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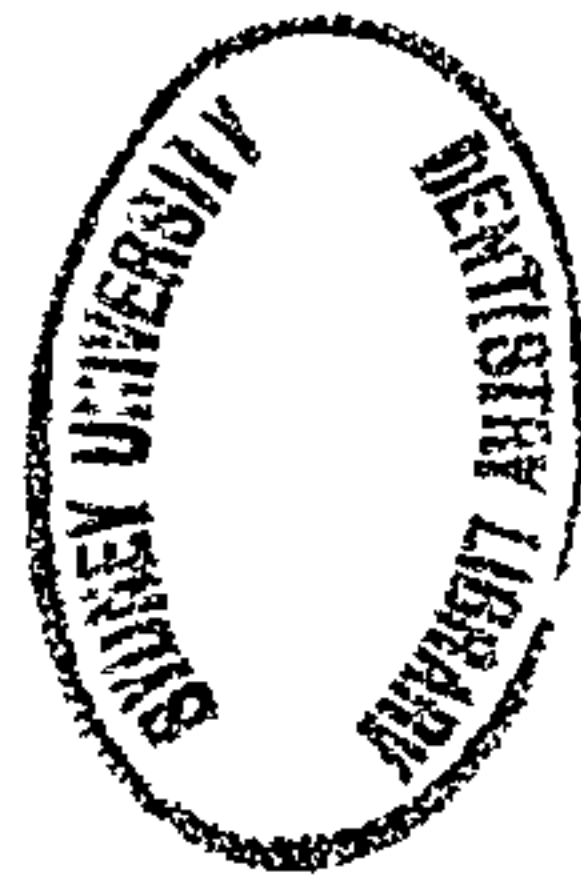
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DENTAL HEALTH EDUCATION
AND SOCIAL ANTHROPOLOGY

VICTOR R. VALDEZ, D.D.M., C.P.H., PHILIPPINES



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I. INTRODUCTION

In the last two decades, the advances gained in the field of science and technology in many parts of the world is tremendous. Its growth, development and expanding dimensions has brought forth a wealth of revolutionary concepts, new techniques, fresh knowledge and discoveries unheard of before. This is borne by the fast turn-over rate of literature, journals and books made available to the researcher, student, and professional today. It is now commonplace to read breakthroughs in communication, interstellar exploration, cybernetics, drug therapy, surgery, diagnostic sophistication, mass disease prevention and control etc...contributing to what is known in contemporary writing as the "knowledge explosion".

Despite the availability of this massive collection of ideas and knowledge, getting through the benefits from this work to its end consumers becomes a problem. ^{1.2.} The benefits for instance

of modern medicine and preventive dentistry cannot reach its beneficiaries because the means to deliver it may not be available and oftentimes the health practitioner fail to understand the human variable. Hence, the application of our available technology and scientific ingenuity becomes the weakest link in ^{3.} the chain of public health endeavour.

Dental Health Education and Social Anthropology, the thesis

will review some literature in health education and the social sciences with a view of relating principles, approaches and concepts to dental public health situations and problems. This thesis is orientated more to the greater number of people which is the public rather than to individuals in private dental practice. Its limits are within the context of developing countries in the Southeast Asian community of nations. In particular, the Philippines, Indonesia and Malaysia.

The magnitude of dental health education problem among these countries is not known. It is safe to assume that dental health education thus far in these countries may range in barely making a scratch so to speak to a point of waging an uphill battle of just placing basic oral hygiene practice within the majority of homes.

The links of health education with social anthropology will be discussed as an aid in understanding the needs of developing countries in dental health education. The presentation of this thesis will be developed within a framework of an hypothesis.

II. DENTAL HEALTH EDUCATION

I. RATIONALE FOR DENTAL HEALTH EDUCATION

In the field of dentistry, health education is a technique which has only recently attained importance. The correction of dental defects became an important field for professional service long before techniques or health habits were discovered

which might prevent dental disease. Only in recent years has a body of knowledge upon such matters as oral hygiene, nutrition (including fluoridation) and early control of dental caries been built up to the extent that it constitutes a respectable item in a school curriculum.

Even now there are many both within and outside the dental profession who fear education about dental health since they feel this will stimulate a demand for dental treatment which cannot be met. The proponent of this view, Dunning⁴ argues, neglect the full value of preventive techniques currently available. If treatment facilities do not exist for all the dental disease which might occur in an uneducated population, education for prevention really becomes more important not less.

Dental disease is almost universal and no specific immunization like means of preventing it has been found, thus dental health protection becomes a paramount concern of all health activities. Teeth are not indispensable structures, such as the heart or the brain. Nevertheless, we have good physiological and aesthetic reasons for prizing our own teeth and for deploring their premature loss.⁵

⁶ Barnard has shown that in New South Wales (Australia) more than 95% of the school children show evidence of caries experience. In the U.S. up to 98 per cent of school children will at sometime in their lives experience tooth decay, diseases of the supporting tissues or other deviations from normal dental

health. The margin of safety for the teeth is narrow compared with that of most other body structure capable of regeneration and repair.⁷

In societies where ignorance and illiteracy prevail, people tend to accept certain conditions of ill health as inevitable, therefore, they accept disease with a kind of resigned tolerance. People continue to live with their disabilities rather than to make the additional effort to avoid or eradicate them. Social acceptance of poor dental health falls into this category.⁸

2. OBJECTIVES OF HEALTH EDUCATION

The objectives of dental health education can fully be appreciated when related to the primary purposes of health education as stated by the expert committee on Health Education of the World Health Organization which include the following:⁹

"A. To make health a valued community asset.

B. To help individuals to become competent in and to carry on those activities they must undertake for themselves as individuals or in small groups in order to realize fully the state of health defined in the constitution of World Health Organization.

C. To promote the development and proper use of health services."

If we accept that health education aims at bringing about favourable changes in health habits, attitudes and knowledge of people through their own efforts and action, then it is obvious

that health education should begin with the interest of people⁹
in improving their condition of living and their way of life.

It also follows that our fundamental problem is of per-
suading people to drop their old habits and erroneous ideas and
to substitute for them new ones. In order to be effective,
therefore, health education must take into consideration in the
planning methods and procedures both the process by which people
acquire knowledge, change their feelings and modify their be-
haviour, and the factors and influence such changes.¹⁰

The interpretation of these aims varies with national and
community needs. As health is determined by behaviour, the aim
is not merely to impart knowledge but to influence attitude.....
In general, the aims of health education are to help people to
recognize their health problems and to persuade them to do some-
thing about it.¹¹

Health education is not intended to supply information
alone for it is not primarily concerned with information as an
end. It is not to give advice for it is not preaching. It is
a process aimed at making health a valued asset by individuals
and communities.¹²

OBJECTIVES OF DENTAL HEALTH EDUCATION.

The aims of health education is focussed towards community
health as an asset and as an aspiration of a group. Compliment-
ing it are the objectives of dental health education which narrows
down the value of health to the individual in the level of his

personal dental health and practices. The foregoing objectives
 13
 is an adaptation from Stoll and Catherman.

- A. To help individuals in the community appreciate the importance and value of teeth free from disease and abnormalities in a healthy mouth.
- B. To show the relationship of dental health to general health of individuals and how it relates to the community.
- C. To encourage good dental practices including personal dental and oral cleanliness as basic foundation in dental hygiene.
- D. To motivate people to seek and accept regular periodic dental treatment, including correction of remedial defects, preventive and protective measures.
- E. To gain the support and cooperation of the community to obtain and maintain adequate dental care and the accepted measures for mass dental disease prevention and control.
- F. To provide authentic information concerning diet and nutrition for optimal general health with specific references to dental health.
- G. To provide the community with learning experiences for the purpose of influencing knowledge, attitudes and conduct relating to dental health.

Over and above other aims, dental health education aspires for the individual to live healthfully and enjoy the blessing of

sound and healthy dental apparatus.

3. TEAM CONCEPT AND THE ROLE OF DENTISTS IN HEALTH EDUCATION

A. THE TEAM CONCEPT IN HEALTH EDUCATION:

The health of the public, the first concern of the health profession is not the responsibility of a single discipline alone. The complexity of maintaining acceptable standards of health in the community is borne by a central core of the public health¹⁴ team.

The rationale for the team approach rests on diversity of functions to be performed and the consequent need for combining^{15.16} the skills of several types of specialists. Effective health education requires close team-work among the many categories of health and education personnel.

A characteristic of the public health method is its reliance upon teamwork. This is due partly to the necessity of efficient handling of large groups of people and partly to the fact that many processes which are involved in prevention lend themselves particularly well to teamwork.

Such teamwork implies the planning and organization of health education programmes so that each person accepts responsibility for that of the programme he can do best, and carries out his part in such a manner that it supports the work of all^{17.18} the rest of the personnel.

Each of the major categories of dental public health activity is closely related to, and interactive with, elements of other

public health programmes. Public health dentists contribute, for example, to programmes of medical care administration and health economics, maternal and child health chronic disease, nursing, health education, nutrition, environmental health,
 19
 and construction of health facilities.

With this in view, dental public health efforts (including dental health education) in prevention, education, research and dental care are now conceived as component parts of comprehensive public health programmes. As Hanlon²⁰ says, health education²¹ is everybody's business. Everyone involved in or concerned with health in anyway is a health educator.

The central core of the public health team is the first line of health defense in the battle order. This group is so specialized that it has become a society all its own under idealized condition. The members of the inter-disciplinary corp include the physician, dentist, nurse, health engineers, nutritionists, sanitarian, socio-anthropologists, midwife, social worker, health educationist, etc. Around the core will be the logistic and support troops, headed by the teaching profession, health auxiliary personnel, clergy, community leaders, mass media people, extension workers, public administrators, etc.

The array of specialists working as a body in a public health team is concerned with a patient more complex than an individual, more diverse in ways, thinking and feeling far more immense in dimensions: the community referred to as the body politic.

B. ROLE OF DENTISTS IN HEALTH EDUCATION:

I. Research.

The public health dentist is becoming increasingly active in research which include not only the planned, systematic discovery of new facts, the identification of relations among facts and their demonstration, but also the application of new knowledge in practical settings.

His research interests center primarily about three areas:

- (1) Methods (and their applications) for the prevention, control, and treatment of dental diseases.
- (2) The social science and educational aspects of achieving better dental health for individuals and groups in their community settings.
- (3) Effective administration and evaluation of
22
programs.

Need for Research:

Education must be scientifically sound and built on the current attitudes and understandings of the people to be educated. It must focus on goals which seem to them to be important, and which can be realized within their capacities and resources. All these factors vary with the educational, social, economic, and cultural conditions of the different countries, and thus health education must vary accordingly.

It is only after a thorough study of the people, their

attitudes, interest, beliefs, cultural values, wants, needs, and resources that the most effective health education can
 23
 evolve. The foundation of health progress lies in research and the availability to health services. One of the most essential and popular research activity in health education is the establishment of a sufficiently accurate baseline against
 24
 which to measure progress.

II. Community Leadership.

Active leadership in the community is a supportive role in health education. The dentist has the obligation of providing freely of his skills, knowledge and experience to society in those fields in which his qualifications entitle him to speak with professional competence. The dentist should be a leader in his community especially in all efforts leading to the im-
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 provement of the dental health of the public.

The members of the dental profession have the responsibility of providing a high type of service to their patients and exer-
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 cising leadership in the community in which they resides. That confidence will not be limited to his technical dental services but will extend over a broad scope of day to day community affairs. In particular people will expect advice on community
 27
 proposal for health improvement.

Leadership to be effective in health education implies maintenance of good human relations. The importance of good human relation for any learning situation can hardly be over-

estimated. This involves "acceptance" of other people, no matter who or what they are: respect for personality and a friendly approach based on innate inclination to like and work with people.

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III. Resource Person.

The public health dentist is a resource of information on dental health for his agency and for his community. He in turn must keep well informed on dental and public health matters and must utilize effective concepts of education and communication. He must be accurate, concise, discriminating and clear in his selection, evaluation, interpretation and use of scientific data and information.

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Wisan and Gruebbel in a survey of dental health habits in 2,500 families found that nearly 90 per cent of the respondents rely on the dentist for dental health information. This is a tacit demonstration of the community's public trust and confidence to the dentist which should always be fairly compensated.

An uninformed electorate probably would do little to support fluoridation in a referendum. A person less informed about the seemingly benign symptoms of oral cancer may not seek treatment much less support dental research efforts directed towards the cause and prevention of these disease.

32

IV. Professional Education.

Educational efforts, directed towards the health profession and the public, cut across all other activities. Professional

education is designed to inform practitioners about new developments and to keep them up to date in basic subjects. Activities in professional education encompass a broad range of methods and media in communication, consultive services, formal and informal courses, and demonstration programmes.

Dental public health agencies and programs have participated with educational institutions and voluntary agencies in promoting, conducting and supporting special educational activities (including continuing education) for dentists, dental public health personnel and other health workers.

Public health dentists will be assuming more responsibility in the undergraduate preparation of dentists and dental hygienists, as evidenced by the development of departments of social, community, or preventive dentistry in special schools of dentistry.

Public health dentists also are playing a significant role in the continuing education of the practicing dentist (including the public health dentist himself) and other personnel concerned with dental health. They are leading the way in experimentation in instructional methods which may enhance the effectiveness and efficiency of educational programs.

V. Direct Education.

Direct patient education is considered by most health workers to be the most effective form of patient education. Face-to-face and eye to eye contact give us tremendous advantage over other forms of communication. Because dental practices are geared to

a specific time tempo, however, and because direct patient education represents use of premium practiced time, this approach must be carefully planned and oriented with the patient-treatment programme:

this involves using specific procedures of education at specific times during the treatment schedule. It also involves considering the use of the dentists and auxiliary's time to the best possible advantage in determining which direct education procedures will be used.³⁵

On a nationwide survey among state and territorial dental directors in U.S. the greatest recognized training needs are for themselves and their personnel. Among other things health education ranks high in priority.³⁶ This is taken as a sign of the growing awareness of the dental profession in answer for the growing demand in health education for the public.

III. PUBLIC HEALTH

I. MEANING OF HEALTH

Health is only one facet of life though it is probably the most important one, and its value is discovered when it is already lost.³⁷ Although health is a common need and the effort to attain it represents a common drive it is actually of secondary rather than of primary importance.³⁸ Hanlon goes further to state, that even in the primitive state man is concerned with the achievement of a total or integrated way. Because of its complexity this is

not easy to define.

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Health according to Paul is just part of man's daily vista; it is seldom the point around which everything else revolves. It is one of the many goals outside the basic needs where the individual is interested in, in so far as making possible the achievement of related goals, especially those which are primary

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in nature.

In any attempt to discuss health education the meaning of health and what it stands for becomes a frame of reference. For sometime, the state of human health was ill defined until the World Health Organization made a broad definition and accepted the concept that:

41

"

Health is a state of complete physical, mental, and social well being, and not merely the absence of disease."

Its breadth of vision involves depth, yet this definition as yet is unsatisfactory in a practical sense. Within the rigid precepts few people could be considered really healthy. It embraces a static concept of well being over time which is unlike the dynamic equilibrium in which biological organisms exist.

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Pirrie indicates that the definition can be a mere platitude unless it is understood that it is possible to analyze its components of well being. Williams looks at health as a continuum which is not a thing which we either have or do not have but are varying in degrees.

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Murray suggests that perhaps a useful conception is to think of health and disease, not as mutually exclusive, but as opposites, so related that the more of one which you have, the less of the other that remains, thus as the measure of disease or if ill health increases, so the amount of or well being decreases.

It is preferable to look at health in the context of the continuity as a state of dynamic harmony between the physiological, psychological, social and cultural elements which make up the

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human organisms living in society. Anthropologists have reported that among several pre-literate societies, it is deemed essential to enjoy health, one must have good thoughts to avoid quarrelling

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and aggressive acts.

2. THE PLACE OF PUBLIC HEALTH IN SOCIETY

The simplest yet most comprehensive definition of public health might be the literal one. Young and Striffler states that since public means of or pertaining to the people of a community, state or nation - public health is peoples health. It is concerned with the aggregate health of a group, a community.

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This sweeping definition of public health is not limited to the health of poor folks, or by methods of rendering health services or by the nature of health problems. Charles Edward A. Winslow's definition of public health: "as the art and sciences

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of preventing disease, prolonging life, and promoting physical and mental efficiency through organized community effort is the most widely accepted that has stood the test of time."

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An important element in the concept as commented on by
⁵²
 Dunning is contained in the last words "through organized community efforts" setting the individual as the objective in the perspective of the community. Its breadth includes not only the sufferers from disease in all degrees of severity, from the sub-clinical to the fatal, and persons who have been disabled with disease, but also well people, both resistant and susceptible to disease.

The principle that "the enjoyment of the highest obtainable standard of health is one of the fundamental rights of every human being without distinction of race, religion, political belief, economic or social condition" by the W.H.O. clearly aspires for every man in the community of nations the state of
⁵³
 optimal health.

3. DENTAL PUBLIC HEALTH

A. The Beginning of Dental Public Health:

The development and entry of dentistry to the field of
⁵⁴
 public health is relatively recent. It was not recognized formally as a specialty until then although dentists were active in public health during most of the first half of the twentieth
^{55.56}
 century.

The reasons why dentistry is a late comer in Public Health is that there are few, specific preventive measures available to
⁵⁷
 the dentist, as compared with those that can be used by the physician. This is due in part to the chronicity of the two

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principal oral disease. Dental caries and periodontal disease
does not present a dramatic impact on the public. It is per-
ceived only as an indirect threat to life and far from an inca-
59
pacitating illness.

The combined magnitude of these two disease however, affects
practically the entire community. The progress of the disease
process in the individual makes it insidious and deceptive fos-
60
tering complacency and neglect.

B. Recognition in the Public Health Family.

The turning point in dental public health came with the
acceptance of fluorides and assigned a place in the dental health
picture. The concept cautiously advanced in 1949 that water fluori-
dation is nearly the ideal dental caries preventive measure is now
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backed with worldwide researches supporting the concept. This
constitutes the first breakthrough and major achievement in dental
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public health giving dentistry its rightful place in a public
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health program.

C. Some Guidelines:

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Knutson underscores the present attitude of people and pro-
fessional health workers towards dental health which leaves so
much to be desired. He stressed the importance of dental health
which is usually expressed in terms of such physiological func-
tions of the teeth and oral structure as speech, mastication,
and deglutition.

In our modern culture, however, the functional attributes of teeth often appear secondary in importance to the psychological effect of their contribution to facial contour, esthetics, and appearance and to the social aspects of dining. Knutson states further, that these latter characteristics are concerned with values so personal and intangible that professional health workers tend to underestimate their significance in relation to total health.

4. HEALTH EDUCATION OF THE PUBLIC

A. Role and Status:

A clearer conception is emerging of the role of health education as one of the essential components of both health programmes and of general education. In another breadth, health education has now earned its place as a specialty which provide an indispensable complement to all health activities. It permeates such areas as health promotion, protection, restoration or rehabilitation. But the main aim has continued to be "to help people to achieve health by their own action and efforts."

B. The Beginning

Health education has developed from a number of basic subjects—some practical, some scientific and some philosophical. It is referred to as an offspring of the marriage of medicine with education born into the modern era..... the result of the efforts made on the part of an organized society to help people learn to live healthfully. Health education is seen as a tool which is used

to obtain the kind of well informed public cooperation needed. It has as many facets depending on the context it is seen and the individual perceiving it. As such, it has a wide range of definition and it means different things to different people.

C. Some perspectives in Health Education:

74

Indian Journal of Public Health, New Delhi 1967.

Academically, public health education is a process of introducing a planned change in a community with the idea of improving their health. It is a democratic process and pays due regard to the individuality, dignity and liberty of each individual.

75

R.W.B. Ellis - London, 1966.

Clearly health education is more than a set of health rules to be learned by rote. It must inform as well as instruct. Attitudes and behaviour must be changed as well as knowledge.

76

Akbar Moarefi, Turkey, 1968.

Health education is not primarily concerned with information as an end, it is not to give advice for it is not preaching. It is a process that is aimed at making health a valued asset by individuals and communities.

77

T.V. Tiglao and A.L. Keyes, Manila, 1958.

Health education is basically not telling people what to do about their health. Rather it is a process whereby learning situations are created with and for people. So that they may change favourably.

78

Nyswander sees that health education is the process of change in the behaviour of the human organism itself which is related to achieving personal and community health goals as a result of new experiences.

Health education therefore, is part of the continuous life experience of every individual; the sum total of all those ex-

perience which favourably influence the beliefs and practices concerning health and disease which we acquire during life. It is a dynamic ever changing process of development in which a person is accepting or rejecting new information, new attitudes and new practices concerned with the objectives of healthful living.⁷⁹

In practice "helping people to help themselves" should be almost as important as direct service.⁸⁰ If one concentrates upon prevention of disease and the attainment of positive health habit rather than upon the cure of disease, self-help is much more than half the battle.⁸¹

D. Dental Health Education.

Diseases of the teeth and related structures are among the most prevalent health problems of mankind. Since they are not major contributors to mortality, they are taken for granted or at best given a low priority by health administrators responsible for promoting programs to prevent and control disease in population groups.⁸²

⁸³ Pelton and Wisan stresses the fact that the dental problem is too complex that meeting only immediate need does not solve the problem. If we are to improve the dental health conditions of the community we must understand that oral health practices are carried out within a web of intermingling social and economic relationships involving the maximal utilization of community

resources.

The underlying philosophy of health education should be considered. It is based on the fact that a repetitive action for promotion of health, prevention or cure of disease must come from within the individual or the community concerned through understanding of the process. It is not possible to apply compulsion or law for such repeated acts. Examples are regular brushing of teeth and taking balanced diet.⁸⁴ Winslow aptly described the philosophy when he stated:

"Health is not something which can be imposed by a fiat from on high. Its attainment depends on the interest and willingness of individuals and groups to assume responsibility for the solution of their own problems on a well informed basis. People are more prone to apply acceptable health practices in their daily lives if they have had a part in determining programmes....in partnership with the professional health worker."⁸⁵

5. THE RELATIONSHIP OF THE SOCIAL SCIENCES TO HEALTH.

The man in the Kampong, barrio and Kuta, is beginning to feel the effects of social changes. The person in urban setting beset with more problems should know how to live. Zamora and Lawless⁸⁶ argues that one of the very crucial problems of man is how to live in a world of overwhelming technological complexity and rapid cultural change, the by-products of his daring efforts to conquer a seemingly hostile ecological, social and cosmic environment. It is a transitional world characterized by great

and painful stresses and strains.

Health workers agree generally that we are now in a period where the human factor must be taken into account if public health is to handle its problem successfully. ⁸⁷ Suchman states that the prevention, detection, and treatment of illness call for the full application of existing social science knowledge in such areas as community organization, communication, decision-making and collective behaviour.

An understanding of the social and psychological factors that affect public and individual information, attitudes, and behaviour regarding health programmes or health measures is necessary if these programmes are to be successful. It is axiomatic in public health that water fluoridation is effective unless people accept it.

Dr. Lyle Saunders, American anthropologist writes:

The historical association and the recent emerging convergence of interest between behavioural science and public health derive from two obvious but fundamental, aspects of the nature of health and of public health activity:

- "1. Social and cultural behavior are important factors in the etiology, prevalence, and distribution of many disease. How people live, what they eat, what they believe, what they value, what technology they command are significant determinants of their individual and collective health."
- "2. Public health is a social and cultural activity. Both its practitioners and the human targets of its services are in their various interactions and fulfilling socially defined roles in culturally

determined way and a good deal of their behaviour is motivated, orientated, and constrained by the social and cultural context in which it occurs."⁸⁹

IV. THE SOCIAL ANTHROPOLOGY OF DENTAL HEALTH EDUCATION

THE HYPOTHESIS:

"A program of dental health education can succeed in a developing country."

- if the following factors are taken into consideration and met with:

1. Dental health education as a part of a total health education program will be launched corollary to the dental care programme.
2. Direct service is part of the dental care programme.
3. The dental programme is integrated with a greater health program in turn with a broader community development project.
4. Health education activities are planned based and thoroughly related with the socio-cultural elements of the community.
5. The measure of success is to bring basic oral hygiene to the homes as a nominal criteria.
6. Assuming that all other variables technical, administrative, etc. are satisfied with.

Developing countries depending on their stage of development are beset with problems ranging from literacy, birth rate, food production, internal security, public works employment, housing

and many others. Although health problems ranks high in their order of priority it still remains to be seen whether Dental health receives the attention it deserves.

It is presumed that developing countries cannot undertake extensive and sophisticated dental care schemes neither can it afford failures in its health programmes. It is hoped that this paper can offer some pointers in dental health program planning.

2. THE MATERNAL AND CHILD HEALTH PROGRAM: VEHICLE FOR DENTAL HEALTH EDUCATION.

A. Why MCH?

Like other health projects, dental health education cannot be materially advanced as a "solo project."⁹⁰ In the same manner dental public health programmes its parent component will almost never be organized except as part of a comprehensive public health programme; and since the basic problems in the health field are⁹¹ much the same as those in other areas of health services.

⁹² Suchman observes that public health seems to be most successful with programmes that requires a single marshalling of community support and least successful with those that depend upon continued cooperation of separate individuals. Consider the growing importance of community development programmes launched on a national scale which encompasses the health programmes. Throughout the world the trend unfolds the importance and implications for health education studies within a greater whole, the community development programmes.⁹³

The ideal choice of having health education within a dental care program as component of a greater health endeavour belongs to a maternal and child health program (henceforth shall be referred to simply as MCH). Its place in the program will be mutually beneficial and complementary. In support of this thinking, Hanlon ⁹⁴ states that in order to meet adequately the many problems presented in the field of maternal, infant and child health, it is necessary for the official health agency of a community to carry out a well conceived and interrelated series of activities, each of which looks forward to subsequent periods of life.

Authorities agree that all phases of the MCH program should ^{95.96.97} have both service and education to be meaningful.

MCH has always been a peculiarly appealing public health problem as well as one where teamwork is very effective. This is borne by the principle that as far as a pregnant woman, is concerned special attention given to her brings double health benefit: first to her as an adult member of society and second ⁹⁸ to the product of pregnancy.

Pregnancy is the period of particular physical stress during which time the woman, who ordinarily may have no difficulties must ^{99.100} face the possibilities of unusual risk. The mother and child ¹⁰¹ according to Pearce are two individual human beings each needing care and protection. Society entitles the duo the assurance of normal health and growth.

Maternal care in the wider sense begins much earlier in measures aimed to promote the health and well being of the young people who are potential parents and to help them to develop the right approach to family life and to the place of the family in the community.

The care of expectant mothers and of children is closely interrelated and inseparable part of the total health program of the country. The improvement of one benefits the other and close integration and cooperative action of all individuals and agencies is essential.

B. Where to Begin Health Education in the Mother and Child Dyad.

Rosenau, and Pearce stresses the significance where to start health education activities in the mother-child dyad. It is clear that there is no one place to start the task of building mental and social well being for each individual.

To begin with a new born baby is to neglect the importance of pre-natal factors; to work with parents during pre-natal period makes it apparent that some of the problems which arise are related to the infancy and childhood of the parents; to work with children of pre-school or school age demonstrates the importance of understanding cooperative and sympathetic parents.

Pearce suggests that education for health begins before birth. The care of the mother at an ante-natal clinic lays the foundation for the well being of her baby....Mothers-to-be form a very receptive audience: they are naturally anxious to learn

how to provide an ideal environment for their new babies and also for their families.

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M. Sen, refers to a newborn as nine months old at birth.

During gestation everything that affects the mothers health also affects the child and for long after he is born the child remains directly dependent on his mother for food, care and protection. In considering what can be done to meet the health needs of the child, we must begin with the health needs of the

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mother.

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Ellis sees the early years of childhood as the most formative thus, parents and homes are the most important influences in a child's life.

3. THE ROLE OF THE MOTHER-CHILD DYAD IN THE INTRODUCTION AND ADOPTION OF DENTAL HEALTH PRACTICES.

MOTHER-CHILD DYAD AND THE TRANSMISSION OF CULTURE:

The relationship of the mother-child is a dominant channel in the introduction of health attitudes, values and the development of the individuals health practices in later life. This relationship is not the sole factor in moulding the child's health behaviour. There are myriads of qualifying elements influencing the development.

Health is the result of hereditary factors, environment and the ways of living. The environment are physical, biological, social and economics. Man is constantly acting and reacting with the forces of environment and modifying them to

his advantage.

Heredity determines the broad sequence of the development and the upper limits of possible achievements, but the extent to which each individual achieves his potentialities is largely determined by a multitude of factors in his physical and social environments.¹¹¹

The environment are constantly changing and while it is true that man has gradually gained some mastery over his physical environment and that he chooses the social setting in which he works, lives and plays he must still be capable of meeting and adapting to departures from the familiar.¹¹²

A. The Development of the Child:

To appreciate the relationship of the child with his mother it is customary to view the dyad in term of its components oriented to their social and cultural background.

i. Physical Development:

This is primarily locomotion development among other things involving large muscles, small muscle development closely related to manual skills; and perceptual development which is basic to a child's adaptation to his physical and social environment.^{113.114}

ii. Emotional Development:

This refers to the emergence of feelings and reactions associated with the satisfaction or deprivation of certain needs and their integration into the personality. Motivation (drives or forces activating behaviour) is a closely related subject and is usually considered at the same time.¹¹⁵

iii. Social Development:

This is concerned with the process whereby the child relates to an ever widening circle of people and the condition which govern the quality and extent of these relationships.

iv. Dependent-interdependence of Components:

Authors agree that the components of development do not operate independently, but are highly interdependent and inter-related. Clements suggests that a person's social development depends on his capacity to form and maintain relationships preferably with a wide range of people. The establishment of such relationship involves the capacity to communicate with people and to understand them.

A bright child would be better able to do this than a dull one, while an emotionally mature individual could be expected to sustain these relationships more satisfactorily than could an immature person, similarly, unless social and emotional reach certain minimum standards of adequacy mental development will always fall short of its potential.

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Baber Avers, that the child is not born human, yet it has human potentialities that no other animal possess. The child is born biological organism but his capacity for learning human traits bring him social status. He inherits his original nature, but he acquires his human nature, that rather vague aggregate of traits (including language, a sense of beauty, moral standards, etc.) which we consider essentially human.

Human nature, therefore, comes from the interaction of the organic and social processes. The biological inheritance appears in a social environment, interaction begins and human nature is in the making.

v. Adaptation:

The child may have been thought of as a hapless pawn in a game played by his genetic constitution and his environment. This is not certainly so. Individuals do have a measure of self-determination and are not wholly at the mercy of innate and external forces.

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Clements states that the person is certainly the arena in which nature and nurture interact; but this continuous interaction itself creates a composite of personality patterns, reactions and dispositions by which the person organises and manipulates his environment.

Hence, by entering some situations and avoiding others, by seeing only what he wants to see, by using mental mechanisms to take the "sting" out of disquieting events, by setting up certain goals demanding a particular programme of effort, the person is actively guiding his own destiny. Individual differences operate here, as they are elsewhere, so that while some people tend to be carried along by the prevailing currents, others assert themselves most vigorously against them.

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B. Mother's Role:

i. Biological.

The biological function of parents is immutable, if man is to survive, but the social functions change from age to age with shifting customs. Nevertheless, the core remains the same through the ages: parents are society's representatives, and they are expected to bring the child into conformity with socially approved patterns.

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Baber observes that social expectation is not always achieved, but it remains central to every culture, primitive or advanced and its attainment is encouraged by threats and inducement to parents in multitude of form.

The biological roles played by the mother particularly breast feeding and the continuation of this traditional role even when bottle feeding replaces breast feeding from birth, by and large localizes the earliest and closest ties in the first six months or so with the mother.

ii. Socio-Cultural Channel.

The broad overlap of human generations makes possible the transmission of culture through the family as its main channel, and children continue to make the gradual transition from family to society with many patterns already established, some of them
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for life.

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Pearce refers to the family with the mother in the principal role as the little society in which children learn to get along with others in the world and without this experience a child would be

very lost indeed. A child should be able to cross the bridge between family life and life in the community with reasonable assurance that the same rules of behaviour apply.

The perpetuation of the human race is recognized by society¹²³ as mothers finest contribution. Bowlby comments just as children are absolutely dependent on their parents for sustenance, so in all but the most primitive communities are their parents, especially their mothers dependent on a greater society for economic provision.

If a community values its children it must cherish their parents.

C. Socialization:

Culture is transmitted from one generation to the next through the process of socialization. It is an account of how a new person is added to the group and becomes an adult capable of meeting the traditional expectations of his society for a¹²⁴ person of his sex and age.

Kluckhohn suggested "culturalization" and Herskovits proposing "enculturation" to include not only learning of social roles but also the transmission of beliefs, values, and other¹²⁵ cognitive aspects of culture.

Culture is referred to in this thesis, as the sum total of the complex social heritage of a group which is created and transmitted from one generation to another. As such culture includes non-material as well as material elements. Its content ranging from the moral and religious values of a group to the

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physical objects which man use to survive.

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E.B. Taylor, says it is "That complex whole which includes knowledge, belief, art, morals, law, custom, and any other capabilities and habits acquired by man as a member of society."

As a frame of reference, society is referred to as a group of people bound together in a more or less permanent association who are organized for collective activity and who feel they belong together. A society is made of individuals who are interacting to each other in a shared pattern; of customs, beliefs, values, and traditions. The common pattern to which they are reacting is the culture of the society.

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One writer summed up culture or "shared patterns", as the cement which binds the members of the group into living organism. Whatever is binding society it is still made up of individuals.

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Hanlon rationalizes that there is no such thing as a true individual as some philosophers claim because each of us is many things. First of all we may consider ourselves individuals a composite or compromise of various strengths and weaknesses, interests and prejudices, abilities and failings. Each of us is the product and a part of a series of environment beginning in the womb.

i. Need for Socialization

In society's point of view it is desirable to be able to socialize a child so that he could successfully handle all of the roles he would confront in the future. This would seem a possibility in a relatively static society with little mobility where

one could have foresight about an individual's predictable way through the whole life cycle.

This orderly state of affairs however, usually cannot be achieved; it can only be approximated to varying degrees from society to the next. Society can do no more than lay the groundwork for the necessary learning in later life, when the child will be confronted with the as yet only dimly seen adult roles. ¹³⁰

Man's social nature is presumably moulded through interaction. Since inter-action is between persons as each is perceived by the other, knowledge of the process of person perception is an important and basic key. We form an impression of a person from his interaction with us or with others and our impression in turn condition our interaction with him. ¹³¹

ii. Failures in Socialization.

Socialization maybe ineffective in later years. One major cause is that the demands for behaviour at different stages of the life cycle may conflict. ¹³² Ruth Benedict states that there are many causes. In any given case, the individual himself may be unable to learn the necessary skills.

Again, there maybe agents missing as in the absence of a parent or key institution or agencies. The process can also fail because subgroups with deviant values exist in every society and they do not prepare the child for the performance of the roles expected of him by the larger society at a later date.

Finally the specific socializing agent such as a parent to whom socialization is entrusted by society, maybe inadequate to

carry out the task because he himself is not interested or because he is ignorant or emotionally disturbed.

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Bowlby suggests that a state of affairs in which a child does not have rich, rewarding relationship with the mother in early years is termed "maternal deprivation". This is a general term covering a number of different situations. Thus, a child is deprived even though living at home if his mother (or permanent mother substitute) is unable to give him the loving care for small children. Again, a child is deprived if for any reason he is removed from his mother's care.

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Brody reinforces this view with her study suggesting that gentling affects human infants as well as animals i.e. extra-holding, rocking, and cuddling produces more placid and more contented babies, compared with those stimulated for essential care taking.

There are many ways besides deprivation arising from separation or outright rejection in which parent-child relationship may become unhealthy - the commonest are:

- a) Unconsciously rejecting attitude underlying a loving one;
- b) An excessive demand for love and reassurance on the part of the mother;
- c) A mother unconsciously getting satisfaction from a child's behaviour whilst she thinks she is blaming.

The most damaging effects of deprivation is the difficulty

of deprived children to become successful parents. Such parents is least capable of creating stable relationship, his aggressions makes him excessively intolerant to his own faults in other people and therefore a menace to the relationship with his children.¹³⁶

iii. Social Development.

It is often quoted that "no man ever looks at the world with pristine eyes."¹³⁷ From the moment of his birth an individual begins to acquire knowledge and experience that colors his views and influence his interaction with people. The way in which one person acts are interpreted by another will determine the course of their future interaction, that is whether or not mutual dependence and mutual influence develop.¹³⁸

The social development of a child refers to the capacity of the individual to make and hold contact and relationships with an ever widening circle of people as he grows older. The first relationships are with the mother or mother substitute; later with the father and siblings and still later with other adults and peers. The kind of relationships the child experiences with the mother can have a significant effect upon subsequent relationships.

This is often expressed as a series of concentric circles (see figure 1). Perception plays a significant part in these areas. Perception is the process by which we constantly make selections from the mass stimuli which we receive through the senses. What we select is largely determined by past experiences but these can be influenced by the immediate needs.

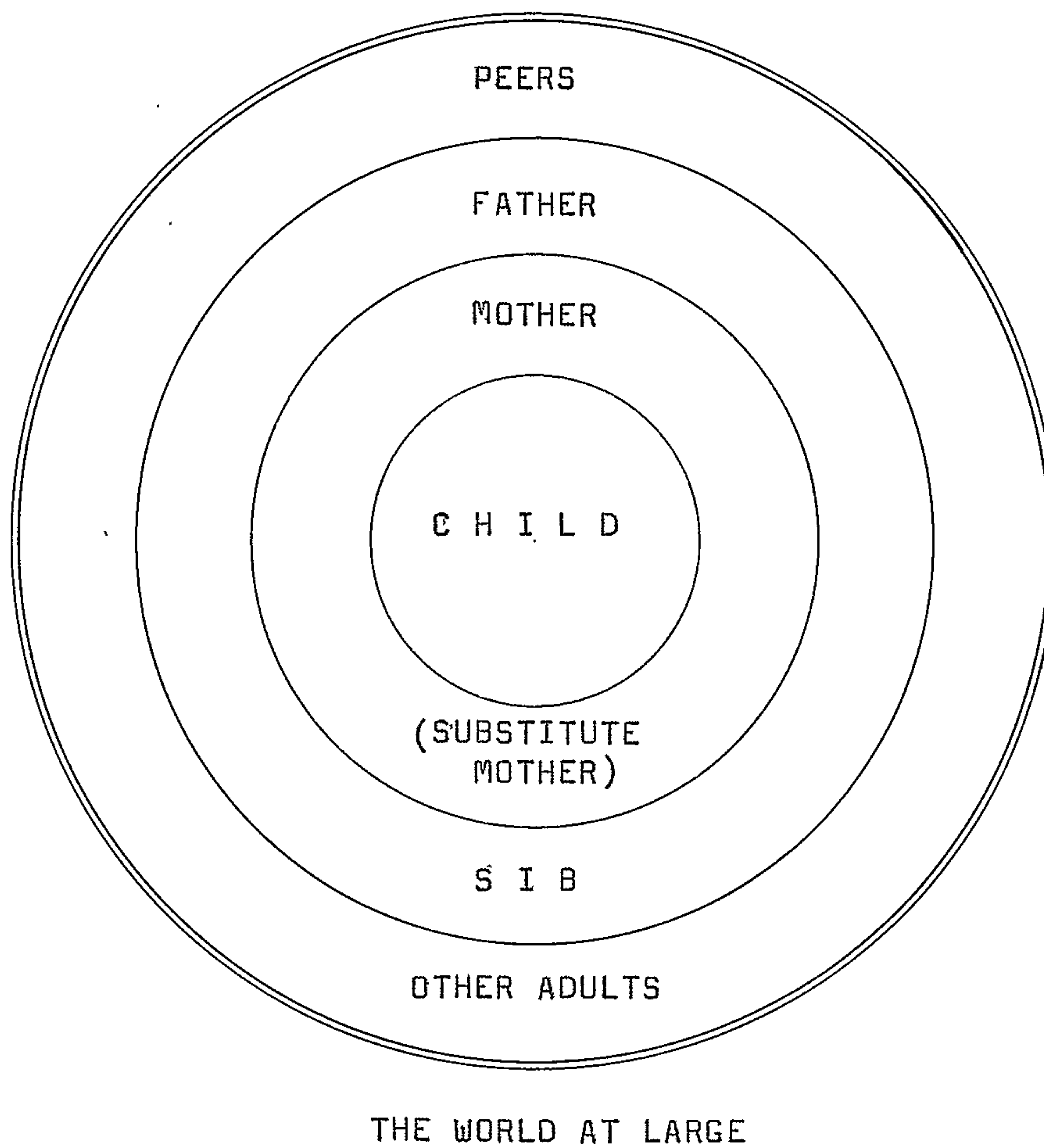


Figure 1. The Social Development of the Child Showing relative Position and the proximity of relationships with members of the Family.

(Clemants and McCloskey in Child Health, The Origins and Promotion).

Perception plays an important role in the child's relationship with people. From the child's point of view situations are not necessarily as they are. He may perceive them differently. He may decide that his mother is treating him unfairly compared with other siblings. This is the situation as he perceives it.

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Evelyn Pearce looks at the family as a closely knit association where the education of children begins and progresses. The parents are in authority; they function as co-equal heads of the family. Nothing cements unity and increases happiness in the marriage relationship more than the united responsibility for rearing and educating children.

Pearce asserts that the importance of the family as the biological and social unit of society cannot be overestimated. The majority of homes are never broken unless by death, and it is on this vast number of stable homes that the solid structure of society is built.

No matter in what circumstance an individual person is seen, he must always be considered with his home as a background and this is of paramount importance when some breakdown in social situation or in the health and welfare of a person is under consideration.

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Parental example and instruction are of dominating importance. Parents are first on the scene; their influence is for sometime

undiluted; they control the rewards most vital to physical and emotional well being and security, they are loving and loved; contact with them is continuous and intimate; and then can demonstrate and correct as well as instruct.¹⁴²

Children acquire vocabulary from the interaction with the mother. Brothers and sisters (sib) learn to love, respect and help one another; the older ones assume responsibility towards the younger and weaker members.¹⁴³

The projection of mental health and well being in later life of an individual so important in the formation of attitudes is established in his formative years. Bowlby¹⁴⁴ expresses that it is believed to be essential for mental health is that an infant and young child should experience a warm, intimate, continuous relationship with his mother (or mother surrogate) in which both finds satisfaction and enjoyment.

It is this complex, rich and rewarding relationship with the mother in early years, varied in countless ways by relations with the father and with the brothers and sisters (sibs) that child psychiatrists and many others now believe to underlie the development of character and of mental health.

Worthy of note, is the family's function as an active agent in providing an atmosphere in which health can flourish and as an agent in caring for the individual in time of illness.

Equally important, is the fact that the family is the

matrix within which many basic ideas and attitudes of the young are formed, and that it is genuinely effective in maintaining such idea and attitudes throughout the adult years.¹⁴⁵

This thesis while focusing on the mother-child relation will look into the role of the father in the upbringing of the child.

The father has been overlooked for sometime as an important influence. He is not only the economic provider but should also give the mother maximum of emotional support.^{146.147.148} The mother after delivered of her baby may pass through a recognizable stage of depression whereby the father should be prepared to support the wife in her emotional problem.

In the second half of the first year when the baby is making firm contacts with people other than his mother, the fathers role increases in importance. At this time the mother may have difficulties in relinquishing the close relationship she established in the first six months of the child's life. The father should recognize this as a possible problem and be prepared to help his wife.¹⁴⁹

At best, mother and father works better as a team in child rearing.¹⁵⁰ Bowlby states that the child relationship to his mother is by far his most important relations during these years. It is she who feeds and cleanse him, keeps him warm, comforts him. It is to his mother that he turns when in distress.

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In the young child's eyes father plays second fiddle and his value increase only as the child becomes more able to stand alone. Nevertheless, as the illegitimate child knows, fathers have there uses even in infancy. Fathers maintain that harmonious and contented mood in the mothers atmosphere which her in-

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fant thrives.

The years preceding school age of a child is seen as the period when the stability of the emotional pattern is laid.

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Pearce stresses that parents have strong influence during this early years. Their harmony and ability to share his interests to provide a happy relaxed atmosphere, yet maintain steady, Moderate, reasoned discipline, provide the secure background which is of untold value.

Children are accomplished mimics in many learning situations in personal cleanliness habit formation. However, ineffectual their tooth brushing efforts at an early age may appear it is by practice that they will become competent, and at the same time the idea of a toothbrushing routine will become established.

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"The family where the child's personality is largely formed is definitely the most important field of education for him. The child learn by examples, instruction, demonstration and explanation. No one can adequately replace good parents as educators for life. Young children are most responsive. They learn quickly and observe detail,

have good memories and generally proud to display
and impart their knowledge to others; in this way
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they can become ambassadors of health."

E. Peer Groups in the Socialization of the Child:

The first peer group for many children consists of their
siblings. The sex of these siblings is important to the child's
social development since older sibs may have much influence over
him, both directly, through rewarding and punishing his behaviour
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and more indirectly through providing a model.

Direct observation done by H. Faigin in a nursery in the
Kibbutzim of Israel indicate that the peer group is important
in developing socially desirable habits of eating, toilet, sex
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independence and repression.

Relations between children in family are like relationships
in the adult world. Children receive from each other experience
in living together. The inclusiveness of the association is im-
portant. Siblings work together, play together for longer periods
of time than is the case with any other relationship. The range
of contact is wide where they share playthings, clothes, bath-
room, etc. There is stark frankness of siblings relationship.
Siblings come to know each other extremely well. Siblings act as
substitute parents. Living with other children help develop
appreciation for the rights of others. Siblings educate each
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other which is supportive in learning situation.

4. COMMUNITY AND CULTURE.

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A knowledge of the community and its people advises Rosen is just as important for successful public health work as is a knowledge of epidemiology or medicine.....the first principle in community organization is to start with people as they are and with the community as it is.

Health workers planning to help a community must learn to think like the people of that community. Before asking a group of people to assume new health habits, it is wise to ascertain the existing habits, how these habits are linked to one another, what function they perform, and what they mean to those who practise them. ¹⁶⁰ Comprehension of a peoples culture is an essential prerequisite to any program involving the transmission ¹⁶¹ of cultural ideas, technique, or other modes of behaviour.

Individuals are members of families, and beyond that members of varying members and types of social groups with shared ¹⁶² ¹⁶³ and common needs and interests. Hanlon writes that complexes of interrelated families, the guild, the village, the clan eventually agglutinating to form various types of cultural and national entities.

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Margaret Read suggests that the health worker trained and orientated in urban surroundings needs reorientation in two directions in order to grasp the significance of the family and community background to the health of the rural people.

1. Kin Groups and Its Relevance to Health.

The concept of a family is usually limited to the small circle of immediate relatives belonging to the nuclear family is characteristic of most new and many old urban settlement. Hence, the term father, mother, brother, sister, have to him restricted connotations and express limited kinship relationship rather a complex of mutual obligations and services. The wider group of kin involved in taking care of a sick person, includes classificatory fathers, mothers, brothers, grandparents, and so on, which constitutes a social group in a rural community which escapes the customary definition of a family.

2. Viewing the Village as a Whole.

Understanding the peoples attitude to their life in their village setting as a whole is an important orientation. Oftentimes health programmes divide village into segments, such as agriculture, food, habits, sanitation, child health, etc. Village people regard their life and activities in a different way. The Anthropologists 'holistic' approach to a community makes use of the concepts of the integration of social relationships and cultural ways of living. This bears directly on the response of rural people to public health programmes and community welfare programmes.

In what maybe seen sometimes as the very simple societies such as hunters and gatherers, in isolated environments like tropical forests or the barren wastes, kinship may be virtually the only principle on which groups exist and regulates the life of the people. Individuals who have kinship ties through descent are linked with official relatives through marriage, and they have other relationships created by common residence in a compound, a hamlet, a village or a neighborhood. They are bound by mutual economic interest, including ownership of land or property, and by the pursuit of similar occupation; by religious affiliation and participation in ceremonies and ritual; by political loyalties and identification with political parties. This are only a few of the major bonds uniting individuals in groups and distinguishing from another.

An analysis of kinship groups and intervillage interaction would show the patterns of authority in the village. A health worker is not just dealing with small individual independent families seen in urban areas or in a foreign culture. He is dealing with a series of integrated groups, whose roles include legal responsibility for children; disposal of property, including cattle, to find cash to pay a 'deviner' to diagnose sickness to pay medicines at the clinic; the care of old people providing them with food and clothes; consultation on what kind of help to summon in case of illness or accident; attending to births and so on.

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A health worker would find that there is a traditional pattern of authority for taking decisions on every sort of problem. Take for instance the village chief in a Malay Kampong. He is regarded as the "face" of the village-- the facade it carries to confront the outside. In a sense he is a figure-head, but it would be unthinkable to treat him as such. It would be considered very rude to march into a Kampong to do a survey, or to administer to the sick, or to talk to any of the villagers, without first stating one's business to the village chief. He will be most gracious,¹⁶⁶ invite one to his village, offer his support.

Kinship in a Tongan village is an effective news carrier. News spreads through kinship channels and every member is in close touch with about fifty (50) relatives and in less intimate touch with one hundred (100).¹⁶⁷ Among whom his or her fathers, sisters, has the greatest authority and the highest rank and is consulted on all matters relating to health.

Villagers expect local leaders to evaluate any proposed change on their behalf. The leaders on their side do not introduce any change unless they know that the people really want it do not require too much persuasion to adopt it and approve of it when they see it working.¹⁶⁸

The society is faced with the task of socialising its children into the basic culture and to varying degrees of

providing further socialization of these persons as they move into different stages in the life cycle. In the simplest term, one can say that through socialization the individual acquires the culture of his group or groups. This includes two main division of culture:

1. The traditional position or statuses in the society; and
2. The role behaviour associated with them.

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Margaret Read emphasizes that the socialization that an individual receives in childhood cannot be fully adequate preparation for the tasks demanded of him in later years. As an individual matures, he moves through a sequence of statuses corresponding to different stages in the life cycle. In addition, his interpersonal environment may change because of geographic social mobility, with consequent demands for new kinds of behaviour. Even though some of the expectations of society are relatively stable through the life cycle, many others change from one position to the next.

5. OTHER FACTORS IN THE TRANSMISSION OF CULTURE.

- A. Religion
- B. Community Organizations
- C. Economy
- D. Political Entities
- E. Mass Communication and Literacy

The role of the mother-child relationship is now seen as the principal pathway in the passage of culture from the outside world; the community; thence to the family and finally the child. Beyond

the close knit and intimate interaction of the family, are segments of a social system which differ in their respective activities, interests and values. Each often have different degrees of power, privilege, and prestige but which in any case permeates through all forms of social life. Factors such as religion, economy, political institutions mass communication, community organizations, community leaders, have certain influence in the growing child's acquisition of culture.

The child may not experience directly the influx of cultural values and norms of the society, in his earlier years but more often such elements filter through the family, notably through the mother in the form of behaviour patterns and to lesser degree the father, the siblings and members of the extended family. (See figure 2.)

Man's behaviour patterns, are not the result of instinctive patterns (like animals), but are composed of the social habits that each new individual begins to acquire soon after birth from other members of his group. In this respect all culture is learned. ¹⁷⁰ Man alone is capable of passing an acquired behaviour patterns to his offspring.

A. Religion.

A basic analysis of religious tenets is not essential, but some parts of the religious philosophy of the people should be known for instance beliefs which may impinge upon or directly conflict with proposed programs. The attitude towards death

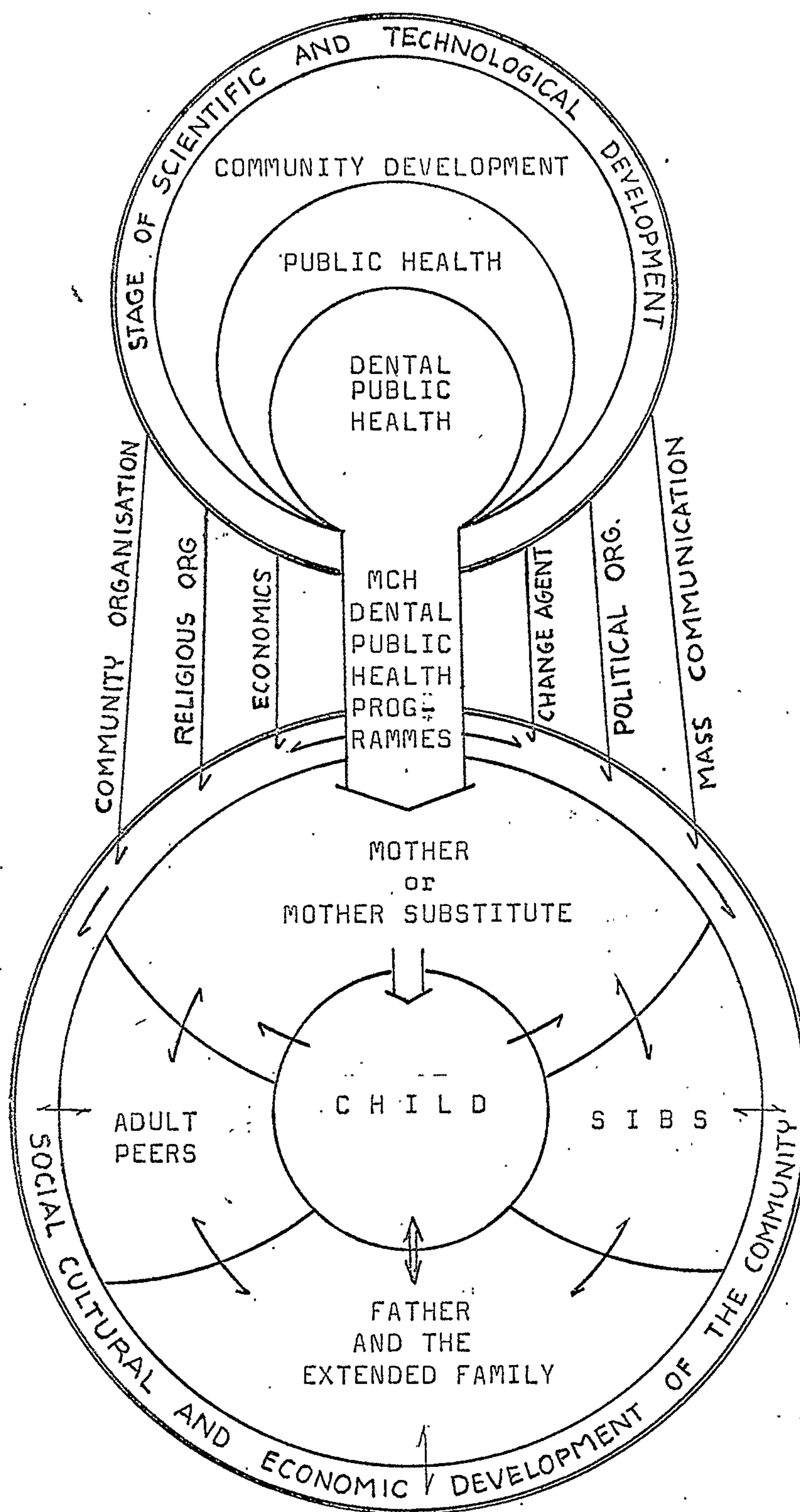


Figure 2. Model for the Introduction of Dental Health Education to the Developing Child.

for example, at any age considered a welcome relief from a world of suffering or looks at illness as a penance for misbehaviour and sin. Food taboos based on religious sanction
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should be taken into consideration.

The activities of religious institutions are manifold, their greatest influence lies in their ability to mould the
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ideals of their adherents. Hunt says "if faith in God, human brotherhood, righteous living and unselfish concern for others are effectively taught by churches, these qualities may form the basis for a healthy national life."

Religious teaching emphasizes virtuous living. This teaching would tend to produce virtue in those educated under religious auspices. At one time the cleanliness was practised as next to godliness for religious purposes than for hygienic reasons.

The holy scriptures of the Moslem faith speaks of cleanliness
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and ablution as a virtue. Holy men, Keramat Hidup in Malaysia treat the sick. In Singapore the Bomoh practices his healing art which is claimed to have the blessings of the Koran, invoking
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Surah (Chapter) 37 for serious illness.

In contrast to the beliefs with a magical and superstitious background, the great world religions have all made contributions to health education (Health Education Journal, 1959). The Jewish and Moslem faiths have always enjoined personal and community.



hygiene on their adherents as a religious duty. The same is true of Buddhism and Hinduism, where well-defined codes of behaviour are laid down. The christian religion is remarkable for its anticipation of many of the ideas on mental health and human relations taught today.

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Although health rules are a part of many ancient religious and social systems of the practices they prescribed some appear to conflict with and some to favour ideas about health based on scientific findings. In either case, such practices and beliefs are strongly felt and may be starting-points for health education.

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B. Community Organizations.

Introduction of health measures into less developed areas to change community health practices must take into account existing community organization and local customs and value, and should involve local authority in the decision-making process. There are overwhelming evidence to support the proportion that the successful innovations involved community organizations.

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Koos advise that community organization for health is in no sense an activity divorced from other forms of activity for community welfare...All community organizations is interwoven in a common effort. Health, says modern research, is not to be found apart from a general welfare of the individual and the community. It consists not only of an absence of disease but

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also of a sense of general well being, of adjustment to all the forces that make up the intricacies of the society in which we live.

Community organization for health cannot be carried on dissociated from the social milieu in which people live for whom it is designed, and because community organizations cannot ignore the strength of the factors which create destructive values regarding health and which place those values, high or low in the whole hierarchy of values that are part of community
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life.

The active participation of the people is therefore an essential factor in attaining success in health efforts of the community. Without their sustained support and cooperation no health program designed for them can even be successful. There have been noteworthy developments in organized efforts for health work by such voluntary bodies as citizen's committees, Red Cross, Village league, or other associations. Community councils or committees of an advisory nature developed by local health authorities have proved to be effective channels for collabo-
180
ration in many aspects of local health services.

Participation in such committees by leading representatives of the national groups in the community had provided a two way flow of information in health needs and in health programs between the people and the service.

T.V. Tiglao reports on the health activity of one barrio in a Philippine municipality where the Mayor, Health Officer, Councillors, the School Superintendent and the Social Welfare Administrator outlined the government program to the people as they heard also of their views. Citizens health committees and welfare committees were formed in answer to their interests. These committees have been active in organizing the construction and repair of drilled wells, repair of roads, spread information to the people regarding health services available. One committee built a health centres, the newly formed parent-teachers associations had worked for the school luncheon to be placed under school management.

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On the other hand Maurice Freedman in his study in Indonesia describes the difficulty of working with a group without hierarchical organization. He observed the characteristics of Kampong Utan as socially formless. It has no established indigenous hierarchy and no organizations appearing on the surfaces of life which could be of use to health workers. However, Freedman expressed his optimism when one exerts more efforts in organizing the Kampong geared for purposes of community development.

C. Economy.

In developing countries, the success of public health program is to a very considerable extent dependent on corresponding advances and modifications in a number of other aspects

of the culture. These embrace technological devices, systems of social and political organization, attitudes and values. Bodily hygiene for example, is more than a question of education and persuasion. It implies the presence of pure water in reasonable quantity. But a modern water distribution system requires a maintenance organization, tools and replacement parts, power for pumps, and socio-political structure to administer the system, collect bills and provide personnel.

Despite the fact that dental diseases are the most common of all kinds of illness, and one that causes intense pain, misery, inconvenience and economic loss. It can also though less assured open the way to other kinds of illness, the most important consideration still is the cost of buying dental services.
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Cases of failure to build privies because of their high cost indicated the importance of this aspect of the culture. Inability to pay for medicine is one reason why many persons fail to avail themselves of treatment at the health centre. The possibility of achieving a balanced diet is also restricted by inability to pay. Inadequate housing is a great problem in many parts of developing countries.

Since in the final analysis the success of public health programs rests upon major changes in the habits of people with respect to diet, housing, clothing, agriculture, and the like

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knowledge of the economic potential of an area is important.

D. Political Entities.

Political institutions on behalf of the community exercise authority to rule or to decide or to negotiate. Simple societies have their tribal chieftain who has power to decide issues or to lead in the making of decisions; there maybe a council; there maybe groups to police the people.

The modern and complex society rely upon political institutions to operate their organizations. The making, enforcing, and interpreting of law is the varied business of thousands of individuals and hundreds of bodies: from legislatures, courts, and executives to the citizens who vote or obey orders, bring law suits or defend them, pay taxes, and discuss public issues with their neighbors or write a letter to some newspaper. These political institutions keep peoples behaviour more or less within the rules.

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One unique example is the Malay Kampong which is a social unit, a religious unit at the same time an administrative unit. As such it supports the local mosques and religious teacher linked to the governmental structure though the Kampong headman the KETUA KAMPONG or DATO AMPAT. It has its own body of customs, value, beliefs and status differentiation, subscribe to a common body of Islamic customary law (adat) apart from the strictly religious rules, which govern most of their important social

relationships. Communal effort is a conspicuous and important part of Kampong life. Such activities as putting up and improving the schools, roads, dams and drainage channels. The Kampong is the center for the mobilization of local labor for the performance of local projects.¹⁸⁶

Political institutions responsible for the passage of a law or the making of an administrative decision when channeled to promulgate laws affecting the promotion or protection of health is directly involved in influencing the health status of the societal entity concerned.

E. Mass Communication and Literacy.

The significance of the degree of literacy and level of education is of paramount importance, because the success of organized efforts to improve various aspects of village life depends considerably upon the capacity of the people to understand and apply new ideas and practices that are being introduced.

The level of education is important in determining what the patient expects of treatment. The educated individual is better able to view realistically the cause and outcomes of a given treatment. Perception results from the communication given by formal education.¹⁸⁷

Literacy and mass media are so interrelated that the educated individual is considerably more exposed to the radio, newspaper and magazines that is, the formal media of communi-

cation. Such persons turn out to be effective opinion leaders and take part in the "two step flow of communication." It involves the flow of ideas from Radio, T.V. and print to the opinion leaders and from them to the less active section of the population.
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Mass communication functions far more frequently as an agent of reinforcement than as an agent of change. In all groups and in all communities, we find certain individuals who look, listen and pass on information and ideas to other members of the group. These individuals occupy chief "gate-keeper" positions and they are the people whose eyes and ears
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act as censors for the rest of the community.

6. STATEMENT: IN HUMAN SOCIETY CULTURE IS PASSED ON FROM MOTHER TO CHILD AMONG OTHER CHANNELS.
7. DENTAL HEALTH PRACTICES ARE ELEMENTS OF CULTURE: COMPONENTS OF THE INSTITUTION OF PUBLIC HEALTH IN MODERN SOCIETY.

Man evolved in the company of his countless problems. Out of his problems he learned to shift and adjust for comfort, convenience and provide for his security. Exposed to the elements and the uncertainty of obtaining food and shelter, the health of early man has suffered and nagged him in his pursuit for survival. His life expectancy allowed him a brief span in early manhood.

Human diseases pre-date even the appearance of primates. Paleopathologists relying mainly on the studies of human skeletal remains unearthed in archeology found evidence of bony

destruction around tooth roots indicative of periodontal disease. Dental caries is unmistakably present in the neanderthal leaving
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no doubt that dental diseases is as old as mankind.

From the primates to modern man people have continuously searched for and evolved various solutions to the universal problem of health. Archeology in Egypt uncovered skeletons that ancient Egyptians practised skull triphination filled teeth with
191
gold and know something about prosthesis. Teeth discovered in the Philippines dated during prehistoric times were filled and
192
pegged with gold.

Evidences of health education activities have been found in the very earliest civilization. No less than the laws of Moses attest to this. For example, eating the flesh of unclean animals was forbidden. Disease at this early period was taken as an expression of the wrath of the evil spirits and cleanliness was practiced as next to Godliness more for religious belief than
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for hygienic reasons.

All people are born to some sort of culture. Some of these maybe simple, Crude and primitive while others maybe complex and highly developed. Whether single or complex, all cultures develop some form of techniques, religious beliefs, social sys-
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tems and other traits which maybe peculiar to only that culture.

Thus a member of primitive peoples cannot be said that they do not have certain health practices peculiar to their stage of

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development. Kennedy reports among some cultural minority groups in Indonesia as in Engano. The tribesmen file the front teeth to points down in an even line or grind a concave groove on its outer surface. Among the Toradja of Celebes, the teeth maybe simply broken off.

In the southern region of the Philippines, some Muslim groups sport a kind of gold shell crowns carved with designs in their front teeth as a status symbol of wealth. In several areas in Java itinerant dental mechanics usually Chinese artisans place staple crowns of gold and copper in teeth exposed to view as ornaments. The practice of teeth mutilations in some parts of Indonesia is said to be part of initiation rights on reaching the age of puberty. However, the practice is discouraged and believed falling out of favour.

The negrito and some Philippine tribe sharpen and stain

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their teeth black. Krieger observe similar practices of mutilation of teeth by chipping and dyeing with iron salts and tan back and the use of areca nut and betel leaf to render the teeth red. Defiling and teeth dyeing in Java is considered as cosmetic aid but in the Island of Bali the custom is related to religious beliefs and practices.

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The peoples of Southeast Asia particularly the Philippines, Indonesia, and Malaysia comes from the same Malay ancestry but have wide variations regarding dental health practices. However,

the less literate group still share the belief that a minute hardheaded worm is eating the tooth structure, producing decay.

The concept of health and disease in Kampong Malays include some complex beliefs in worms as causative agents of disease to wit a few: CHACHING KIRAWIT believed to cause night blindness; CHACHING SUSU comes from milk and cause diarrhoea in children; CHACHING ANGIN literally coming from the wind attack the eyes of children. Human beings are born with CHACHING SAMA JADI which gives no specific cause of illness. CHACHING REMIT in-
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fest the lungs and causing shortness of breath.

Malay concept of disease, of treatment, of life and death are as varied as their culture. Freedman observe a woman after childbirth do not lie flat but set propped up by the whole time even at night. It is said that this will prevent KOTORAN, dirty matter rising from the womb to her head to affect her eyes, loss of
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hair and teeth.

The development of dental practices in the Southeast Asian region have followed very closely the pattern in Europe as elsewhere. Within a community some would be sick, some suffering from pain of dental origin and the rest enjoying good health. At a time when there are no trained dentists expediency have drawn from society the daring, the enterprising, and the strong to relieve the sufferers of pain. Consider this article. Until the middle of the last century, and indeed to some extent after

that time, most dental operations were performed by itinerant tooth drawers, barbers, or blacksmiths - 'Ignorant unskillit and unlearnit men'..... It is recorded in the year 1400, Mathew Flint a tooth drawer is engaged by the king to pull teeth of
201
the indigents.

Prior to the discovery of the Philippines for the west by
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Magellan in 1521 A.D. it is safe to assume Erana reports, that dentistry was practiced by medicine men, the herbolarios as identified by the Spanish, by tribal chieftains, and later by barbers. Philippine dentistry evolved through the phases of preceptorial and formal training. In 1854 Petri a French dentist established practice in Manila and trained a Filipino who passed on the skill and knowledge to his children and relatives and in turn to others. In 1898 so called CIRUJANO MINISTRANTES working as helpers to physicians doubled as tooth pullers. Physicians also practiced dentistry. Later, a two year course for Cirujano Ministrantes was opened by Sto. Tomas University (older than Harvard). This group allowed to practice in areas where there are no physicians.

Malaya observes a similar line of development in dental health practices in its early stages. Abdul Karim writes of a single private practitioner as the innovator in dental practice in 1899 in Penang. Before this indigenous medicine vendors and the traditional Bomoh (medicine man) have been practicing

dentistry with artisans skilled in fitting gold crowns taking part. As late as 1948 practitioners of dentistry without formal training in dental schools were entered in the registry of dental practitioners under separate division with the qualified
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dentists.

In one cultural minority group in the Philippines (1955) this writer has come across tribal dental practitioners extracting teeth with the use of narrow bladed chisel sans anesthesia, but sometimes the patient is braced with wine. It is also observed in barrio households among the indigenous population that tooth brushes are in evidence though very rarely would each member have a toothbrush. Many still use guava twigs (frayed at ends to simulate bristles) and betel nut husks occasionally.

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Hanlon has observed a cross cultural situation in the practice of toothbrushing in some communities in Java. Apparently at sometime in the recent past a very effective selling job on the merits of the toothbrushing of the teeth must have been carried out. Imported toothpaste, however, is well beyond the economic capacity of many of the people. Nevertheless it is extremely common to see individuals with toothbrushes in their pockets stopping to brush their teeth at the edges of the many canals which run through the streets. Since these are actually open sewers used for bathing, laundering and for brushing the

teeth - one could not help wondering if the dental hygienic gains might not better be forfeited in the interests of other sanitary considerations."

Cosmopolitan areas and big c ountry towns would show different dental health practices of the people. City and town dwellers would obviously have adopted better and acceptable dental health habits. However, there would be about seventy to seventy five per cent of the population more living in rural areas. This would be the target group that will need health education more than any other.

Some culture ingredient mentioned above relating to dentistry range from crudity to modernity. The content of culture may vary tremendously from one group to another, but no group can exist without an intricate cultural web to hold it together. Culture is a group product and is never produced in any society by the work of a single individual. Man is born into a cultural group whose cultural pattern have been shaped over a thousand generations. Many of the patterns change or die away with time, but culture grows through accumulation and a strong pattern of continuity runs from one generation to the next.

If culture is the cement binding the society together, the behaviour pattern of the group are the basic ingredients of this cement. Those type of behaviour that are organized and repetitive are known to the sociologists as the "folkways" of

a society. These are the group way of doing things and commonly are called customs. An infinite variety of customs exist and
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that this customs have a strong compulsive nature.

Folkways involve the many we eat (brush and clean our teeth) how we dress and a myriad of behaviour patterns that we follow because they have been impressed upon us from the time we are born. They have been called the habits of the group and have developed through the many centuries of a group history to meet its daily problem. Changes and addition gradually are made, for folkways adapt themselves to the conditions of life of each generation. Many of the folkways that govern man today will be quite different from those that will govern the behaviour of his
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children.

Ruth Benedict in her book "Patterns of Culture" sums up the nature of culture thus:

"The life history of the individual is first and foremost an accomodation to the patterns and standards traditionally handed down in his community. From the moment of his birth the customs into which he is born shape his experience and behaviour. By the time he can talk, he is the little creature of his culture, and by the time he is grown and able to take part in its activities its habits are his habits, its beliefs, his beliefs, its impossibilities his impossibilities. Every child that is born into his group will share them with him and no child born into one on the opposite side of the globe can ever achieve the over thousand part." 208

8. THE INTRODUCTION OF DENTAL HEALTH PRACTICES IS MOST FEASIBLE IF DONE THROUGH THE MOTHER AND CHILD DYAD.

There is no substitute for the mother and child relationship as an institution of learning for an individual. Surrogate

mothers (substitute), and institutions for upbringing children does not approximate the advantages of the normal and adequate mother and child relationship. Behaviour patterns of man are composed of the social habits that each new born member of society acquire from the others in his group soon after birth. In this respect components of culture: attitudes, beliefs, habits, etc. are learned, as man alone is capable of passing to his progenies acquired patterns of behaviour.

The child at most of his waking hours is in close dependence with his immediate environments and his mother. More effective learning takes place in learning one's culture through socialization. The child who takes a step closer to civilization for example by brushing his teeth regularly is rewarded with love and affection by his parents and reenforced by the members of his family, peers and playmates.

V. DETERMINANTS OF HEALTH BEHAVIOUR

1. Psychological
2. Social
3. Cultural

PSYCHOLOGICAL DETERMINANTS.

The determinants of health is securely anchored in the fundamental nature of man. The current position as Hartley ²⁰⁹ views the psychological nature shown in the basic processes of motivation, perception and learning. All higher mental processes such as thinking, imagining, inventing involve these processes in

various combination as the organism interacts with the environment. The basic processes are interdependent in man. Motives involves learning and perception; learning involves motivation and perception and perceiving involves learning and our motives.

The "cause and effect" line of thinking as an approach looks to the analysis of motivation in mans needs to provide basis for understanding behaviour.

Man behaves in a manner that satisfies his needs. Still many others orient from an analysis of perception: man behaves in accordance with the way in which he sees the world; the last school of thought is oriented from the study of learning; mans behaviour is a function of what he has learned apart from the changes induced by physical growth or trauma. The foregoing analysis is an over simplification and leaves us with a wide differences in the approaches . Yet it is a frame of reference unifying the perspectives. We must, Hartley urges us to perceive the diversity that is to be found and learn to deal with that diversity to satisfy our needs.

Attitudes and beliefs are group products and become relatively standardized for its members. An individual member takes on the attitudes and beliefs common to his group. In our society we are members of many groups. Most of our groups have congruent values, but not in all cases. If people do not function as members of these several groups at the same time we dont

face their inconsistencies. We avoid conflicting interests and the situation does not become ambiguous. Behaviour, values, attitudes, and beliefs requires that a subject orient towards the groups in which the same were standardized and relate the individuals psychology to his group memberships.

The contemporary "role" concept is used in describing social behaviour as man plays many roles. He is not the same when he is attending a convention, as he is in his job. At home, he is the father who commands respect as head of the family and in the office he may be just another insignificant cog in the office machinery. Behaviour is thus assessed with in the closer relation of mans role and his behaviour. His role in turn is influenced under different social contexts.

Reference Group Concept. The phenomenon of modification of the subject by different reference groups with respect to personality has been studied by R. Stark, H.A. Murray, and W.W. Charters. A person perceives differently under various situation depending which frame of reference he is referred to hence accordingly he will base his actions. A health worker therefore should be in a position to assess an individual's profile of attitudes, characteristics and skills, as they may be represented in relation to his various reference groups.

Consider the individual unless we know a good deal about the way his attitudes may shift as a function of whether we are

dealing with him in his work or his family context. The most strategic ways of dealing with him is still not established. If the attitudes differ markedly, and often they do, then we would want to know in what context the behaviour is to be elicited. If the health behaviour is customarily expressed in the family milieu, health education in the work or recreation, reference groups may not transfer to the critical situation.

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Hartley underscores the common observation that the essential character of human behaviour involves variability not only between individuals, but also in observing the behaviour of the same individual in different contexts at different times. It is suggested that the concept of reference groups is helpful in providing a basis for organizing and noting some of the variabilities for identifying the real nature of some of the problems that confront us in understanding behaviour and in trying to influence it.

SOCIOLOGICAL DETERMINANTS.

A community is more than a collection of individuals. Its members are part of a social system: they perform social roles and are bound to each other directly or indirectly by a network of rights and obligations. This system of inter-personal relationships, however, is seldom homogenous. It is usually divided into several distinguishable segments, each comprising its own subsystems of social roles. The segments are held together - tightly or loosely as the case may be by certain cooperative or

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competitive arrangement.

High in the hierarchy of sociological determinants of beha-

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viour STRAUS list the behaviour of his reference groups, his family, his age peers, those of the same sex, those belonging to the same social stratification group as identified by a cluster of social and economic variables, the residents of his neighborhood, the members of his church, his fellow employees or those engaging in the same occupation, and finally those persons as de-

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defined by ethnic or regional criteria. Koos studied the influence of reference group behaviour on the way in which an individual responds to a health problem. Consider the findings of Koos:

A mother belonging to an upper class family engaged the services of a physician to treat a self-limiting disease like chicken pox more as a status symbol of her class. The mother explained that she knew the illness is not serious but adds her circle of intimates will censure her for not seeking the doctors service as she is expected to do. In another instant, other mothers in her club think that they don't need a baby doctor regularly, but they go along because it's what they all think they are supposed to do. One housewife in a lower class thinks she is silly to see a doctor for the backache as she expects to be ridiculed by her friends.

Koos's study demonstrates that objective criteria regarding the relative seriousness of an illness are often quite unrelated to the way in which people will respond to or even recognize their own health. A common mother-child conflict or behaviour which mothers and others concerned may consider important to

health. One mother is concerned about wet feet, chilling and the possibility of upper respiratory infection in her boy who refused to put on rubber boots. The son is more concerned about the redicule rubbers will elicit from his age peers. This illustrates a conflict of reference groups. It may well be the son is right when he insists on acknowledging the pressures of his own reference group from the point of view of mental health. Redicule of his peers maybe a much greater threat to his health than a common cold. It is important to note that the sanctions exerted by the group toward conformity with their belief have great influence on individual behaviour.²¹⁴

Response to Illness.

Groups and classes of people areound the world in different historical periods has developed a variety of responses in meeting particular types of health problems. We tend to think that responses of the primitive man range from exotic to the bizarre little noting that in cross cultural research has identified a counterpart in the great variety of responses manifested by the population of a modern contemporary community. Straus²¹⁵ cites four alternative system of responses which influence modern health beliefs and behaviour:

1. Attitude towards scientific medicine.

Inspite of the great respect with which medical science is held, there are segments of our population,

including those living in modern urban communities who rarely or never utilize the services of medical science and it is rare indeed to find an individual who relies entirely on scientific medicine in his response to health problems.

2. Faith medicine.

This is broad category and covers a range from elaborate rituals of a particular religious group to or less specific form of faith in which the individual may depend upon a greater power to help him avoid illness or achieve recovery from disease or injury. From the universal point of view whether a group is civilized or primitive, religious faith embraces all the group activities, beliefs and general emotionalized attitudes which are concerned with the alliance of man to the
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supernatural world.

Barton in writing about the Ifugaos of northern Luzon, Philippines, mentioned 5,000 deities, each maybe propitiated for a certain wish protection including health
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needs.

Sometimes faith medicine conflicts directly with scientific medicine. When religious leaders double as healers of the body and soul thus competing directly with medical practitioners. More frequently than not, however, faith medicine and scientific

medicine are thought to be compatible and appropriate partners.

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Straus relates an account from a recent president of the American Medical Association as quoted by associated press.

"A physician who walks into a side room is not alone. He can only minister to the ailing person with the material tools of scientific medicine, his faith in a high power does the rest."

Many patients, no matter what their particular religious leavings, will resort to prayer as well as medical science when faced with serious illness. Even those religious groups which ordinarily reject scientific medicine may call upon its resources in time of crisis.

3. Folk medicine.

Folk medicine is that complex of beliefs and remedies located on the kitchen shelves and in the medicine cabinet of nearly every household. We nearly call upon this to deal with health problems day in and day out. This reflect the responses we have learned from our parents and they from their parents often extending many generations back. As older folk remedies are given up, new ones appear daily in the form of proprietary remedies. Folk medicine may or may not compete directly with medical science. Some folk remedies have been derived from medical science, others have been adopted by medical science, but there are

many others which must be classified as having no scientific validity or even as contradicting scientific knowledge.

4. Pseudo-Medicine.

This is represented by those specialists and nostrums which scientific medicine rejects, but which are represented in such a way that they are not differentiated from medical science by a large segment of the population. Included here are the chiropractors and naturapaths, and the vast variety of nonspecific remedies which are represented as providing specific cures. Pseudo-medicine is often in conflict with medical science.

A recent example of the utilization of several alternative responses to a health problem was seen in a middle aged woman who was visiting an internist because of chronic bronchial distress. The patient crossed herself on entering the internist's room and on taking a seat she was seen to bow her head and appeared to be engaging in prayer. As the nurse left her in the room the patient ignited a little container producing black smoke and noxious fume, inhaled deeply from it, tucked the container away. Finally, she was called to see the physician and for the time being at least transferred her reliance from faith and folk medicine to a representative of medical science. This particular patient did not appear to be

favoring anyone of the three systems over the other. She was relying on the three because all three were compatible with her own particular beliefs and very likely were supported by those of her reference groups.

There are wide variety of sociological phenomena which are significant determinants of health beliefs and behaviour which are significant determinants of health beliefs and behaviour. The identification and understanding of these can contribute to a better understanding of human behaviour, it can sharpen our understanding of sociological processes and together with similar insights in the biological and social sciences with clinical medicine, can contribute to a generic understanding of human response^{to} illness.

CULTURAL DETERMINANTS:

Some of the larger cultural issues which are relevant to public health lie in the field of religious belief. The response to public health education will be very different among those who regard this world as a training for heaven, those whose whole ethical attention is focused on life on earth and those, comprising a very large section of mankind, who believe in some form of reincarnation. If one's terrestrial body now in the twentieth century is the only body one will ever have, obviously it will be viewed very differently from

a body which is just one of an unnumbered series of bodies. If the individual is conceived as having only one meaningful existence, physical vigor and longevity become of paramount importance, and so living to be 80 and keeping ones teeth, or one's mind fresh may become overriding values.

Such culturally determined attitudes affect the way in which infant deaths are regarded: a stay on earth, however brief maybe a first step toward heaven, a first validation of a long individual existence, or the newborn's only chance to be a person. Whether priority is given to the needs of mother or of child in an obstetrical emergency, will also be partly determined by the relative value placed on a human being who has survived to adulthood versus one who has not yet had a chance
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to live.

In some rural areas of the Middle East, disease is believed to be caused either by failure to fulfill some religious ritual or ceremony, such as a financially able man not performing his pilgrimage, or the failure to give the promised offering to a
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saint.

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Dube working in India notes that calamities as the failure of crops, total blindness, repeated failures in undertakings, deaths of children in quick succession and too many deaths in the family within a short time, are taken to indicate "misfortune" and "the handiwork of malevolent supernatural forces." 221

The way a given people feel about the body as the root of evil, the temple of the spirit of God, a prison for the soul, or COTERMINUS with mans identity - will determine the framework within which health measures can be conceived and carried out whether a people are accustomed to plan for a long or a short future, to take precautions against disaster, or merely to pick up the pieces and appease the Gods after the disaster has occurred will determine what sort of preventive and precautionary measures can be embodied in a public health program.

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Kennedy in his study in Indonesia reports that the great majority of Indonesian about 90% are nominally Muslim; approximately 2,500,000 prefers Christianity; and the million Balinese are avowedly Hinduist in Religion. But the vital religion of the islands are the old ghost, spirit, and ancestor cults, which have persisted all through centuries despite surface changes. Magical concepts imbue other aspects of religious life as well. The purpose is usually a good one-healing the sick, helping the crop and the like. Belief has a vast store of magical power, and draw upon this mighty source for the benefit of the whole community.

Individuals and communities have ways of coping with sickness and thinking about sickness. All peoples practice some form of preventive medicine according to their own concepts of cause and prevention. People thus evaluate the acceptability

of newly offered advice according to their own matrix of culturally conditioned understanding....To enhance the likelihood of success, the health worker must modify the form of his health message so that it makes sense to the particular audience for which it is intended.

VI. DISCUSSION AND SUMMARY

The trend in developing health programmes today is founded on the assumption of extensive personal and public participation and responsibility on a well informed basis. The acceptance of modern health measures in developing countries is very much tied down with the literacy, socio-economic level, state of peace and order, and development of technology putting a strain on all efforts in health education.

The success of public health programme is to a very considerable extent dependent on corresponding advances and modifications in a number of other aspects of the culture, such as technological devices, systems of social and political organization, attitudes and values. The march of science and technology is discovering new means to promote dental health. The great challenge is to find ways of weaving the discoveries of science into the fabric of daily living.

It is an accepted principle that the most efficient method of combatting illness is to stop it at its source, to prevent its occurrence in the first place. However, the initial cost

of fluoridation, the mass caries preventive becomes inaccessible and a deterrent to its universal use. For this reason, the overwhelming majority of communities in developing countries are denied the benefits of this measure. Fluoridization has so much limitations that the number of beneficiaries depends on the availability of trained people limiting its usefulness and practicability in countries with insufficient resources. The cost of fluoride tablets by the same token is not within the reach of developing communities. The supply may not be readily and continuously available locally. Protracted daily intake of medicine in some societies connotes being unwell thus this method has not gained the expected popularity and acceptance.

MCH Dental Health programmes in less affluent countries are in need of inexpensive practicable, high yield protection mass measure for its beneficiaries which may render fluoridation and topical fluoride application superfluous. This would further bring the programme to broader coverage. The availability of newer concept and methods of strengthening MCH will no doubt rely more on community education for health to propagate its usefulness and direct its utilization.

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A news item datelined New York shows an encouraging and promising answer to this need. This involves brushing once or twice a year with a toothpaste containing more than twenty times the concentration of fluoride in ordinary dentifrice.

The news further states that it has been tested in "brush-ins"²²⁶ and about 1,250,000 people and 400,000 troops in Vietnam.

Dr. G. Kelly of Indiana University is quoted to say the "super paste" produced a 40 to 80 per cent reduction in tooth decay.

The U.S. Naval Dental Research is following another line of approach: to immunise against decay. Six strains of streptococci bacteria are known to cause dental caries. Canadian dentists using plastic coating to protect childrens teeth have achieved a 30 per cent reduction in tooth decay."

It is essential therefore that all members of the health team acquire a thorough understanding of the most appropriate educational methods and means which can serve to enlist this public participation and thus enable the people to do as much as they can for themselves with the aid of technical health services. In its broadest sense health education should start with the health worker intending to operate in the field. For a more realistic appraisal of health education problem and in the belief that changes in the behaviour of those taught is favourably directed, then the alteration of the attitude and behaviour of the teacher is first and foremost. To teach, the health educator must be able to learn.

Community health education is a task in reeducation as Benjamin Paul puts it, because every human community has developed an elaborate set of ideas attitudes and modes of behaviour in

response to the persisting problems of social living whether this are imparted to individuals through formal instruction or through thousand deffuse ways in which cultural conditioning is affected the adults of all communities are already educated.

With this in view a health worker, like a scientist should assume that when he comes to live with a group of people to introduce modern health practices the assumption should be that the people already possess some solutions to health problems. It will greatly simplify the health workers job if he does not assume that he is not approaching a vacuum when he starts to introduce health concepts. There is no such thing as a "Tabula Raza" a completely blank page of native attitude to health and disease. People have evolved various solutions to the health worker is to discover and understand this native solution; to descriminate; and to understand the cultural mechanism that can be manipulated to eliminate unscientific practices and to introduce the accepted norms of technology.

VII. CONCLUSIONS

1. The application of our available health knowledge remains to be the weakest link in our chain of health protection. One aspect is the receptivity of the public that can be reinforced more effectively through health education.

2. Health education is a teamwork endeavour; all members of the public health team has health education responsibilities. The dentist has a well defined role in health education.

3. A health education and dental care programme is best implemented as integral part of a greater health scheme. The MCH programme stands out as the most suitable and effective vehicle for such undertaking as it considers the crucial stages of human life; that of motherhood and pre-school age.

4. Little can be done to improve the standards of dental health of the child in the home unless parents are given as much education as possible in matters of dental health and nutrition.

5. The need for education in health matters is closely related to a variety of other educational, social and economic problems which directly or indirectly affect the level of health of the people. Therefore, knowledge of the community and its people is just as important as technical knowledge in Dentistry for which health education subscribe to the principle to "start" with people as they are and with the community as it is."

6. A change in an individuals ideas and practices can be brought about only through the individuals own efforts. So long as he is passive towards a situation no learning takes place. Inorder to take a voluntary preventive health action an individual must have a readiness and willingness to act whether or not an individual will act to preserve his health depends first on his judgement of its values in contrast with other things that he wish to do.

7, Some salient cultural barriers to new public health programmes regarding health include (a) suspicion of new things (b) fatalism (c) conflict with religious value and (d) dysfunctional social structure. Thorough understanding of local ways and values and the importance of fitting new ideas into the existing cultural framework should be observed if lasting results were to be achieved.

8. What is Axiomatic with anthropology that culture is an integrated, functional whole in which separate parts continually impinge upon each other, conditioning and governing and in turn being conditioned and governed applies to public health as well. Moreover, a change in one part of a culture will produce secondary and tertiary disturbance in other parts, or the primary change maybe difficult to induce because of limiting circumstances surrounding adjacent areas of culture.

In closing, I quote from Galagan, D.J.

"Many people who would choose to have good teeth and good dental health are denied the right to make their choice because their teeth have been neglected during the critical years of childhood and adolescence. What is needed is a generation of adults, parents, teachers and public health workers who will assume responsibility for seeing that the necessary preventive, educational and corrective services are available to the

children until they reach an age where they can make
their own decisions about the relative value of good
dental health." ²²⁷

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