THE HISTORY OF THE DEVELOPMENT OF DENTAL HYGIENE
IN THE ELEMENTARY PUBLIC SCHOOLS

DALLAS, TEXAS, FROM 1925-1939

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THE HISTORY OF THE DEVELOPMENT OF DENTAL HYGIENE IN THE ELEMENTARY PUBLIC SCHOOLS

DALLAS, TEXAS, FROM 1925-1939

THESIS

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By

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CHAPTER I

INTRODUCTION

Purpose of the Study

The purpose of this study was to determine the influence of the dental hygiene program of the elementary schools of Dallas, Texas, in (a) creating interest, (b) lending knowledge, and (c) promoting habits of proper care of the teeth.

Procedure

Data for this study was obtained from:

(a) The records of the City schools of Dallas, Texas.
(b) Personal interviews with the physical education teachers, dental hygienists, and nurses.
(c) Surveys of units of work.

Treatment of Data

A brief history of dental hygiene in Dallas, Texas, was given for the purpose of determining the growth and value of the program employed.

The main body of the study is composed of units of work used in various schools, plays and games furnished by the instructor of Dental Hygiene, and charts and tables were drawn to show graphically the results obtained.
CHAPTER II

THE AIMS AND OBJECTIVES OF THE DENTAL HYGIENE PROGRAM

The teeth of the American children are said to be poor. Out of an average unselected group some fifty to seventy-five per cent show dental defects. A survey made in portions of Michigan by W. R. Davis, D.D.S., reporting in The Nurse and Teacher in a Public Health Dental Program said that "Eighty-six per cent of the children needed fillings, extractions or both; fifty-six per cent had cavities in permanent teeth; fifty-five per cent had definite mouth infection, with pus and putrificative substances running down the throat twenty-four hours in the day."

The January, 1931, Hygeia give the following report of a survey conducted in Philadelphia showing the need of conserving the children's teeth:

A recent survey in the Philadelphia Public Schools showed that ninety-eight per cent of the children suffered from tooth neglect. This was disclosed by Dr. John Detlefsen, executive director of the Philadelphia Mouth Hygiene Association, an organization of dentists, philanthropists, social workers, and heads of dental schools. Dr. Detlefsen examined ten thousand children in the public schools to find only two per cent with healthy well cared for mouths.

1A Handbook of Dental Health Education, No. 731-3-17-34.
There seems to be widespread ignorance of the need for keeping the teeth healthy. The Philadelphia Mouth Hygiene Association found an average of nine cavities per mouth in the children of the lower grades, and a general laxity and carelessness about dental health that showed public indifference, so something had to be done. The ultimate dream is a central dental infirmary, with branch clinics all over the city.  

The Massachusetts Department of Public Health gives as its objectives:

1. The prevention and control of dental diseases among children of all ages through:
   a. routine dental care
   b. good nutrition
   c. regular home care
   d. education

The Dallas, Texas, Department of School Health Work in cooperation with the Dallas County Dental Society seeks to encourage better attitudes toward mouth hygiene and the care of the teeth.

Katherine Langford, Dental Hygienist of Dallas, Texas, gives as the objectives of the dental health program in the Dallas city schools the following:

1. The principal objective of the Dental Health Program is the prevention and control of dental diseases among school children:
   a. by routine dental examinations
   b. by presenting sound principles in good nutrition, so that pupils may build sound, healthy teeth
   c. by instruction in good dental practices that will arouse mouth health consciousness.

---

2 Ruth L. Frankel, "Conserving the School Child's Teeth as It is Done in Philadelphia," Hygeia, IX, 57-59, (January, 1931).

3 School Hygiene Handbook No. III, p. 73.
d. by creating an interest for regular and early dental correction as well as establishing the daily habit of home care of the teeth

e. by establishing early the close relationship between mouth health and general physical good health.

2. The development of a joint program of health education of the Dallas County Dental Society and the Department of School Health work for the complete understanding of the policies of each group:

a. for more effective dental health education
b. for better children's dentistry.⁴

⁴Katherine Langford, Dental Hygienist of Dallas, Texas, Public Schools, October, 1934.
CHAPTER III

HISTORICAL BACKGROUND

The dental hygiene program was introduced into the Dallas Public Schools, Dallas, Texas, in 1925 with Marion F. Webster as director of this new department.

He was unable to retain his position because of a verbal understanding of the Board of Education with the Dental Association to the effect that no one employed by the public schools as a dental hygienist could maintain a private practice. Dr. Webster, not wanting to give up his private practice, resigned his position.¹

Katherine Street Langford, D. H. A., graduate of the Forsyth Dental Infirmary of Boston, Massachusetts, was employed in 1925 and given the title of Dental Hygienist. She has held the position up to the present time.

A brief history of the school from which Katherine Langford graduated follows:

The Forsyth Dental Infirmary for children was founded by John Hamilton and Thomas Alexander Forsyth in memory of their brothers, James Bennet and George Henry Forsyth and was incorporated in 1910 by a special act of the Massachusetts legislature. It was dedicated on November 12, 1914. The clinics were opened soon after and were in full operation by the first of January, 1915.

The aim of the institution is to render serviceable the cavious teeth of children; to teach the

¹Interview with N. R. Crozier.
principles of mouth hygiene and to make every effort to determine where lies prevention. To this end all children who are financially eligible, are accepted for treatment.

When this institution was founded it was unique in that no attempt had been made to care for the teeth of a community on a large scale. So successful have been the results that other similar institutions are now founded and are in process of being established.2

Katherine Langford, Dental Hygienist, gave a summary of the routine of dental hygiene in the following statement:

The Board of Education finances the school mouth hygiene program. Dental inspections of school children are made by the school nurse; mirror and explorer method is used; and all children entering the first grade and those new to the system are given routine examinations. Children entering Junior High Schools for the first time are examined. Approximately 5,000 of the 40,000 children are given routine examinations each year.

The parents are sent invitations to be present for the routine examination. If dental care is advised a recommendation slip is given the child, which he takes home. There is a place on this slip for the parent to indicate how he wishes to take care of this matter. This part of the slip is presented to the dentist when the visit to the office is made. The dentist may either sign this slip on the reverse side, or he may give the child a dental report properly checked, which is returned to the school nurse.

The nurse makes home calls on all cases considered urgent. If the parent is not contacted at home the nurse urges the child to have his mother come to the school clinic for a conference.3


3Katherine Langford, Dental Hygienist, Dallas Public Schools, Dallas, Texas, November, 1935.
For the first ten years of its existence the dental hygiene program in the public schools of Dallas, Texas, consisted mainly of films presented to the Department of School Health Work by the local dental society, and educational talks given to parents and children by Katherine Langford, Dental Hygienist.

In 1935, a program was started which has been far reaching and very effective in results obtained. The honor roll was begun and stars were given to those who had dental care. This program is now in effect in all of the elementary schools of Dallas. Units given by the physical education teacher are a contributing factor in the success of the program employed.

A national survey of mouth hygiene programs for school children was conducted in 1937 and a general summary of the program follows:

There are thirty-eight cities in the United States having a population of 150,000 to 500,000. In all but one there is a program of Mouth Hygiene Education or Service, or both, for children; although the extent of the program varies greatly.

In twenty-four of these cities the program is administered by the public school department. Local dental societies act as cooperative agencies in a number of the cities as do parent-teacher associations and private philanthropic organizations.

The administration of the program is divided as follows:

<table>
<thead>
<tr>
<th>Administration</th>
<th>Number of Cities</th>
</tr>
</thead>
<tbody>
<tr>
<td>Department of Schools</td>
<td>24</td>
</tr>
<tr>
<td>Department of Health</td>
<td>9</td>
</tr>
<tr>
<td>Shared by Schools &amp; Health Depts.</td>
<td>2</td>
</tr>
<tr>
<td>Dental Foundation</td>
<td>1</td>
</tr>
<tr>
<td>Dental Society (volunteer)</td>
<td>1</td>
</tr>
<tr>
<td>No Program</td>
<td>1</td>
</tr>
<tr>
<td>Total</td>
<td>36</td>
</tr>
</tbody>
</table>
In a majority of the cities (20) a dentist is responsible for the active direction of the program. Physicians rank next in number (11 cities). The remaining cities have the following systems of direction: Two by nurses, one by a dental hygienist, one by health educator, and two did not supply this information.

There is considerable difference in the type and combination of personnel who make the dental inspections. Where there is an overlapping of personnel it is usually found that the nurse or hygienist acts as an assistant; although occasionally each assumes responsibility for certain grades or schools.

**Type of personnel making inspections:**

<table>
<thead>
<tr>
<th>Personnel Combination</th>
<th>Number of Cities</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dentist</td>
<td>3</td>
</tr>
<tr>
<td>Nurse</td>
<td>5</td>
</tr>
<tr>
<td>Dental Hygienist</td>
<td>4</td>
</tr>
<tr>
<td>Dentist &amp; Dental Hygienist</td>
<td>4</td>
</tr>
<tr>
<td>Physician &amp; Nurse</td>
<td>3</td>
</tr>
<tr>
<td>Physician</td>
<td>2</td>
</tr>
<tr>
<td>Dentist &amp; Nurse</td>
<td>2</td>
</tr>
<tr>
<td>Teacher</td>
<td>1</td>
</tr>
<tr>
<td>Dentist, Hygienist, &amp; Nurse</td>
<td>1</td>
</tr>
<tr>
<td>Dentist, Hygienist, &amp; Physician</td>
<td>1</td>
</tr>
<tr>
<td>Dental Hygienist &amp; Nurse</td>
<td>1</td>
</tr>
<tr>
<td>Physician, Nurse, &amp; Teacher</td>
<td>1</td>
</tr>
<tr>
<td>Nurse &amp; Teacher</td>
<td>1</td>
</tr>
<tr>
<td>No Program</td>
<td>1</td>
</tr>
<tr>
<td>No Answer</td>
<td>3</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>38</strong></td>
</tr>
</tbody>
</table>

There also is considerable variation in the grades given dental examinations. Not all of the cities make the examinations yearly; although that is the general procedure.

**Grades receiving dental examinations:**

<table>
<thead>
<tr>
<th>Grade Description</th>
<th>Number of Cities</th>
</tr>
</thead>
<tbody>
<tr>
<td>Kdg. or 1st grade through High School</td>
<td>9</td>
</tr>
<tr>
<td>Kdg. or 1st grade through Jr. Hi.(8-9 gr)</td>
<td>7</td>
</tr>
<tr>
<td>Kdg. or 1st grade through Elem. School</td>
<td>11</td>
</tr>
<tr>
<td>1st through 7th (Syracuse)</td>
<td>1</td>
</tr>
<tr>
<td>Kdg. 1-3-5-7 gr. Jr.&amp;Sr. High (Fort Worth)</td>
<td>1</td>
</tr>
<tr>
<td>1-2-3-6 or 7 (Kansas City)</td>
<td>1</td>
</tr>
<tr>
<td>4-5-6-7-8-9 (Oklahoma City)</td>
<td>1</td>
</tr>
<tr>
<td>1-4-7-8 (Omaha)</td>
<td>1</td>
</tr>
<tr>
<td>New pupils, 1st &amp; entering Jr. Hi.(Dallas)</td>
<td>1</td>
</tr>
<tr>
<td>2-3 (Providence)</td>
<td>1</td>
</tr>
<tr>
<td>No Program</td>
<td>1</td>
</tr>
<tr>
<td>No Answer</td>
<td>3</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>38</strong></td>
</tr>
</tbody>
</table>
Eleven of the cities use tongue depressors in making the dental inspections. Nine of them use mirror and explorer method, one city uses both methods, one uses the tongue depressor and explorer, and fifteen did not supply this information.

Eighteen of the cities indicated that contacts were made with the parents in an effort to secure correction of defects found in the dental examination.

Methods given were:

<table>
<thead>
<tr>
<th>Method</th>
<th>Number of Cities</th>
</tr>
</thead>
<tbody>
<tr>
<td>Notes sent home to parents</td>
<td>13</td>
</tr>
<tr>
<td>Personal consultation with parents</td>
<td>1</td>
</tr>
<tr>
<td>Contacts through mother's clubs</td>
<td>1</td>
</tr>
<tr>
<td>Home visits</td>
<td>1</td>
</tr>
<tr>
<td>Personal consultation with child and parents and home visits</td>
<td>1</td>
</tr>
<tr>
<td>Notes to parents, home visits, personal contact with parent and child</td>
<td>1</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>18</strong></td>
</tr>
</tbody>
</table>

In most cases the financial status of the family is investigated before the child is referred for part pay or free service. This is done frequently by the nurse working in cooperation with other personnel. The following table indicates the personnel used for making financial ratings:

<table>
<thead>
<tr>
<th>Type of personnel</th>
<th>Number of Cities</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nurse</td>
<td>22</td>
</tr>
<tr>
<td>Principal</td>
<td>9</td>
</tr>
<tr>
<td>Teacher</td>
<td>6</td>
</tr>
<tr>
<td>Social Agency</td>
<td>6</td>
</tr>
<tr>
<td>Dental Hygienist</td>
<td>3</td>
</tr>
<tr>
<td>Social Worker</td>
<td>2</td>
</tr>
<tr>
<td>Physician</td>
<td>1</td>
</tr>
<tr>
<td>Dentist</td>
<td>1</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>50</strong></td>
</tr>
</tbody>
</table>

Section II, Cities of 150,000 to 500,000 Population, pp.1-5.
CHAPTER IV

ATTITUDES

The major problem which arose on the introduction of the dental program and upon which the later success of the entire project depended to a great extent, was the creation of a desirable attitude between parent and teacher.

Louise Wheeler, Physical Education Teacher of Vickery Place School, Dallas, Texas, related the following interesting story regarding attitudes.

In her check up work she issued notes to the children who needed dental attention. When she got her report next day she asked Johnny Jones if he went to the dentist.

He said, "No, I didn't."

"Why?" asked Miss Wheeler, and he came back with the astounding reply,

"Mother said if you would pay the bill she would gladly take me."\(^1\)

This attitude of the parents, that they could not afford dental care for their children, presented to the teacher the problem of educating the parents to the fact that it was an economy rather than an expense.

\(^1\) Interview with Louise Wheeler.
The State University of Iowa gave some suggestions on creating right attitudes which were as follows:

Much of the work in the dental health field is a family matter. A child may feel very deeply about matters of health but be unable to make progress without family approval. The teacher who does not study this aspect of the situation cannot hope to succeed.

Parents are busy people, interested and anxious about their children, but often they have had no preparation for dealing with family problems or with child training.

Here are nine common reasons for friction between parents and teachers. They call attention to motives that may be covered up by anger or other defensive behavior:

1. Offended prerogative. "This is my child. It is my affair to prescribe for his welfare."
2. Belief that the school is over-stepping its authority. "Health is a matter of the home."
3. Wounded pride. Parent believes his knowledge of adequacy is attacked.
4. Shyness. Fear of the teacher's superiority in the situation.
5. Fear of added expense.
6. Interruption of plans, unwillingness to give time.
8. Difference of opinion due to difference in training. A parent who has once been a teacher or nurse may disagree with your position.

Means of establishing better relations between school and home:

1. Making home calls.
2. Frequent letters to parents to emphasize progress made by the children, and to explain school activities. Children may often unite these as a language exercise.
3. Asking parents for help in carrying out activities.
4. Exhibits and talks at Parent-Teacher Association meetings.
5. Helping parents to solve problems when asked for advice. Aiding the children to purchase tooth brushes, milk, etc., by enlisting aid for them without incurring offense.
6. Inviting parents to school to hear children discuss dental health teaching.
7. Preparing children for a tactful and courteous approach to their parents when some request or suggestion is to be made.
8. Forming a dental health committee of the Parent-Teacher Association headed by a chairman. This committee to help nurses and teachers to arrange clinics, arrange for services for the needy children.\(^2\)

\(^2\)Bulletin of the State University of Iowa, Series No. 731, March 17, 1934, pp. 5-7.
CHAPTER V

THE DENTAL HYGIENE PROGRAM IN OPERATION

The dental hygiene program in the public schools of Dallas, Texas, aims to render service to each child in the school system. The program was city wide, therefore all elementary schools used the same basic procedures. The interest arousing techniques were left to the physical education teachers.

Methods used to help promote interest in the dental project were as follows:

1. Jimmy Chew Booklets
3. Films from Department of Health
   a. Care of the Teeth
   b. Growth of the Teeth

A certificate is awarded by the Dallas County Dental Society to every class having ninety per cent on the Dental Honor Roll. The class which has one hundred per cent on the honor roll merits a gold star certificate.

Figure one, page 14, illustrates the certificate given classes when they have attained the goal of ninety per cent or above.

A silver loving cup is awarded to the school which shows the greatest per cent of improvement over its own
THIS IS TO CERTIFY that the __________ per cent of the children have been placed on the Dental Honor Roll.

DENTAL CERTIFICATE

DENTAL \& NURSES' SCHOOL

President: Dallas County Dental Society

D. D. S.

M. D.

Date
record of the preceding year. An honor roll must be submitted from each class in the school before that school is considered for the trophy.

The schools which have attained one hundred per cent receive special recognition at the close of the project. The percentage of blue star candidates must be reduced five per cent over the preceding year's record for the school to be eligible for the one hundred per cent achievement cup.

A bulletin is sent to each teacher in a building at the beginning of the year in order that they may be enlisted in the promotion of the dental program. This bulletin explains in detail how to judge the eligibility for each type of star, and suggests how to promote interest. Copies of bulletins sent to teachers by the dental hygienist are shown on the following pages.

The report showing the dental health project over a period of four years is included in the appendix of this thesis.

The dental hygienist goes to each school and examines each child's teeth. She furnishes material to create the interest of parent and child. The report blank on which the dental hygienist records her findings after the routine examinations are made is found in the appendix.

Letters are sent to each parent to inform them of the visit of the dental hygienist. These letters give the date and time for the child's examination.
Outline of Dental Health Project

This outline is prepared as a practical guide in the dental health education program of the Dallas Public Schools.

The Department of School Health Work in cooperation with the Dallas County Dental Society seeks to encourage better attitudes toward mouth hygiene and care of the teeth.

The following materials have been prepared to assist the schools participating in the project.

Educational materials:

1. Outline of the project
2. Instructions to teachers
3. Dental Honor Rolls
4. Stars
5. Tooth brushes - toothpaste
6. Films
7. Information materials for school and home use
8. Jimmy Chew booklets

Service to assist teachers: The dental hygienist is available at all times for:

1. Special examinations
2. Classroom talks
3. Conferences by appointment - afternoons, 4:00-5:00

Objectives:

1. The principal objective of the dental health program is the prevention and control of dental diseases among school children.

   a. By routine dental examinations
   b. By presenting sound principles in good nutrition, so that pupils may build sound, healthy teeth
   c. By instruction in good dental practices that will arouse mouth health consciousness
   d. By creating an interest for regular and early dental attention as well as establishing the daily habit of home care of the mouth
   e. By establishing early the close relationship between mouth health and general physical good health
2. The development of a joint program of health education of the Dallas County Dental Society and the Department of School Health Work for the complete understanding of the policies of each group

a. For more effective dental health education
b. For better children's dentistry

Activities:

1. Institution of Dental Honor Roll in each room (read instruction sheet carefully)

   a. Inspection of each child's mouth by the home room teacher to determine who may be candidates for the Dental Honor Roll (use space allotted to Teeth on Teacher-Nurse Classroom Health Record). Check as directed in directions which accompany Classroom Health Record.

   b. Inspection by the nurse of candidates recommended by the teacher

   c. Examination by dental hygienist of questionable cases

   d. Collection of Dental Reports by home room teacher from children who have been to the dentist for actual dental work since June 1 of this year. These reports are to be sent to the nurse immediately.

   1. Every child should be encouraged to bring a report from his dentist.

   2. If this is not possible the dental hygienist will examine questionable cases.

   3. All dentists who are members of the Dallas County Dental Society are supplied with these Dental Reports.

2. Classroom or auditorium talks conducted by the dental hygienist upon request

3. Winnebago Indian Tooth Magic Show by Good Teeth Council for Children - sponsored by the Dallas County Dental Society and its Auxiliary

4. Films are available any time from the Department of School Health Work office.

   a. Care of the Teeth - for third, fourth, and fifth grades
   b. Growth of the Teeth - for sixth grade through high school
5. Classroom activities which will create interest and promote the project may be developed by the individual teachers. Correlation of dental hygiene with other subjects being taught will be helpful. The services of the dental hygienist as well as good factual material on dental hygiene are available from the Department of School Health Work office at all times.

Outcomes:

1. For the child:

   a. Interest, attitudes, habits, and knowledge regarding dental hygiene should be improved.
   b. More dental corrections will be obtained through this group activity.

2. For the class:

   a. A certificate will be awarded by the Dallas County Dental Society to every class having 90% of the class on the Dental Honor Roll.
   b. If a class has 100% on the Honor Roll a gold star certificate will be given as soon as the 100% has been achieved. It is expected the class will maintain good dental hygiene to keep certificate the entire year.

3. For the school:

   A silver loving cup will be awarded to the school which shows the greatest percent of improvement over its own record of the preceding year. An Honor Roll must be submitted from each class in the school to be considered for the trophy.

100% schools - Schools which have attained 100% will receive special recognition at the close of the project. The percentage of blue star candidates must be reduced 5% less than the preceding year's record to be eligible for the 100% Achievement Cup.

1Mimeograph bulletin issued by Department of Health Education of Dallas, Public Schools.
Instructions to Teachers Regarding Dental Health Project

1. Read the project carefully.
2. Place Dental Honor Roll in conspicuous place by October 13.
3. Know rules for awarding stars as follows:
   a. Gold star
      (1) There are no dental defects evident; all cavities have been filled; teeth are clean and well cared for.
      (2) Stars will be awarded by dental hygienist or upon receipt of certificate from dentist.
   b. Silver star
      (1) All dental work necessary at this time has been done; teeth are clean and well cared for. Children wearing Orthodontic Appliances must have all other operative work completed.
      (2) Awarded upon receipt of certificate from dentist since June 1, 1937
      (3) Awarded by nurse or dental hygienist
   c. Blue star
      (1) All dental defects have not been corrected, but some corrective work has been done in the last six months.
      (2) The star can be awarded by the dentist or dental hygienist only.

4. This should be a project for the home room.
5. Each home room teacher should inspect her class to determine which pupils should be recommended as candidates for the Dental Honor Roll. The home room teacher shall make the first survey. Those pupils considered eligible for the Dental Honor Roll will be sent to the nurse for inspection. The dental hygienist will check all questionable cases.
6. If a Dental Report is returned from the dentist, the grouping of the child is made according to report given.
7. Inspection of teeth by the teacher
a. Give a talk to the class before beginning inspection

(1) Explain nature of project
(2) Explain meaning of Dental Honor Roll

b. Procedure to follow

(1) Have child near window, facing window when teeth are inspected, so you will have a good light in child's mouth.
(2) Examination of teeth

(a) Have child open the lips and bite the teeth together. This will give you an opportunity to determine if the teeth are clean and well cared for (free from stain, tartar, or food deposits), and also if the gums are pink, firm, and healthy.
(b) Have child open mouth wide.

Check for cavities. No time need be spent in counting the number of cavities, as one small cavity is sufficient to indicate need of treatment.
(c) Any deviation from the normal should be passed on by a dentist or the dental hygienist.
(d) It is not necessary for the teacher to touch the children when this inspection is done. Obvious defects are readily seen.
(e) Use space allotted for Teeth on Teacher-Nurse Classroom Health Record for making notation of dental conditions with code as explained in directions accompanying Teacher-Nurse Classroom Health Record.
(f) Give list to the nurse who will refer necessary cases to the dental hygienist.

9. Urge that visit be made to dentist if possible. Care must be taken so that pressure will not be brought to bear on the children whose parents cannot take them to the dentist for corrective work.

a. Emphasize the positive aspect.

b. Give recognition to those who are trying to get on the Honor Roll, taking care to discuss the group and not individual children.

c. Encourage children to talk with you personally if they are not on the Roll, but do not embarrass a child by calling attention to his case in the classroom.
Important

9. Put names on the Honor Roll only after you have consulted the school nurse. The nurse will have a supply of stars.

10. This project shall be carried on throughout the school year.

11. The Honor Rolls should be forwarded to the proper teachers at mid-term.

12. Names of retained children and new pupils received at mid-term are entered on the Honor Rolls you receive at each new term.

13. The Honor Rolls must be in the Department of School Health office not later than May 20, 1938.

Under the name of the teacher note the number belonging in the class May 17, 1938.

14. One hundred per cent schools must reduce per cent of blue star candidates 5% less than preceding year's record to be eligible for the 100% Achievement Cups.2

Figure two on the following page is a copy of the report sent to each parent or guardian.

After the dental hygienist makes her examination and recommends the type of work to be done, the child goes to any reputable dentist. If the corrections are made, the dentist then sends a slip to the school which the child attends and states the type of star he should receive.

Figure three explains why a child is entitled to a gold, blue, or silver star.

The physical education teacher usually is the one who works out the unit of work for the promotion of interest in the Dental Honor Roll. She solicits the cooperation of other departments in the school in promoting the program.

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2 Hieograph bulletin issued by Department of Health Education of Dallas Public Schools.
TO THE PARENTS:

The school physician will be at school to examine the children in the grade. We invite and urge you to be present for the examination. This examination is made so that we can better understand your child and confer with you concerning your child's health needs and advisable preventive measures. The Board of Education has provided this health service for the protection of your child. The value of the examination is greatly enhanced by the presence of the parent at the time of the examination.

We suggest that you be present at a.m.

p.m.

School Nurse.

Fig. 2 Invitation To Parents
DALLAS COUNTY DENTAL SOCIETY
COOPERATING WITH
DEPARTMENT OF SCHOOL HEALTH WORK
DALLAS PUBLIC SCHOOLS
DENTAL REPORT

This is to certify that ___________________________ has had necessary dental work done at this time and is entitled to star as checked below.

— **GOLD STAR** — There are no dental defects evident; all cavities have been filled; teeth are clean and well cared for.

— **SILVER STAR** — All dental work necessary at this time has been done; teeth are clean and well cared for. Children wearing Orthodontic Appliances must have all other operative work completed.

— **BLUE STAR** — All dental defects have not been corrected, but some corrective work has been done in the last six months.

______________________________________________
Date

This Dental Report expires in six months.

Fig. 3 DENTAL REPORT
The following is an example of a dental hygiene unit. This unit was worked out by Louise Wheeler, Physical Education Teacher in the Vickery Place Elementary Public School, Dallas, Texas.

Figure four A is an illustration of the ladder used in beginning the dental honor roll unit of work. Each class was placed on a tooth brush and the brush was attached to the first rung of the ladder. Classes worked to have their brushes reach the top of the latter thus gaining one hundred per cent which entitled them to a gold certificate.

The classes were checked each week by Louise Wheeler and if they had gained five per cent they advanced one rung.

This unit of work was carried on intensively for three months. At the end of the school year the percentage of those who belonged to the honor roll had increased two per cent over the previous year. The success of this unit of work was due largely to the hearty cooperation of the various departments of the school. The art department drew the ladder. The Vickery Place School News Bulletin prepared by the English department published the names of all those on the honor roll. Thus the dental hygiene program came to be a paramount issue in each classroom.

Figure four B illustrated the final position of each class on the ladder at the close of the unit of work.
Fig. 4a Vickery Place Dental Unit
Fig. 4b Vickery Place Dental Unit
The dental honor roll was put into use in 1935. It is the axis about which the whole program revolves. Table one which covers a period of four years is an example of the effect it had on the increase of dental defects corrected. The figures are taken from the honor roll of Vickery Place School, Dallas, Texas.

Figure five illustrates the honor roll which is placed in each home room. Each child's name is put on as he has dental work done. A star is given in accordance with the rules of the dental honor roll which are (1) if all defects are corrected he is entitled to a gold star, (2) if all work is done which is necessary at the time and his teeth are clean he gets a silver star, and (3) if all defects are not corrected but some correctional work has been done then he gets a blue star. The class works together, and each tries to be the first to attain 100 per cent and a gold certificate.

Jessyee Smith, Physical Education Teacher of Winnetka Elementary Public School, Dallas, Texas, presented another unit of work in which the slogan was, "Hitch your tooth brush to a star."

There was not much interest in dental corrections. Six weeks before the contest ended the poster was made. There were fifteen classes each of which was given a tree. As a child earned a star a limb was added to the tree with the child's name written upon it with a star at the end.
### Table 1

The number of pupils who were on the honor roll and who received each type star each year from 1934 to 1938 inclusive, Vickery Place School, Dallas, Texas

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<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
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<tr>
<td>Gold</td>
<td>114</td>
<td>138</td>
<td>208</td>
<td>403</td>
</tr>
<tr>
<td>Silver</td>
<td>93</td>
<td>166</td>
<td>117</td>
<td>42</td>
</tr>
<tr>
<td>Blue</td>
<td>249</td>
<td>111</td>
<td>266</td>
<td>86</td>
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</table>

* a. Enrollment in 1934-35 was 724
  b. "    " 1935-36 " 786
  c. "    " 1936-37 " 776
  d. "    " 1937-38 " 669

### Table 2

The number enrolled, number on honor roll, per cent on honor roll by years from 1934 to 1938 inclusive, Vickery Place School, Dallas, Texas

<table>
<thead>
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<th>Years</th>
<th>1934-35</th>
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<th>1936-37</th>
<th>1937-38</th>
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<td>Number Enrolled</td>
<td>724</td>
<td>786</td>
<td>776</td>
<td>669</td>
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<tr>
<td>Number on Honor Roll</td>
<td>63%</td>
<td>54%</td>
<td>82%</td>
<td>84%</td>
</tr>
<tr>
<td>Per Cent Gained or Lost on Honor Roll</td>
<td>9%</td>
<td>28%</td>
<td>27%</td>
<td></td>
</tr>
</tbody>
</table>
Dental Honor Roll

Vickery School

Bays
1. J. Ben Ashby
2. Don Palmore
3. Richard Roberts
4. John Kinnison
5. Cecil Reddick
6. Dan Boye
7. Dick Boyer
8. Gerald Little
9. Stanton Meyers
10. Bobby Temple
11. Macky Trickey
12. Henry Mobley
13. George Long
14. Edward Miller
15. Ervis Elmer Laws
16. John Cole
17. David Owen
18. Johnny Johnson
19. Elliott Trimble
20. Jack Mindado

Girls
1. Margaret Clephane
2. Robbie Sue Porterfield
3. Mary Oram
4. June Ward
5. Mary Margaret Bentley
6. Nancy Taylor
7. Frankie Treadaway
8. Jean Tidwell
9. Velma Thompson
10. Vallone Franklin Ann
11. Betty Mae McGee
12. Betty Anderson
13. Mary Massenburg
14.
15.

ON THE HONOR ROLL BY MAY 3—CHILD HEALTH DAY

GOLD STAR: There are no dental defects evident; all cavities have been filled; teeth are clean and well cared for.

SILVER STAR: All dental work necessary at this time has been done; teeth are clean and well cared for. Children wearing Orthodontic Appliances must have all other operative work completed.

BLUE STAR: All dental defects have not been corrected, but some corrective work has been done in the last six months.

DALLAS COUNTY DENTAL SOCIETY
COOPERATING WITH
DEPARTMENT OF SCHOOL HEALTH WORK, DALLAS PUBLIC SCHOOLS

Fig. 5
The race was to see which class had the most stars at the end of the contest.

There were four hundred fifty-four children enrolled in these fifteen classes. When the poster was made one hundred pupils had stars. At the end of six weeks three hundred fifty-three had stars. This was an increase of thirty-nine per cent.¹

Figure six shows a picture of a tree used in the Winnetka School dental unit. Figure seven is a photograph of the second or permanent teeth. The following Table three shows the number of dental corrections made in a period of six weeks.

¹ Lassayee Smith, Winnetka Public School, Dallas, Texas.
Fig. 6 Winnetka School Dental Unit
Fig. 7 — WHEN THE PERMANENT TEETH COME INTO THE MOUTH

- Central Incisors: 6 to 7 years
- Lateral Incisors: 7 to 8 years
- Canines: 11 to 13 years
- First Bicuspids: 9 to 11 years
- Second Bicuspids: 9 to 11 years
- First Molars: 6 years
- Second Molars: 12 years
- Third Molars: 17 to 21 years
TABLE 3

THE NUMBER OF DENTAL CORRECTIONS MADE IN A PERIOD
OF SIX WEEKS IN THE FIRST THROUGH THE FIFTH
GRADES AT WINNETKA SCHOOL, DALLAS, TEXAS

<table>
<thead>
<tr>
<th>Class</th>
<th>Number Enrolled</th>
<th>Number With Stars at Beginning</th>
<th>Number With Stars at Close</th>
<th>Per Cent at End of Race</th>
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<tr>
<td>L1a</td>
<td>35</td>
<td>13</td>
<td>20</td>
<td>57</td>
</tr>
<tr>
<td>L1b</td>
<td>32</td>
<td>20</td>
<td>26</td>
<td>81</td>
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<tr>
<td>L1</td>
<td>28</td>
<td>12</td>
<td>26</td>
<td>92</td>
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<td>L2a</td>
<td>30</td>
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<td>90</td>
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<td>33</td>
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<td>77</td>
</tr>
<tr>
<td>L3a</td>
<td>32</td>
<td>16</td>
<td>25</td>
<td>78</td>
</tr>
<tr>
<td>L3b</td>
<td>35</td>
<td>12</td>
<td>29</td>
<td>82</td>
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<tr>
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<td>55</td>
</tr>
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<td>L4a</td>
<td>39</td>
<td>17</td>
<td>34</td>
<td>82</td>
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<tr>
<td>L4b</td>
<td>31</td>
<td>8</td>
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<td>64</td>
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<td>L5a</td>
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<td>19</td>
<td>76</td>
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<td>L5c</td>
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<td>70</td>
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<tr>
<td>15 Classes</td>
<td>454</td>
<td>183</td>
<td>353</td>
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39 Per Cent Gain in Six Weeks Period

Jessyce Smith, Winnetka Public School, Dallas, Texas
CHAPTER VI

CLINIC SERVICE PROGRAM

The clinics of all the major hospitals of Dallas, Texas, work in conjunction with the schools in the correction of dental defects. The following report is taken from a

Survey of Mouth Hygiene Programs for School Children and

was written by Katherine Langford, Dental Hygienist.

Several clinic services are available. Whenever there is a question as to the financial status of a child, the school nurse makes a home call. If she is unable to satisfy herself concerning the family's financial status, she may consult the social service exchange which serves as a clearing house for all agencies in Dallas requiring this information.

Presbyterian Clinic

A full-time and a part-time dentist are employed on salary to carry on the service in this clinic, which operates two chairs on Monday through Friday of each week from 8:00 A.M. to 3:00 P.M. Cases up to fourteen years of age are referred from the various departments of the Presbyterian Clinic. They are of all races and creeds.

Emergency cases are sent in by the nurse or dental hygienist. Newsboys are cared for in the clinic. The Kiwanis Club of Dallas contributes to the support so that any newsboy in the city may receive proper dental attention.

Parkland Hospital

Parkland Hospital offers emergency extraction service on Monday, Wednesday, and Friday for whites and on Tuesday, Thursday, and Saturday for negroes.
A full-time dental intern is employed by city and county funds to carry out this service.

**Baylor Hospital**

The dental clinic of the Baylor Hospital will give emergency extraction service to children referred from the medical department. It operates one chair on one afternoon a week from one to three P.M. The dentist donates his time.

**Methodist Mexican Mission**

Free treatments for indigent Mexicans, both children and adults, are offered on the third Wednesday of each month by appointment at the mission. Treatment includes prophylaxes, extractions, and amalgam fillings. The dentist who operates the one chair donates his time, the clinic itself being maintained by the Methodist churches.

**Methodist Hospital - Dental Clinic**

The Oak Cliff Lions Club maintains this dental clinic with office hours on three days a week, twelve to two P.M. A ten cent registration fee is asked. The three dentists donate services one day a week to operate the one chair, giving treatments including prophylaxes, extractions, amalgam fillings, and periodontia treatment when needed.

**Baylor Dental College Clinic**

The Baylor Dental College Clinic of fifty chairs is operated five and a half days a week. It offers all necessary dental work to white children and extractions to negro children. Children are accepted in groups of ten. They are accompanied by the school nurse on the first visit for prophylaxis. Parents accompany children on subsequent visits.

Nominal fees are charged: ten cents for registration, twenty-five to fifty cents for prophylaxis and extraction, and seventy-five cents and up for fillings. Orthodontia fee is based on cost of materials used.
Merrilac Clinic

The Merrilac Clinic with one dental chair is maintained by the St. Paul Hospital with office hours on three days a week. Three dentists donate services one afternoon each week. They give treatments including prophylaxis, extraction, fillings, silver nitrate, and periodontia. Patients are asked to pay a small fee if able to do so.

Colored Dentists

Five colored dentists in the city cooperate with the schools to the fullest extent in caring for the dental needs. They offer prophylaxes, fillings, and extractions to school children at a charge of fifty cents for each thing done.

Orthodontia and Malocclusion

The orthodontists are very cooperative in caring for the needy cases it is reported. If there is an outstanding malocclusion case and the family is in very moderate means, anyone of these dentists will take the case at a nominal fee.\(^1\)

\(^1\)Katherine Langford, "Clinic Service Program," A Survey of Mouth Hygiene Programs for School Children - Section II Cities of 150000 to 500000 Population, pp. 25-28.
CHAPTER VII

CONCLUSION

From this study the following conclusions have been reached that:

1. Mouth hygiene was found to be for healthful living. Healthful living is the very foundation for the right to the pursuit of happiness, prosperity, and success which should be the heritage of every child in America where public education is free.

2. The dental hygienist is of great value to the public school child. She bears the responsibility of putting within his reach the opportunity for the correction of defects and words to arouse his interest to take advantage of this opportunity.

3. The demand for dental instruction has increased as modern medical science has discovered that ill health in adult life is a result of improper care of teeth during childhood.

4. The interest of the children must be aroused before results are obtained.

5. The teacher has an opportunity to strive for the ultimate aim of all education: to fit the child for better living.
6. With the interest of the child properly stimulated and directed important results can be obtained.

7. The parents must be educated to the needs of mouth hygiene. The parent as the guardian of the child's physical well-being must be made, by very tactful means, to realize the importance of the care of the teeth.

8. Clinics which are available for the underprivileged should be made use of.

9. It is the duty of the public school to inform the parent about such clinics and to encourage him to accept the services of these clinics for his child.

10. Parents are more dental minded.

11. They are more alert to any change in the condition of their children's teeth.

12. They are more willing to have all defects corrected because they have received the advantages of the child's education.

15. The dental honor roll was a successful means of creating interest in mouth hygiene.

14. The awarding of stars and certificates proved a successful means of arousing interest and obtaining results, although such methods have been considered unsound by some modern educators.
Daily Report of Dental Hygienist

School ____________________________ Grade ____________________________

Date ____________________________

Routine examinations

Children with defective teeth

Children with no defect

Grades: A ____________________________ B ____________________________

C ____________________________ D ____________________________

Recommendation slips sent

Parents present

Children needing prophylaxis

Cavities (Deciduous ____________________________ Permanent ____________________________

Children with malocclusion

Children with defective gums

Children with abscesses

Children with mottled enamel

Individual inspections

Dental health talks

Dental films shown
<table>
<thead>
<tr>
<th>School Name</th>
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<th>1935-36</th>
<th>1936-37</th>
<th>1937-38</th>
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<td>71%</td>
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</tr>
<tr>
<td>San Jacinto</td>
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<tr>
<td>Sidney Lanier</td>
<td>24%</td>
<td>23%</td>
<td>23%</td>
<td>31%</td>
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</tr>
<tr>
<td>Stephen F. Austin</td>
<td>13%</td>
<td>30%</td>
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### Report of Dental Health Project for Four Year Period - continued

<table>
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<tr>
<th></th>
<th>1934-35</th>
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<tbody>
<tr>
<td>Stephen J. Hay</td>
<td>56%</td>
<td>79%</td>
<td>87%</td>
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<tr>
<td>T. G. Terry</td>
<td>22%</td>
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<tr>
<td>Thomas C. Hassell</td>
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<tr>
<td>Thomas J. Rusk</td>
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<tr>
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<tr>
<td>Vickery Place</td>
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<td>54%</td>
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<td>William B. Travis</td>
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<td>William Lipscomb</td>
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<tr>
<td>Winnetka</td>
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<tr>
<td><strong>Total White Elem.</strong></td>
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<td>55%</td>
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<tr>
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<tr>
<td>Eagle Ford</td>
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<tr>
<td>Fred Douglass</td>
<td>7%</td>
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<tr>
<td>J. P. Starks</td>
<td>6%</td>
<td>11%</td>
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<td>21%</td>
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</tr>
<tr>
<td>Julia C. Frazier</td>
<td>5%</td>
<td>6%</td>
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</tr>
<tr>
<td>Lincoln Manor</td>
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<td>Lisbon</td>
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<td>N. W. Harlee</td>
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<tr>
<td><strong>Total Colored Elem.</strong></td>
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<tr>
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</tbody>
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5/15-38

KATHERINE S. LANGFORD, D.H.
Instructor in Dental Hygiene
BIBLIOGRAPHY


Frankel, Ruth L., "Concerning the School Child's Teeth as It is Done in Philadelphia," Hygeia, American Medical Association, 535 North Dearborn St., Chicago, Ill., January, 1931.

Franzen, Raymond, Public Health Aspects of Dental Decay in Children, American Child Health Association, 370 Seventh Avenue, New York, N. Y., 1930.

Handbooks

A Handbook of Dental Health Education, No. 731, March 17, 1934.

A Survey of Mouth Hygiene Programs for School Children - Section II, Cities of 150,000 to 500,000 Population, Cleveland Child Health Association, 1928.


Bulletins

University of Iowa Extension Bulletin, University of Iowa City, Iowa, April 1, 1935 and March 6, 1937.

Personal Conferences

Crozier, N. R.  
Langford, Katherine  
Smith, Jessyee  
Wheeler, Louise