ORAL HEALTH EDUCATION

"FOR THE PEOPLE"

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INTRODUCTION

John Dewey states that having a society that is knowledgeable is the fundamental premise of having a democratic society. He states that without knowledge, it would be difficult for individuals to make decisions that could be deemed democratic (Dewey, 1897). Further to this, Dewey states that, "Education is the fundamental method of social progress and reform." (Dewey, 2005, pg. 80). These are thought-provoking comments, propositions from over one hundred years ago that should elicit some thought from us when we think about solutions for our contemporary problems.

One of these problems is dental disease. Despite advances that have been made within science over the past 100 years, dental diseases still remain prevalent within society today. Fluoride introduction into water and toothpastes in the mid 20th century was hailed as one of the top ten greatest public health achievements during the 20th Century (CCHD, 2004). Despite the triumph of attenuating disease through public health measures like the fluoridation of water, dental disease is still very prevalent today within certain segments of the population. A recent report of the American Dental

Association stated that within children, "a silent epidemic of untreated dental disease is seen in stark severity amongst poor children." (ADA, 2000). Economic globalization has advanced in development and there has been a simultaneous increase in the resource disparity between the rich and poor segments of the population (Hobdell, 2001). The result of this for oral health has been a decrease in the level of resources for some of those who suffer from oral diseases. As such, there has been an increase in the incidences of oral diseases, as access to care for marginalised groups has been limited (Hobdell, 2001).

Given this additional background information and referring to the ideas raised by John Dewey, the importance of developing effective oral health education programs for prevention of disease become an even greater priority for society. History has shown us that education can provide a platform from which broader social development can take place. This was seen within history in places like Antigonish, Nova Scotia, where programs fostered by individuals like Father Moses Coady, showed that education for the people can be a liberating force (Selman et al, 1998). Knowledge should serve the needs of the people above and beyond the needs of other interest groups.

"Knowledge for the people", was shown to be a liberating force, and it can be today as well if it is given the opportunity (Welton, 1989).

A trend that can be seen within literature in the dental profession is about using education as a means by which clinicians can secure a societal value for oral health. Many articles identify the guardian responsibility that the profession has been entrusted with for the protection of the public (Catalanotto, 2005). These articles convey the message that the profession of dentistry is a member of a team within society that has the duty to protect its oral health. This team is comprised of members from both the private and public sectors. The important point to derive out of this is the composition of the team and the outcome of this team relationship. As a guardian, the dental profession needs to ensure that the outcome of team ventures is one that supports the principle of "knowledge for the people". However, at the current state, the purpose behind many of these outcomes appears to be for a commercial purpose. How can this be changed? Clinicians as educators have a social responsibility to take their guardian role to address the gap that exists within society in terms of disparity within oral health and ask how education can be used as a liberating force from disease.

The education programs that have been developed for commercial purposes represent more of the banking style of education that Paulo Freire spoke of and wrote passionately against (Freire, 1972). Banking information within people does not confer upon them the ability to use that knowledge in a meaningful way. Healthcare educators have to promote programs aimed towards the prevention of disease, given their guardian responsibility to humanity. "Give a man a fish and you feed him for a day. Teach a man to fish and you feed him for a lifetime" (Anonymous). Developing oral health education programs that can liberate the individual from the grasps of disease should be the goal for all clinicians. The basic tenet of these programs needs to develop the ability of an individual to take knowledge and be able to freely apply it. Being given knowledge and the ability to think is the basis of democracy and is also the basis by which a more significant result can be achieved for the individual and for society as a whole.

Education for this purpose needs to be radical. It should not be something that can be corporated, placed into a box and sold to the masses. The outcome of oral health education is more effective when education programs are implemented by individuals for individuals, as opposed to large

groups. Education has to be sensitive to cultural and community issues that can be obstacles to learning, and that also aid the learning process. It needs to be able to create sufficient dialogue between clinician and patient, such that communication can be efficient and a learning process facilitated. Education programs need to recognize that change is the outcome or the end result. As such, participants in education must recognize this possibility and be open to change, regardless of the outcome.

COMMERCIALIZATION "KNOWLEDGE FOR SALE"

When one picks up any contemporary dental publication these days, it is difficult not to notice that the issue of dental education is viewed as a priority by the majority of North American Universities. Most of these articles cite that funding cuts to Universities have made it a challenge for dental education programs to continue to foster faculty development and produce research work that can solidify the promise that oral health can become a reality for all members of society. In one recent publication, it was noted that the Dean of the school had stated that if corporate and private funding levels were not increased for the Faculty of Dentistry, that they would face possible

bankruptcy and that this could produce a severe ripple effect in the level of oral health for society (Crosaril, 2005).

Oral Health is an issue that was largely ignored by the Romanow Commission Report of 2002 (Romanow, 2002). This paper was cited as being a blueprint for the reformation of health care in Canada. In its 392-page report, oral health is mentioned casually nine times, the issue is largely minimized and no gaps for funding or development are identified (Mock, 2004). The outcome since this report was published in November of 2002 has been no increased funding for oral health care delivery, education or research. This report was applauded by those within organized dentistry in Canada (Mock 2004).

In stark contrast to this message, the United States Surgeon General's report of 2000 conveys a different message. This report identifies large gaps that exist within the oral health status of Americans. It cites a need to alert Americans about the importance of the relationship between oral health to general health and well being (Satcher, 2000). Alerts that include the fact that Oral Health means more than just healthy teeth; that oral health is integral to general health; that there are safe and effective disease measures that all members can adopt; and finally alerts that communicate the known risk factors

to effect oral and craniofacial health. The result of this report was increased funding for oral health care delivery, research and education (Mock, 2004). This funding was seen in the format of greater participation of both the public and private sectors.

The problems that arise in times of fiscal concern can impact upon how the goal of oral health promotion and education are implemented. In his report of 2000 the US Surgeon General, David Satcher, outlines that oral health is a priority.

> Yet as we take stock of how far we have come in enhancing oral health, this report makes it abundantly clear that there are profound and consequential disparities in the oral health of our citizens. Indeed, what amounts to a "silent epidemic" of dental and oral diseases is affecting some population groups. This burden of disease restricts activities in school, work, and home, and often significantly diminishes the quality of life. Those who suffer the worst oral health are found among the poor of all ages, with poor children and poor older Americans particularly vulnerable. Members of racial and ethnic minority groups also experience a disproportionate level of oral health problems. Individuals who are medically compromised or who have disabilities are at greater risk for oral diseases, and, in turn, oral diseases further jeopardize their health. The reasons for disparities in oral health are complex. In many instances, socioeconomic factors are the explanation. In other cases, disparities are exacerbated by the lack of community programs such as fluoridated water supplies. People may lack transportation to a clinic and flexibility in getting time off from work to attend to health needs. Physical disability or other illness may also limit access to services. Lack of resources to pay for care, either out of

> pocket or through private or public dental insurance, is clearly another barrier. Fewer people have dental insurance than have medical insurance, and it is often lost when individuals retire. Public dental insurance programs are often inadequate. Another major barrier to seeking and obtaining professional oral health care relates to a lack of public understanding and awareness of the importance of oral health….
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> …To improve quality of life and eliminate health disparities demands the understanding, compassion, and will of the American people. There are opportunities for all health professions, individuals, and communities to work together to improve health. But more needs to be done if we are to make further improvements in America's oral health. We hope that this Surgeon General's report will inform the American people about the opportunities to improve oral health and provide a platform from which the science base for craniofacial research can be expanded. The report should also serve to strengthen the translation of proven health promotion and disease prevention approaches into policy development, health care practice, and personal lifestyle behaviors. A framework for action that integrates oral health into overall health is critical if we are to see further gains. (Satcher, 2000, p.5)

Satcher identifies that a team effort is required to provide a meaningful solution. He outlines many areas where focus can be placed in terms of finding a solution. Given fiscal realities however, when education is subject to market forces, will the outcome fulfill the mission? It is not my position to state that funding should be directed only in certain areas. In a utopia, health is a concept that should not be subject to budgetary restrictions. As a clinician I treat patients, not budgets. However, budgets and fiscal restraints are a reality

of the society within which we live. Universities have identified funding gaps, however the real funding gap for education is at another level.

Given their fiscal concerns, our universities and other regulatory bodies have entered into strategic partnerships with corporate partners that despite their best intentions, limit the transparency with which they can function. Competition and individualism for funding can limit the educational ventures of these institutions as the guardians of oral health care. I do not challenge the fact that these organizations seek to improve society, rather that their vested associations limit them, as they are reliant upon the funding that these associations provide. Oral health education program with these organizations at the helm are potentially subject to transformation into corporate propaganda. These types of messages can cloud the ability of education to serve the needs of the people by excluding many,"…important educational and societal concerns." (Gouthro, 2002, p.1) Dr. Gouthro states that:

> This agenda has been enthusiastically embraced by government and is shaping the educational policies of our universities and colleges to develop a narrowly constructed concept of lifelong education that benefits capitalist interests in industry by encouraging people to compete as educational consumers and producers. Within this context, the wider concept of lifelong learning has been conflated to mean lifelong training. Education that focuses on the broader goals of

> democratic citizenship or attends to the concerns of women and minorities is given low priority. (Gouthro, 2002, p.1)

As stated earlier, knowledge needs to work for the people above and beyond the needs of other interest groups. Given the mission outlined by the US Surgeon General and reality of the constraints of the joint venture delivery system in place, funding to create and develop oral health education programs that can fulfill the mission have yet to be seen.

In 2003, the US Surgeon General stated in a report on ageism before the US Senate, "We can no longer afford to have Americans believe oral health is separate from their general well-being. Improving the health literacy of the public, including oral health literacy, is key." (Carmona, 2003) The profession as guardian, needs to lobby for greater funding for accessibility to care and also education ventures that can improve the oral health literacy of the public and serve the public needs not corporate bottom lines. Furthermore, the profession needs to formulate a strategy by which it can promote greater individual promotion of oral health by those who work at the front line of care. Dental professionals are in the best position to build greater awareness of oral health and facilitate the creation of meaning perspectives that can produce a

real health care outcome for those members of society who need it the most. Professionals need to recognize their roles as educators and clinicians.

BANKING KNOWLEDGE

Paulo Freire writes about the limitations of educational ventures that perform the transfer of knowledge through a system that resembles our banking system. In his 1972 book titled *Pedagogy of the Oppressed* he states that a system of education that merely banks knowledge into people and then withdraws knowledge through some mechanism of trained behaviour is not the best form of liberating education. Freire describes this as a system that does not lead to any type of social development in which the learner can take knowledge and freely apply it in the absence of the environment in which that learning process took place (Freire, 1972). Given these points, it becomes clear why the Surgeon General in 2003, was more specific about the key status of oral health literacy in the improvement of oral health. Having said this, is it possible for large organized dentistry to be able to avoid this banking form of education for society? Is it possible for a mass-scale education program to be able to connect with people and create the type of dialogue that is necessary to

create an ability to use knowledge in a free manner? If the ability to think and use knowledge freely is the goal, then the answer would be no. Large-scale venture are subject to becoming too large in scope and being targeted by other interest groups that seek to also benefit from the venture. This form of corporation of message can limit the ability of these types of educational ventures from achieving the end-state for which they were created and for the people for whom they were created.

Freire discusses the importance of open dialogue in enhancing the educational experience for the learner and thus the learner's ability to use the outcomes of the experience (Freire, 1972). Beyond being subject to corporation, centrally organized programs also lack this ability to create open dialogue. Given these points, if the goal is to have an outcome that will empower the learner to be able to use the outcomes of learning for broader social development, then a mass media approach will not work. Oral health education in this respect needs to be radical in philosophy. It needs to be free of structure, as structure promotes corporation. These points provide further support for the argument that oral health education programs for the people will not be the product of Universities or any other large organization. Despite

tenure positions and corporate charters, unfortunately these organizations are the targets of corporate interests and as such can never evade this problem. Even if funding was restored through the government to reduce or even remove the reliance of these groups upon the private sector, these groups have evolved into their own form of private enterprise. Alan Tough in a 1988 interview, responded to the question, "Are there any dangerous trends in adult education today?", with:

> Well, to be perfectly frank, the most dangerous development I see is an over-emphasis in some institutions on marketing to the neglect and detriment of all other aspects of those institutions. All efforts seem to be geared towards attracting people who will pay for courses, and sometimes that means the quality of the courses suffers. What people actually learn and how useful that is to them is neglected. The biggest concern I have about the field is that we will become preoccupied with the number of students and the numbers of dollars and that institutions will become obsessed with how to grow and how to attract more people, without paying enough attention to what it is their students are learning and whether this is useful. (Brindley, 1988, p. 10)

To consider these publicly funded organizations as champions of the guardian role would be a mistake. Our universities have evolved into large corporate entities that are subject to the same corporate interests that make them a healthy target for enterprising capitalists. Activity-based costing principles and a focus towards the bottom-line are my experiences during my

eleven-year career as a student in University. If society is to rely upon large organized dentistry to provide it with a solution, it may never materialize. The only outcome that such a structure can provide is similar in nature to the banking style of education that meets the joint needs of the capitalists that exploit that form of oppression.

WHERE IS THE SOLUTION?

Where should the focus then be? If large groups are subject to corporate corruption of the social message, how can an oral health education strategy that can free those burdened most by the effects of disease, be implemented? The simple solution would lie in the leadership of the dental profession to encourage professionals to educate members of society step by step at the individual level. Is this an easy solution? The answer is no, however that does not justify any reason to cease an attempt.

This may not have been possible years ago, however, current resources and capabilities in research and technology have facilitated a rapid increase in the ability for people to attain oral health (Schwarz, 2002). Leadership in the profession should foster a paradigm shift in the way the health care profession

thinks in order to take the advances within science and technology, and convert them into a material health outcome for society. This may imply that members of the healthcare profession as a whole need to take a dialectic view upon their role as not only healers but also as educators. If research and technology have brought forward an improved capability to provide knowledge to the people, then these advances should be utilised strategically to achieve an outcome for society.

Why should individual members of the dental profession care? Gushue wrote about the concept of the social contract in 1998, that "…self-regulation is not an entitlement. It has been granted to us by society along with certain responsibilities. Essentially, society has allowed organized dentistry to regulate itself.... In return, society expects organized dentistry to exercise the leadership necessary to ensure that the members of our profession serve and protect the public…" (Leake, 2005). Mouradian adds that, "without leadership to act in the public good, dentistry risks irrelevance (Leake, 2005). This may be an uphill battle for regulators given the fact that our current economic system does not provide much financial support for preventive care, and the reality of the situation for most clinicians is a world where they have financial

responsibilities in running a practice. There is some ground for the profession to give, convincing those who have benefited from the financial rewards to the benefits of a healthy society will be a challenge for leaders within the profession. Recently Gordon Christensen, a well-respected member of the profession, raised the issue of ethics and the ingress that commercial interests have made with respect to control of the profession. He states:

> I have had enough! I do not like the new unethical face of my profession, where incessant seeking of more money has replaced service to the public, honesty, and self-respect…All of us need to improve, including practitioners, speakers, dental schools accomplishing research, manufacturers, editors, and evaluating groups. It is time to return to honesty and to dealing with our fellow men and women in the way we would want to be treated ourselves. I do not think it is too late. (Christensen, 2004, p. 83)

The challenge for the profession is a delicate game of leadership, politics and management of their guardian position. The consequence of not meeting this challenge is a failure to meet the needs of the government bodies that have identified gaps in oral health, and this may give power to others who may propose solutions that can narrow the gaps.

THE DEFINITION OF ORAL HEALTH

If the oral health practitioner is in the best position to promote oral health education for the people, how can this be done? To begin, the message or meaning of oral health needs to be defined. For the novice educator, this definition can be a misnomer. Many education programs that promote oral health fail to describe objective criteria that can be used to assess the attainment of success. Success should be a definition that is based upon the ability of an individual to have the capability of understanding a number of things. First, a program needs to be able to define oral health. Oral health is a combination of many factors. These factors can be the absence of decay in teeth; gums that do not bleed; supportive joints, muscles and tissues that are also healthy and disease free; and finally teeth that are functional and aesthetically pleasing (Khan, 2004).

Beyond defining health, an education program also needs to be able to allow its learner to have the ability to distinguish between health, disease and the process by which disease takes place. When this task is accomplished, there exists a base from which the rest of a program can develop. The educator

can now focus learning upon factors that contribute towards being in either a state of health or disease, and the processes that link the two. The learner is then more capable of gaining a better understanding of the complex that governs how the disease process takes place. They are also more capable of being able to actively participate within a program that maximizes upon their ability to attain health.

With this point in mind, the technical requirements, there exists a need for an education program to be able to motivate its learner. Motivation is the force that drives an individual to take action in light of knowledge. As stated earlier, merely banking information within people will not suffice to motivate them beyond their current habits. For real change to occur, a program needs to be able to engage the learner and facilitate open dialogue such that a common understanding of the benefits of health are mutually understood. Education needs to be able to give the learner an ability to be able to use knowledge freely (Freire, 1972). Without this capacity, education lacks the ability to provide freedom. Once again, the task of creating open dialogue is not one that can be mass-marketed; it requires much individual tailoring and can be a

long and lengthy process, which is why it is more conducive to small scale radical education efforts.

COMMUNITIES OF PRACTICE

Etienne Wenger proposes a theory that analyzes the way in which humans can learn from each other and use knowledge to guide our behaviours (1999). This theory proposes for the development of an agreement between at least two individuals that function as a joint enterprise. Within this joint enterprise, members of the community establish meaning through negotiation or communication to lead towards an agreement or understanding of a subject. This agreement then forms the basis around which a communal identity, that forms solidarity amongst its members, is created (Wenger, 1999). Further to this, the agreement or understanding, and the identity and solidarity that arise from it, provide the motivation for collective action from the membership (Wenger, 1999).

In theory, this proposal can be used to guide the creation of an oral health education program as it provides some excellent analysis of points that are of real use to an oral health educator. The concepts of joint enterprise and

meaning through negotiation are two aspects that many oral health education programs fail to recognize as vital. Failure to develop joint meaning results in a lack of a common ground from which the rest of the program can develop. The goal of a program, despite the obvious behaviourist philosophy implied, is to create an understanding that is flexible and compassionate to both the learner and the educator. The goal is not domination through the exchange of a boundary object that separates the two groups. This sort of exchange does not lead to the form of identity and solidarity that Wenger theorizes. Rather it leads to isolation and failed communication, in which case the ultimate goal of collective action, becomes an afterthought. Wenger's theory is a useful tool for the oral health care educator as it allows for an open and non-corporated mechanism whereby clinician and patient can fulfill the task of "education for the people."

STRATEGIC FACTORS IN INDIVIDUAL ORAL HEALTH EDUCATION

Designing an oral health education program can be a challenge for any oral health advocate. There are many unique challenges that one can face when confronted with the task of developing a program; especially for those

from marginalised backgrounds that for the most part are ignored through the structure of national programs. A review of previous oral health education programs documented within literature can be of assistance to an educator who is planning to conduct an oral health education program. Literature-based programs highlight many of the factors that need to be considered prior to implementing any program. These factors become amplified for the oral health care advocate as they are factors that are too easily ignored or overlooked, yet play a role in the ability of the educator to function.

One of these factors is accessibility. A study by Bedos in 2004 found that financial and cultural barriers were a significant impediment to lower SES members in accessing dental care in Quebec. Social inequalities were seen to result in a difference in the demand for care and this implies that these groups also did not have the same level of knowledge about dental disease and prevention than those in the upper SES segments. The lack of knowledge and the variance that can exist within the subset of the low SES population becomes significant to the educator that seeks to facilitate dialogue. As discussed in the definition of success, an oral health educator needs to establish a baseline level of knowledge in order to create a necessary level of open

dialogue to bring about the motivation for action. Access is not strictly defined as being able to see a professional. It is equally important to create access to dental knowledge and to assess the knowledge level at which the target group for an educational intervention is.

Another factor to consider is targeting. As identified in the Surgeon General's report, many of those who suffer from the greatest burden of illness are those who do not access the system. Building upon the previous discussion, they do not know about their state of health or do not have the resources needed to access care. How can the profession target these individuals as they are in the greatest need and can benefit the most from a program aimed at providing democratizing knowledge? This factor also becomes a greater challenge when these groups cannot be found using databases. A study by Locker searched for children with unmet dental care needs via the tax system (Locker, 2004). This study noted however, that this information was readily available through government data but it did not include children from destitute families or those with no address. Some of the challenges of targeting can be alleviated to a certain extent thorough informal brokerage of knowledge through expansion of communities of practice via

informal communication channels (Wenger, 1999). However this method would assume that the two groups have a means by which they can communicate with one another. Targeting the groups that can benefit the most from an oral health education program is difficult in some circumstances and may be more of a long-term goal. Nonetheless, it should be considered and may require the assistance of other parties in order to facilitate oral health education.

Perhaps the greatest challenge that oral health care educators face with oral health education is dealing with perceptions or uncritically acquired meaning perspectives. A study by Borrell found that there was a difference in the perception of general and oral health in American adults from different SES backgrounds. His study noted that those from the lower SES segments were more likely to rate their health status as fair or poor (Borrell, 2004). This pattern of belief was also seen in a study by Sanders in which Australian low household income, blue-collar occupation and disadvantaged residences were more likely to have a lower self-perception of their oral health (Sanders, 2004). In these studies there appears to be some form of learning process that has imparted a sense of poor health amongst the lower SES segments. As human

beings, we have a capacity to culturally learn from one another and incorporate this information into knowledge that can affect our actions (Tomasello, 2000). It is as though these groups have accepted fair or poor health as a reality as compared to the higher SES segments. Assessing general perceptions of what the meaning of health is, dealing with misperceptions and finding an understanding with those within the lower SES groups, is a challenge for an oral health educator.

Tim Ingold discusses the concept of the creation of dwellings or environments within which we as humans engage in cultural learning processes (Ingold, 2000). From an anthropological view, we cannot discount the basic nature of our existence as humans when we design oral health education programs. A study in Quebec by Benigeri assessed the knowledge and perceptions of 13-14 year old adolescents regarding oral health. This study found that their perceptions of oral health were strongly influenced by norms, culture and environment (Benigeri, 2002). The study of 1300 adolescents revealed that there was a perception of fear of dentistry in one third and most knew about the benefits of toothbrushing. However, the knowledge regarding the importance of fluoride & sealants was inadequate and there was

also a false perception amongst the adolescents, that tooth loss was a normal consequence of age. Aesthetics were noted as being more significant to these adolescents than the quality of their teeth. The author of the paper suggests that if public health policies are to be effective, they need to leverage the ability of the program to work within the context of the norms, culture and environment within which they will get a desired response from the target group. Wenger would argue that this would be an example of developing meaning or understanding within the context of the environment (Wenger, 1999). Educators can get their message across to their target, however the message has to be communicated to develop meaning within the environment within which the target group will selectively negotiate. An education venture that lacks the ability to engage the learner will fail before it begins. This point would support small-scale individual programs that can be made in these niche environments, mass-marketed programs that are centrally created, will find it challenging to engage learners from this marginalised segments.

Tewari conducted a survey on the oral health practices of 3247 individuals in rural India, the results of this survey revealed the type of gap that can exist in meaning between health professionals and the public. In this study

most people indicated a preference in using datun as 56% used it as an oral hygiene tool. Datun is a stick that people use to clean their teeth. Only 37% knew that the brush was the best oral hygiene tool and only 1.8% of people surveyed in the study used fluoride toothpaste. The study had noted that the utility of fluoride as a preventive agent was unknown to most people (Tewari et al, 1991). The analysis of this study adds to the list of arguments for developing oral health education programs that have the ability to negotiate meaning and understanding.

A lack of access to care is expected to be associated with a lack of oral health knowledge and familiarity with the profession. Like a vicious circle of activity, many low income children have a lower utilization of dental care because of fear (Milgrom et al, 1998). This fact becomes a problem for an educator trying to engage a segment of the population as many disease-stricken children will be fearful to engage in any program in which the topic is something which is feared. Given this fact, there may be some merit in adopting a Frontier College model of establishing credibility with the target group (Scott et al, 1998). An oral health educator should seek to develop activities with their target that can allow the educator to work with them in a

friendly non-threatening setting so as to build rapport. The other option is to use an agent who has rapport with the group, to act as the education agent. The downfall of this option is the possibility that knowledge is not transferred efficiently through the agent as an additional layer is introduced into the learning process and thus this becomes subject to similar corporate forces that make large scale education ventures ineffective.

Culture can be a factor in oral health education as well. A 1992 study by Esa used a structured questionnaire to gauge beliefs about oral health amongst mothers from different cultural groups in China, Malaysia and India. The group that appeared to be the most knowledgeable in terms of oral health were from China and the least from India. However, in the Chinese group 40% still believed that tooth decay was primarily hereditary. In terms of where dental knowledge came from, sources of information were cited as being mostly from television, radio, dentists, school and family. In the Chinese and Malaysian group this order was also the order of value of the information. In India however, family was second in terms of importance (Esa et al, 1992). No oral health education program can be entirely transnational, however this study brings forth a few questions that oral health educators need to consider.

First, what the common beliefs of the target group are, and second which sources of information carry the most value? If an educator seeks to facilitate change, they have to recruit those with the power position necessary to facilitate collective action for their target group.

A shotgun approach to education, like mass marketed programs, is not an effective tool to promote changes in practice. As discussed in the Wenger discussion with regards to defining meaning and facilitating negotiation, a shotgun approach does not take into account individual differences in understanding and as such will lead to a less likely chance that agreement and action will be the outcome (Wenger, 1999). A study by Weinstein documented that a personal motivation program in conjunction with a handout and a video for parents of infants in a high caries risk group was promising. It was successful in leading parents to accept recommendations about preventing caries in their children as compared to a group of parents who had only received the handout and video (Weinstein et al, 2004). This highlights the fact that personal counseling has its merits, as it facilitates more fluid negotiation and in the Wenger model, this will more likely lead to collective action on the part of both parties involved in the negotiation.

Shades of the Wenger model can be seen in a study on diabetics in 2003. In this study the focus was placed upon the creation of joint agreements between patients and providers for treatment goals and strategies (Heisler et al, 2003). The results showed that higher-level treatment goals for the providers were rarely met with agreement, however the agreed upon goals were more likely to be followed by patients. This study supports the design of the Wenger model as it displays the power that the act of negotiation though open dialogue can have upon collective action.

PAST ORAL HEALTH EDUCATION PROGRAMS

Past oral health education programs are a valuable source of information for oral health educators. These ventures provide knowledge to the user in terms of what factors need to be considered for successful planning.

A program implemented in Manhattan found that the use of sociologist to interview kids using an open questioning format resulted in the creation of a relationship that was useful in gaining trust and acceptance within a group of low SES children for whom an oral health education program was planned (Diamond et al, 2003). This program acknowledges that the value of trust and

credibility between the target group and the educator, can affect the outcome. This could be hypothesized as having an effect upon the quality of the communication that would exist between the two groups. Nonetheless, an educator needs to consider how they can gain the trust and confidence of their target group through any means by which they can leverage the existing social structure of the group. This would imply that the educator needs to have a lot of knowledge about their target group. Bhat found that social, cultural and religious infrastructure are sometimes the best assets to the educator to leverage for introducing social change (Bhat, 1999).

Beetstra's "Health Commons Approach" study in 2002, highlighted the benefits that can be attained when a multi-disciplinary holistic approach is used to promote oral health. (Beetstra et al, 2002). This study was used to promote oral health for low-income populations in rural New Mexico, USA, by incorporating oral health education into the health commons primary care model. The result of the program was improved access to care for low SES individuals. There was an urgent awareness of the need for such a program within the health care community and as such it was readily supported by many agencies. These agencies included community leaders, safety net

providers, legislators, insurers, public health, medical and dental providers. Beyond the benefits of bringing more groups on board, that shared the same holistic goal of health, is the fact that this program was conducted within an environment in which the need for such a program was understood. Oral health educators must be able to assess the environment within which they seek to implement change. If the environment is not one that has the right support from the groups that are needed, the educator must formulate a plan to close the gap between the support level in place and that which is desired.

Piggybacking oral health promotion programs with general health promotion programs can be beneficial. A study in Norway found that in lower SES groups of 25 year olds, there was a justification to plan and implement holistic programs that targeted higher levels of motivation for intervention (Anstrom & Rise, 2001). They found that oral and general health behaviours reflected two distinct behavioural domains and thus advocated that they should be approached jointly in health promotion. The benefit of such programs may be in the possibility that behaviour is an extension of other cognitive domains and that intervention at this common domain level could pull in a desire to achieve oral health along with general health.

The advantages of a well-designed oral health education program were seen in a study in 1999. The group of Kapadia et. Al, implemented a program entitled "Bright Smile Bright Future". In this program a professional educator was used to create a program in which parents and children were given information about oral health. The educator was used to train teachers in the skill of oral health education, as they would be providing oral health education for the children. The results showed a significant difference in reduction of plaque levels after two months, between the control and experimental group (Kapadia et al, 1999). This study brings out two very important points, first that the use of a professional educator in designing a program has its merits as these individuals are cognizant of the impact that education for the people is more than just banking information. Second, that the actual skill of teaching is a capability that needs to be considered as an asset that health care educators should procure. The message throughout this paper has been one that the outcome of a program should be knowledge transfer, not knowledge banking, and an understanding of how to avoid this process is useful for the educator.

One of the best recent oral health education programs for children was published in 2003 by Harrison and Wong. This program was focussed on

promoting oral health in an urban minority population of pre-school children. The designers had segmented the study into four phases: information gathering, project planning, project implementation, and project evaluation (Harrison et al, 2003). The outcome of these steps was an excellent strategic analysis and implementation of an oral health education program. As such, this seven-year study was able to bring forward many useful points. The most valuable for the purpose of this paper, is that the use of a layperson with a similar culture and an ability to engage a parent, is an effective tool to facilitate adoption of healthy behaviours. The study was focussed towards providing oral health education to parents of a Vietnamese background. They had used a layperson who could communicate knowledge to the parents in simple terms (Harrison et al, 2003). This reverts back to the discussion of effective dialogue to create meaning and understanding amongst parties. Failure to recognize areas in which these communication pitfalls can occur, can jeopardize the success of an education venture.

WHO IS AN EDUCATOR?

The term educator should not be restricted by definition to only teachers within an institution. Learning can take place anywhere and thus the term "educator" should reflect this fact. An educator can be any person who can engage a learner in a process of learning. Oral health educators that seek to be effective need to detect where these learning processes take place so that they can be considered to support an oral health education program.

A lack of ability on the part of those who have a potential to contribute towards the effectiveness of oral health education, is a waste of opportunity. A study in the United States in 2000 found that the oral health knowledge of health care professionals, in particular paediatricians, was insufficient to promote oral health (Mouradian et al, 2000). Health care professionals are the best assets that the dental profession has in terms of people they can collaborate with to promote mutual causes that still maintain some protection from corporate interests. A lack of oral health knowledge within these groups wastes a valuable partnership that can exist to promote oral health.

A study in 2003 found limited oral health knowledge in male health science college students in Kuwait (Al-Ansari et al, 2003). In particular, it was found that many did not know the reasons why it was important to brush twice a day. A lack of knowledge was also related to a lack of action, as only 66% of the 153 students surveyed actually brushed twice a day. Notwithstanding the regional aspect of this study, it illustrates the point that oral health education depend upon all players on the health care team to be able to support and augment the programs of the other health care disciplines. In the case of these students studying health science it was a shame to see that those privileged to have access to knowledge, did not act upon it. A lack of meaning and understanding of the value of this knowledge is a possible explanation.

Beyond being knowledgeable in their respective field and augmenting their ability to facilitate learning, an educator also has to have a strong management capability. Within Health care there is a growing need to conduct the typical management functions of planning, organizing, leading and controlling (Anderson, 2002). Thus beyond having just a mastery of the art and science of education, clinicians also need to acquire an adequate level of

management expertise in order to remain efficient and effective in operations such that oral health education does not take a back seat to fiscal concerns.

STRATEGIC PLANNING AND IMPLEMENTATION

With this discussion of themes and factors that an oral health educator needs to consider, also comes a need to take this information and strategically analyze it. As discussed earlier in this paper, there are many factors that can be critical to the success or failure of any program. A proper analysis and planning stage can minimize the possibility of failure.

Key Questions to answer prior to designing any program:

1) What is the current awareness level for oral health?
    a. What is disease?
    b. How disease occurs?
    c. How disease can be prevented?
    d. Why health is valuable?
    e. Who can provide care?
    f. When is care sought?
    g. Where does learning take place?
    h. What is the oral health IQ of supporting professionals? (Doctors, nurses, teachers, other health care professionals, clergy, etc;)
2) What are the current oral health practices? Are people aware of the need for changes within their practices.
3) Is there an urgent need for change to take place?
4) Is there any structural resistance to the venture which is proposed in the oral health education program?
5) Are all the groups and individuals in a power position, on side for this program to be implemented?

6) Does the group or community have the capability to take the knowledge and act upon it?

Gaining answers to these questions makes it a lot easier for the educator to see the areas in which there exist gaps that need to be addressed. These can be addressed prior to implementing an education program, or concurrently depending upon the scale of the deficiency.

The overall goal of any oral health education program is to build intelligence. This can be defined in many ways but the most useful from a social development standpoint would be one that could be described as analytic, academic, social and practical (Sternberg, 1997). Information banking is not the end result that is sought. As Freire would describe this will not lead to any type of social development in which the learner will be able to take knowledge and freely apply it in the absence of the environment in which that learning process took place (Freire, 1972).

Implementation goals are easy to set, yet difficult to monitor and achieve. Proper strategic planning can alleviate this task, but not make it completely easy. Given the environmental analysis that has already been advocated, the educator can formulate an action plan that can address the

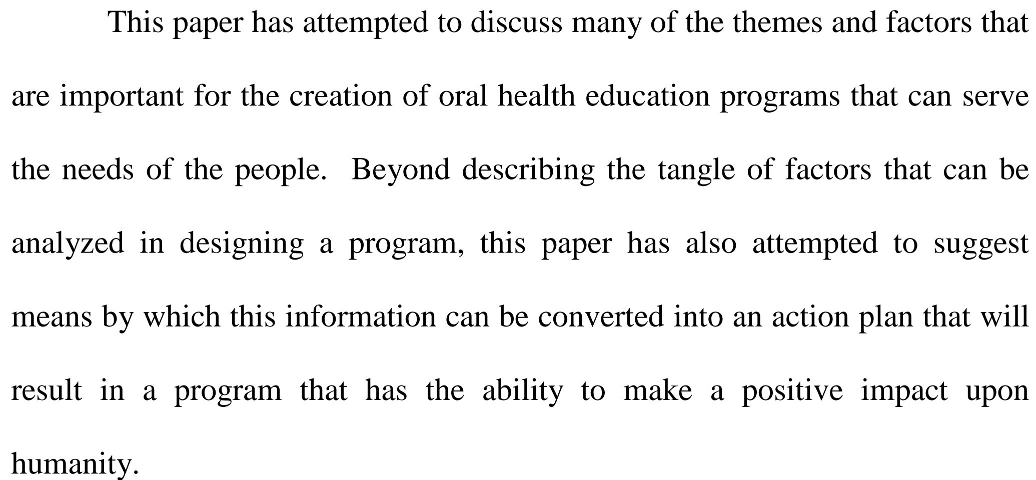
factors that will be critical for a successful outcome for the oral health education.

Finally, there should be some thought about evaluation and feedback of an education program. A useful resource is a book titled Curriculum Development for Medical Education, A six-step approach (Kern et al., 1998). Feedback and evaluation are important in ensuring that education meets the needs for which it was proposed. It also allows for others to learn from the venture, and for improvement and change to be considered.

CONCLUSION

Oral health is tangible item that should be enjoyed by all. The current trends within the global economy have made resources for accessing care more scarce. Marginalised groups are very often the victims of oral disease. Conventional oral health education programs fail to provide meaningful solutions in light of these problems. Conventional programs that are developed by universities and large organizations are subject to corruption by corporate interests. As such, the dental professional is in the best position to

formulate and implement programs that can provide meaningful outcomes for society.



This paper has attempted to discuss many of the themes and factors that are important for the creation of oral health education programs that can serve the needs of the people. Beyond describing the tangle of factors that can be analyzed in designing a program, this paper has also attempted to suggest means by which this information can be converted into an action plan that will result in a program that has the ability to make a positive impact upon humanity.

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