spectrum disorder	Pediatric Dentistry	to investigate the differences between children with autism spectrum disorders (ASD) and their typically developing peers in relation to aspects of oral care.	parents of ASD children or typically developing 2- to 18-year-olds	396	Cross-sectional	- Significantly more parents of ASD children than parents of typically developing children reported difficulty across almost all oral care variables explored, including oral care in the home, at the dentist, and access to oral care. - This study indicates that children with autism spectrum disorders experience greater difficulties and barriers in caring in both home and dental office settings than their typically developing peers.
12	Lee JY.	2012	Access to dental health care for children in North Carolina	North Carolina Medical Journal	To examines trends in oral health care access in the nation, as well as potential barriers, and finally, methods to increase access in North Carolina	children ages 0-18 years	-	article	- lower socioeconomic status, minority race has also consistently been identified as an independent risk factor for children to not visit the dentist - Other barriers include small numbers of dentists accepting Medicaid patients, long waiting periods for appointments, extensive travel time to appointments in rural areas, and lack of awareness about dental care needs
13	Nash DA	2009	Improving access to oral health care for children by expanding the dental workforce to include dental therapists.	Dental Clinic of North America.	Identifies barriers access to care for children, describe the use of dental therapists and suggest a potential economic advantage of using a dental therapist	-	-	article	The basic care, primary preventive and restorative care for children provided by dental therapists to be equivalent in quality to the dentists and more economical.
14	Tapias-Ledesma MA, Garrido PC, Y Peña ME, Hernánez-Barrera V, de Miguel AG, Jiménez-Garcia R.	2011	Use of dental care and prevalence of caries among immigrant and Spanish-born children	Journal of Dentistry for Children (Chicago, III)	To describe the use of dental services and the prevalence of dental caries in children living in Madrid, Spain.	3- to 6-year-old immigrants children and parents	960	Descriptive, cross-sectional	- Over the last year, approximately 59% of the children had received dental care and 28% suffered from caries. - Being an immigrant and from a lower education level typically results in less frequent use of dental health services, and children of immigrants have a higher risk of suffering from dental caries. It is essential to investigate the reasons why and introduce strategies to reduce barriers to dental health access among immigrants.

15	Decker SL.	2011	Medicaid payment levels to dentist and access to dental care among children and adolescents	JAMA. The Journal of American medical association	To describe the association between state Medicaid dental fees in 2 years (2000 and 2008) and children's receipt of dental care.	children and adolescents (2-17 years) in the National Health Interview Survey	33.657	Cross-sectional	Higher Medicaid payment levels to dentists were associated with higher rates of receipt of dental care among children and adolescents.
16	Brickhouse TH, Farrington FH, Best AM, Ellsworth CW	2009	Barriers to dental care for children in Virginia with autism spectrum disorders	Journal of Dentistry for Children (Chicago Ill).	To examine the reported use of dental services for families of children with autistic spectrum disorders and identify barriers that affect their access to dental care.	caregivers of at least 1 child with an autism spectrum disorder		Cross-sectional	Children with autism spectrum disorders who display challenging behaviour are less likely to have a dentist for routine care, have longer intervals between dental appointments, and receive care when needed.
17	Chi DL, Momany ET, Kuthy RA, Chalmers JM, Damiano PC.	2010	Preventive dental utilisation for Medicaid-enrolled children in Iowa identified with an intellectual and/ or developmental disability (IDD)	Journal of Public Health Dentistry	To compare preventive dental utilisation for children with intellectual and/or developmental disability (IDD) and those without IDD and to identify factors associated with dental utilisation	Iowa Medicaid dental claims for a cohort of children ages 3-17	107.605	Cross-sectional	- A significantly higher proportion of non-IDD children received preventive care than those identified as IDD (48.6 % versus 46.1 %). - The final model revealed no statistically significant difference between the two groups. Factors such as older age, not residing in a dental Health Professional Shortage Area, interaction with the medical system, and family characteristics increased one's likelihood of receiving preventive dental care. - Clinical and policy efforts should focus on ensuring that all Medicaid-enrolled children receive need-appropriate levels of preventive dental care.
18	Daly B, Newton JT, Batchelor P.	2010	The pattern of dental services use among homeless people using targeted services	Journal of Public Health Dentistry.	To describe the patterns of dental service use among homeless people using a targeted dental service	homeless people using a targeted dental service from 1992 to 2001.	204	Cross-sectional	- For those presenting at their first contact, 40% expressed need of oral pain and disease/ tissue damage, 28% about dental checking and oral prophylaxis. Most homeless people had a normative need for dental treatment (93%). - The targeted service was moderately successful at getting people to attend the fixed site service for continuing care, with 51% attending for subsequent visits. Flexible attendance tended to result in multiple visits and delayed outcomes, which themselves could have acted as barriers to care.

19	Noyce M, Szabo A, Pajewski NM, Jackson S, Bradley TG, Okunseri C.	2009	The primary language is spoken at home and children's dental service utilisation in the United States	Journal of Public Health Dentistry.	To examine the association of primary language spoken at home with the receipt of preventive and routine dental care for children in the United States.	data from the Medical Expenditure Panel Survey (2002-2004), Among children aged 1-18 years	21.049	Cross-sectional	- Parental education and having a primary provider were the strongest predictors of preventive and routine dental visits. - Children that did not speak English at home were less likely to receive preventive or routine dental care. - After adjusting for other socio-economic factors, this study suggests that language barriers may not play as pronounced a role in the receipt of dental care
20	Greenberg BJ, Kumar JV, Stevenson H.	2008	Dental case management: increasing access to oral health care for families and children with low incomes	Journal of American Dental Association.	To evaluate the levels of participation of dentists in the DCMP in Medicaid and Medicaid beneficiaries' use of services.	dentists who treat patients with Medicaid	63	Cross-sectional	Dentists accepting new Medicaid patients increased from two to 28, with 145 dental visits a month provided to Medicaid beneficiaries. The percentage of Medicaid beneficiaries receiving dental services increased from 9% to 41% after the DCMP was implemented.
21	Flores G, Tomany-Korman SC.	2008	Racial and ethnic disparities in medical and dental health, access to care, and use of services in US children	Pediatrics.	to examine racial/ethnic disparities in medical and oral health, access to care, and use of services in a national sample.	parents and guardians of children 0 - 17 years old.	102,353	Cross-sectional	Minority children experience multiple disparities in medical and oral health, access to care, and use of services. Certain disparities are particularly marked for specific racial/ethnic groups, and multiracial children experience many disparities.
22	Valdes XL, Greenwell A, Theriot J, Franco S.	2007	Access barriers to dental care for Medicaid patients	The Journal of Kentucky Medical Association.	understanding the reason for underutilization of dental services	Parents of 4-years-old children were surveyed at a university-affiliated pediatric clinic with dental services on site	77	Cross-sectional	Parents were aware of the availability and necessity of dental care in early childhood, yet few of their children received the recommended prophylactic visits. Medical care providers caring for children play an important role as advocates of early and regular prophylactic dental visits.
23	Nicopoulos M, Brennan MT, Kent ML, Brickhouse TH, Rogers MK, Fox PC, Lockhart PB.	2007	Oral health needs and barriers to dental care in hospitalised children.	Special Care in Dentistry.	to examine the oral health status and utilisation of dental care reported by hospitalised children	Hospitalised children age 3-12 years	120	Cross-sectional	A high prevalence of unmet oral health needs and soft tissue abnormalities was identified in a hospitalised pediatric population, 28% have never seen a dentist. Unmet oral health needs (e.g., untreated dental caries) were noted in 42% of children, and soft tissue (mucosal) abnormalities in 59% of children. Children with chronic medical conditions reported barriers to receiving dental care more often (24%) than children with acute medical conditions (3.5%)

eligibility for services.[12] The Medicaid Early Periodic Screening, Diagnosis, and Treatment (EPSDT) in North Carolina[13] and Dental Case Management Program (DCMP)[14] was effective in increasing Medicaid beneficiaries use of services, increasing dentist participation in Medicaid, and increasing oral health literacy and treatment compliance among client with low incomes. Higher Medicaid payment levels to dentists were associated with higher rates of receipt of dental care among children and adolescents[15] while a community-based randomised trial of postcard mailings for low-income children in the Yakima County did not significantly increase utilisation of preventive dental services.[16]

Study retrospective cohort to examine access to orthodontic services among Medicaid-enrolled children and adolescents in the Iowa Medicaid represent the rate of orthodontic utilisation was 3.1%, Rural residency and increased travel distances do not appear to act as barriers to orthodontic care for this population.[17]

The identified potential determinants of oral health and dental use among children living in foster care included: (1) linguistic and cultural barriers; (2) lack of dentists willing to accept children's Medicaid dental insurance; (3) lack of resources available to caseworkers (i.e. substantial caseload burden) (4) lack of federal funding for specialized dental care; (5) lack of systematic health record-keeping; (6) child transience, leading to the lack of a dental home; (8) foster parents' competing needs; (7) child behavior problems; and (9) lack of dental 'buy-in' from adolescents.[18] Study on mistreated youth living in urban Los Angeles, Caregivers reported similar rates of physical health problems but more mental health problems and psychotropic medication use in mistreated youth than in the comparison youth, suggesting that maltreated youths' higher rates of mental health problems could not be attributed to the disadvantaged environment although there were no differences in health insurance coverage.[19]

Study at Homeless population in the UK, most homeless people had a normative need for dental treatment, but flexible attendance tended to result in multiple visits and delayed outcomes, which they could have acted as barriers to care.[20]

In India, the percentage of children affected by dental caries in the civilian area was found to be significantly higher than in the military sector. Factors identified to positively influence the dental attendance pattern of children were found to be a high level of the mother's education, the child's previous caries experience, regular dental check-ups by the parent, and higher frequency of tooth-brushing by the child.[21] Socioeconomic status does play a role in the dental care-seeking behaviour of US military families.[22]

Children with autism spectrum disorder (ASD) who display challenging behaviour have barriers to care in both the home and dental office.[23,24] There were no significant differences in dental home rates by ASD status during pre-implementation, initial implementation, or maturation. There were no significant differences in preventive dental utilisation by ASD status during pre-implementation or initial implementation, but children with ASD were significantly less likely to utilise preventive care during maturation.[25] Intellectual and developmental disability (IDD) children face additional barriers to receiving dental care and may be at higher risk for dental disease; they utilise preventive dental services at the same rate as non-IDD children.[26] Children with chronic medical conditions reported barriers to receiving dental care more often (24%) than children with acute medical conditions (3.5%). A high prevalence of unmet oral health needs and soft tissue abnormalities was identified in a hospitalised pediatric population.[27]

An Innovative Project Breaks Down Barriers to Oral Health Care for Vulnerable Young Children in Los Angeles County, indicated twofold increases in delivery of both diagnostics and treatment visits for young children, and a threefold increase in preventive services for young children during the program. The project funded infrastructure and staffing, provided technical assistance to improve operations, trained clinical personnel to provide oral health care to young children, implemented a quality improvement learning collaborative, educated parents and child care providers in oral hygiene and healthy habits, and disseminated information to promote effective policies.[27]

The other potential strategy to improve access to care and to reduce disparities among

America's children is developing and deploying dental therapist. The preventive care provided dental therapists has been documented to be equivalent in quality to that of the dentist and more economical.[28]

DISCUSSION

This review shows that barriers to utilisation of dental services are almost the same throughout the world. Studies conducted in developing and developed countries show almost the same causal factors. Research in India, Spain, Canada and the USA showed the same barriers which were parental education and low income. The low income and education level of parents makes the perceived need for dental care to be low. Only in the UK show different results where the barriers that play a role are multiple visits and delayed outcomes.

Children with ASD and IDD show different obstacles in receiving dental care, namely behavioural barriers. Whereas children with chronic disease usually have soft tissue abnormalities.

According to Andersen Framework of Health Services Utilization[29], an individual's access to and use of health services is considered to be a function of three characteristics.

Predisposing factors is the first characteristic, which is the socio-cultural characteristics of people that exist before their illness. The predisposing factors consisted of social structure (education, occupation, ethnicity, social networks, social interactions, and culture), health beliefs (attitudes, values, and knowledge that people have concerning and towards the health care system), demographics (age, gender).

The second characteristic is the enabling factors, which is the logistical aspects of obtaining care. The enabling factors consisted of personal or family (the means and know how to access health services, income, health insurance, a regular source of care, travel, extent and quality of social relationships), community (available health personnel and facilities, and waiting time), possible additions (genetic factors and psychological characteristics).[30]

The third is the need factors, which is the most immediate cause of health service use, from functional and health problems that generate the need for health care services. Need factors comprised of perceived need, which will help to understand care-seeking and adherence to a medical regimen. While evaluated need will be more closely related to the kind and amount of treatment that will be provided after a patient has presented to a medical care provider. Further, perceived means how people view their general health and functional state, as well as how they experience symptoms of illness, pain, and worries about their health and whether or not they judge their problems to be of sufficient importance and magnitude to seek professional help. On the other hand, evaluated represents a professional judgment about people's health status and their need for medical care.[31]

People who under dental and health utilisation rates have a weakness in three of these characteristics. Minorities ethnic, immigrants, low education, have less predisposing factors. Groups of low-income, uninsured and away from health facilities, lack of enabling factors. Whereas the lack of perceived need weakens the need factor in seeking and utilising health and dental care facilities. Cost is the most reason why unmet dental or health services, acceptance of Medicaid by neighbourhood-based and/or school-based services in low-income communities may reduce barriers use dental care.

In Indonesia, the study used secondary data from Indonesia National Socioeconomic surveys (Susenas) for 1999-2009 suggest the use of dental care services is more dependent on the ability to pay than on the need for care.[30] People who lived in rural areas, who were uninsured, had higher unmet dental care needs. The perceived demand for and utilisation of dental care among Indonesians was found to be low.[31] Indonesian government had implementing universal health care coverage since January 2014 to increase the quality of and access to medicines and medical treatment, especially in primary care facilities for poorly people.

CONCLUSION

Children and adolescent of low-income families, minority ethnic, and disability condition is less of dental care utilisation. The identified potential determinants of oral health and dental use among

children and adolescent are a financial barrier, uninsurance, and availability dental services provider.

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