THE EFFECTIVENESS OF THE CONTRA COSTA COLLEGE DENTAL ASSISTING PROGRAM IN PREPARING ITS GRADUATES FOR EMPLOYMENT.

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The first five pages of this report are concerned with information obtained from dental assistants who were asked to evaluate the importance of duties they were expected to perform as a beginning dental assistant and also to evaluate the classroom emphasis placed on these skills. Part II reports the dentists' evaluation of the adequacy of the skills learned and the relative importance of these skills, along with other data on dental assistants. Part III of the report will deal with differences noted between the evaluations given by dentists and dental assistants and will also list conclusions that may be drawn from the data contained in parts I and II.

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RESEARCH & PLANNING
SAVES Project

REPORT ON DENTAL ASSISTING FROM
CONTRA COSTA COLLEGE DENTAL ASSISTANT STUDENTS

INTRODUCTION AND DATA GATHERING

In the last part of Spring Semester 1967 the students who had entered employment from, or enrolled in the Dental Assisting program during the school year 1963-64, 1964-65 and 1965-66 were mailed a questionnaire asking them for information about their employment and how adequately they thought they were prepared to enter the field of dental assisting.

A total of 42 students were on the initial list to be polled. Addresses could not be found for two students and three students had moved, leaving no forwarding address with the mailman or the dentist who had employed them. Replies were received from 32 of the 37 former students. The rate of return was 89%. This high percent of returns compares very favorably with most mail questionnaire surveys.

An interesting sidelight of this report is the fact that seven of the ten students that did not return the questionnaire, or for whom we had no address, attended Contra Costa College in 1963-64 and the other three attended in the following year. 100% of those enrolled in 1966-66 replied to our questionnaire. Apparently the farther back one goes, the less able he is to locate the students and the less willing they are to respond to questionnaires about their college and work experiences.
FINDINGS

One of the major findings of this research was that the dental assistants are not generally happy with the salary or job opportunities available to them as dental assistants. Data on working portions indicate:

1. Six of the thirty-two never worked as dental assistants.
2. 12 are presently not working in the dental profession. (This included those who are housewives). (37%)
3. 3 are enrolled in 4 year colleges (10%)
4. 15 are working with general practitioners.
5. Only 5 are working with specialists.

The salary range of the 26 respondents who worked as dental assistants was:

1. 9 (35%) received below $325 a month.
2. 8 (31%) received between $325-$350 a month.
3. 5 (19%) received between $376-$400 a month.
4. 4 (15%) received over $400.

None of the assistants, including those who had worked over two years, received over $450 a month. A telephone operator in Contra Costa County, with no previous experience, will receive $352 a month and will receive $376 a month at the end of two years. 65% of the dental assistants are presently paid less than a beginning telephone operator. This is particularly interesting in light of the fact that the dental assistants attended school for a complete year and have worked 6 months to 3 years to get approximately the same level of wages paid a telephone operator. Several of the respondents refer to the salary discrepancy between a skilled technician and an unskilled worker. This same problem of low pay may be a major problem in holding students in class. After all - why go to college for a full year just to start earning less than a beginning unskilled worker?
The lowest salary received was $265 a month, closely followed by $275 a month. The highest salary reported was between $426-$450 a month.

DUTIES EXPECTED TO PERFORM AS DENTAL ASSISTANTS

When the dental assistants ranked their duties in order of importance it was found that chairside assisting was considered, by far, the most important skill necessary while dental health education and emergency treatment were considered least important. X-ray skills were second in importance, while receptionists, bookkeeping and billing, and lab skills were in third, fourth and fifth positions of importance.

It is important to note that this part of the report does not deal with personal qualities, such as grooming and personality, but rather with technical skills that can be taught in the classroom.

EMPHASIS PLACED ON LEARNING

SPECIFIC SKILLS IN THE DENTAL ASSISTING PROGRAM

The students feel that the most emphasis on skills to be learned was placed on: 1, lab skills; 2, chairside assisting; 3, X-ray; 4, English usage; 5, dental health education; and 6, receptionist. Bookkeeping and billing, along with emergency treatment were rated last. Five students wrote in grooming and personal characteristics as being heavily stressed. The fact that the students wrote these responses in rather than checking a list indicates that grooming and personal characteristics probably received heavy emphasis in the course.

In examining which skills the dentists expect the dental assistant to be proficient in and the emphasis the students report as being given to the teaching of the various skills, some interesting patterns emerge. Chairside assisting is most important to the dentist and second in importance in classroom emphasis. The need for X-ray skills is ranked quite high by both dental assistants and classroom emphasis. However, the dental assistants indicate that lab skills are
considerably less important than the emphasis in class would indicate. Very likely this response is the result of the fact that the program is designed to provide a wide range of experiences for the students so that they would be capable of working in offices that require a great deal of laboratory work. Apparently few doctors today do much of their own laboratory work.

At the same time the students indicate a need for increased emphasis upon the duties of a receptionist and a bookkeeper. The emphasis in class and student experience indicate close agreement in the relative unimportance of emergency treatment and dental health education.

Over-all, there is no disharmony between what the students are taught and what the students are expected to do when they leave the classroom and enter the dentists' office.

**STUDENT OPINION OF THE STRENGTHS AND WEAKNESSES OF THE DENTAL ASSISTING PROGRAM**

Students were favorably impressed with what one might call "drill and practice in the basics." Also coming in for special mention was the breadth of training received and the appropriateness of training on-the-job in the dentists' offices.

The strengths of the program were clustered around the three characteristics described above while the weaknesses of the program was spread out over several problems. The fact that the perceived weaknesses are not clustered around a few points, but rather spread over several points, is an indication that students have no major criticism of the program. As an illustration, one student called for more breadth in presentation while another called for more specialization.

Several students indicated a greater need for more instruction in filling out some of the insurance claims and bookkeeping types of duties.
When asked if they would advise their best friend to attend Contra Costa College's Dental Assisting Program, 23 or 74% of those who answered indicated that they would advise such a course of action. Only five would send their friends to a private school that trains Dental Assistants in three months. These same students indicated that they would advise their friends to go to the private schools because there is no pay differential between a graduate of the 3 month school and a graduate of the year program at Contra Costa College. Eight students indicated they would advise their friends to try to get a dentist to train them because there is no real pay differential between graduates of the dental assisting program and other people working as dental assistants.

The theme of dissatisfaction over the low wages paid and the unwillingness of dentists to make a wage distinction between a professional dental assistant and a "walk-in" dental assistant, is constantly brought to one's attention as he reads the replies to the questions asked.

The dental assisting program appears to be adequately meeting the training needs of the dental assistant, as reported by dental assistants. Another report will examine the adequacy of the program in training dental assistants, as seen by the dentists. At the same time a look will be taken at the employment trends and wages paid - as reported by the dentists themselves.
PART II

REPORT ON DENTAL ASSISTING STUDENTS FROM DENTISTS OPERATING IN THE SERVICE AREA OF CONTRA COSTA COLLEGE

The purpose of this study was to determine the importance of specific dental assisting skills and how adequately the dentists think the graduates of the Dental Assisting program are trained. At the same time information on future openings for dental assistants was sought, along with information on salary conditions. An evaluation of the strengths and weaknesses of the dental assisting program was also requested from the dentists.

Frequent reference, for comparative purposes only, will be made to a similar study conducted in St. Louis in 1966. The St. Louis study was attempting to determine the feasibility of establishing a dental assisting program under the jurisdiction of the junior college district. The study is reported in the March 1967 issue of the Junior College Journal.

INTRODUCTION AND DATA GATHERING

In the latter part of Spring Semester 1967 a mailed questionnaire was sent out to the 93 dentists who have offices in the immediate service area. Dentists listed in the yellow pages of the telephone directory for Rodeo, Crockett, San Pablo, Richmond, El Cerrito and Albany were included in the mailing list. Replies were received from 66 or 71% of the dentists. Eight of the returns were either not filled out properly, the dentist was retired or deceased, or had moved out of the area. Consequently 58 replies were utilized in drawing up the data contained in this report. The results of the study are based on just over two-thirds of the practicing dentists in the service area. The St. Louis survey, financed under a Kellogg Grant, received a 29% return on
their questionnaire while the American Dental Association obtained a 22% return on a survey done in 1962 and also received as 32% reply to another mailed questionnaire in 1964. The high rate of return - more than double the best reported by the American Dental Association in 1964 - may be interpreted as an expression of interest in the dental assisting program by the dentists and may also be related to the number of follow-up letters written seeking cooperation.

**GENERAL FINDINGS**

Seventy-seven percent of the dentists classified themselves as being in general practice. The remaining 23 percent operate in the area of oral surgery, orthodontia, periodontia or pedodontia. The specialists generally train their dental assistants to the specialty involved while the general practitioner expects a graduate dental assistant to be generally competent and knowledgeable when she begins work.

Nearly one-half (40%) of the dentists employ only one dental assistant while another 42% employ two dental assistants. One large group of nine dentists collectively employ 28 ancillary aids - many of which are dental assistants. Generally speaking, dental assistants can expect to work in the office of a general practitioner who either employs one other dental assistant or who employs only one girl.

The complexity of the duties required to be performed by the dental assistant is directly related to number of people working in the office. The more people working the more specialized one may become and the less complex the duties are likely to be.

The dentists employ an average of 1.21 full time dental assistants. The St. Louis study reported 1.25 full time assistants per dentist. The data did
not indicate the proportion of part-time dental assistants employed. Because
the full-time employment pattern of St. Louis and Western Contra Costa County
is very similar we may assume that the part-time data is also quite similar.
St. Louis reports an average of 0.32 part-time dental assistants per dentist.
If there is error in the above assumption it is likely that Western Contra
Costa County dentists employ a slightly higher proportion of part-time dental
assistants since the number of full-time dental assistants is slightly lower
than the number of full-time assistants employed in St. Louis.

The dentists were asked to list, in order of importance, those duties
they expect a beginning dental assistant to perform. Chairside assisting is
considered by the dentists to be the most important duty of a dental assistant.
Chairside assisting was closely followed in importance by reception duties,
bookkeeping and billing and x-ray taking - in that order.

An analysis of the dentist's responses indicate that the importance of
bookkeeping and billing and reception duties varies widely with specific
dentists. This indicates that the manner in which the office is organized
determines the importance of these duties. If the office is a one-girl office
these duties become critical, while a two-girl office makes it possible to
hire a receptionist to take care of customer processing problems.

There was wide agreement on the relative importance of the four duties
discussed above, namely chairside assisting, receptionist, bookkeeping and
billing, and x-ray taking. There was also wide agreement on the relative
unimportance, when contrasted with the four most important duties, of corre-
spondence and filing, laboratory skills, dental health education, and emergency
treatment. These last four duties, listed in order of decreasing importance,
were generally not considered very critical to the performance of a dental
assistant. One cannot say these skills are not desired but rather they are
not as essential as chairside assisting, customer handling and x-ray taking.

Since the duties a dental assistant is expected to perform are likely to vary according to the number of ancillary aids employed in the office, it is possible that those dentists employing only one dental assistant would rank the importance of specific skills differently than dentists employing more than one girl in the office. In order to check this possibility, the replies of the 23 dentists, comprising 40% of the respondents, who employ only one dental assistant were pulled out and analyzed separately to see if any observable discrepancies occurred. The dentists in one girl offices agreed almost precisely with the total group of dentists on the relative importance of each of the eight skills. The only exceptions to these similar rankings was that the single-girl offices dentists placed receptionists duties first in importance with chairside assisting being second. These two positions were reversed by the results from the total group of dentists. These findings again confirm the conclusion that dentists are very concerned with the ability of dental assistants to process customers effectively and smoothly.

**WAGES**

The dentists report paying the following monthly wage scale for a beginning dental assistant:

1. below $275 - 3 (5%)
2. $275 - $300 - 27 (47%)
3. $301 - $325 - 18 (31%)
4. $326 - $350 - 6 (10%)
5. $351 - $375 - 3 (5%)
6. over $375 - 1 (2%)

Total 58 100%

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-9-
The most frequently paid salary for a beginning dental assistant is from $275 to $300 a month. Ninety three percent of the dentists pay under $351 a month. This is interesting in light of the fact that some of the dental assistants while in training at Contra Costa College leave the program to start as telephone operators in the Richmond office at the beginning salary of $352 a month. Other positions, such as a Clerk-Typist, will generally pay more than $350 a month for a beginning employee. Comparisons are difficult to make and may tend to be unfair, but the problem of a skilled worker entering the world of work at a lower rate of pay than do unskilled or semi-skilled workers, demands consideration.

Fifty percent of the dentists reported that they pay as much to a person they train themselves as they do to a dental assistant that has completed a course in dental assisting. The other half of the dentists pay a differential to trained Dental Assistants of $25 to $50 a month with $25 being the usual increment offered.

There are probably several reasons for the dentists desiring older dental assistants. Among these reasons would be such things as maturity, stability, less likely to have family problems interfere with work and better able to cope with patients.

It is quite likely that the dental assistants salary is directly related to the age of particular dental assistants.

EVALUATION OF ADEQUACY OF TRAINING GIVEN TO DENTAL ASSISTANTS

AT CONTRA COSTA COLLEGE

Thirty-four or 59% of the dentists reported having employed dental assistants that had been trained at Contra Costa College. These dentists were then asked to evaluate the skills of the students at the time of hiring in
the following areas: English usage, Receptionist's duties, Bookkeeping and billing, Correspondence and filing, X-ray procedure, Chairside assisting, Laboratory skills, Dental Health Education, Emergency treatment, and other skills they might want to specify.

The dentists, on a scale of 1 through 5 (with 1 representing excellent, 2 representing average and 5 representing inadequate) gave the following average ratings to each of the areas:

<table>
<thead>
<tr>
<th>Area</th>
<th>Average Score</th>
<th>Importance of duties by Rank</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. English usage</td>
<td>2.66</td>
<td>*</td>
</tr>
<tr>
<td>2. Receptionist's duties</td>
<td>2.57</td>
<td>2</td>
</tr>
<tr>
<td>3. Bookkeeping and billing</td>
<td>3.00</td>
<td>3</td>
</tr>
<tr>
<td>4. Correspondence and filing</td>
<td>3.00</td>
<td>5</td>
</tr>
<tr>
<td>5. X-ray procedure</td>
<td>2.60</td>
<td>4</td>
</tr>
<tr>
<td>6. Chairside assisting</td>
<td>2.03</td>
<td>1</td>
</tr>
<tr>
<td>7. Laboratory skills</td>
<td>3.15</td>
<td>6</td>
</tr>
<tr>
<td>8. Dental health education</td>
<td>2.50</td>
<td>7</td>
</tr>
<tr>
<td>9. Emergency treatment</td>
<td>3.17</td>
<td>8</td>
</tr>
</tbody>
</table>

Total average score: 2.74

*English skills were not ranked in order of importance for a beginning dental assistant by the dentists.

**AGE**

The dentists, when asked what age they would prefer a beginning dental assistant to be, replied as follows:

<table>
<thead>
<tr>
<th>Age Range</th>
<th>Number</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>18-20 years old</td>
<td>7</td>
<td>(13%)</td>
</tr>
<tr>
<td>21-25 years old</td>
<td>26</td>
<td>(47%)</td>
</tr>
<tr>
<td>26-30 years old</td>
<td>11</td>
<td>(20%)</td>
</tr>
<tr>
<td>31-35 years old</td>
<td>7</td>
<td>(13%)</td>
</tr>
<tr>
<td>Over 35 years</td>
<td>4</td>
<td>(7%)</td>
</tr>
<tr>
<td>Total</td>
<td>55</td>
<td>100%</td>
</tr>
</tbody>
</table>
Most of the graduates of the Contra Costa College dental assisting program fall in the 18-20 years old category. As the above information indicates only 13 percent of the dentists prefer this age group. Nearly 70% of the dentists prefer the ages of 21-25 and 26-30 as their first choice for beginning dental assistants.

When asked what age they would prefer when hiring an experienced dental assistant the dentists indicated:

1. 18-20 years old - 0 (0%)
2. 21-25 years old - 11 (20%)
3. 26-30 years old - 16 (30%)
4. 31-35 years old - 19 (35%)
5. over 35 years old- 8 (15%)

Total 54 100%

The above information further substantiates the idea that the dentists are very interested in hiring dental assistants that are older than the ones which generally graduate out of the dental assistant training program at Contra Costa College. Differences in the total number of dentists responding to this part of the questionnaire is explained by the fact that not every dentist answered every question.

As indicated in the above table the dentists gave all but two areas a 3.00 or higher score. This means that the dentists feel that skills the girls brought into the hiring situation were average or above average.

It is particularly interesting that chairside assisting received the best score and also is the skill considered most important to the dentists.

An interesting difference appears when the evaluation of receptionists and bookkeeping and billing skills are examined in light of the importance ascribed to them by the dentists. The dentists gave above average scores
to receptionists skills and average rating to the bookkeeping and billing skills while they evaluated their importance as being second and third, after chairside assisting. It would appear that the handling of customers is very important to the dentists and that the classroom emphasis is not heavy enough to meet the desires of the dentists.

It must be kept in mind that the scores given the girls' skills by the dentists are as likely to represent the quality of the girls taking the dental assisting course as the quality of instruction that the girl receives while enrolled in the course.

The frequent mention of the desire for older more mature and stable dental assistants bears out the concern the dentists have over how customers are handled. Since the age of the girls enrolling in the dental assisting program is hard to change it might be worthwhile exploring the possibility of increasing the emphasis on customer handling in order to compensate for the youth of the graduating dental assistants.

Another interesting difference appears when we examine laboratory skills. The dentists score our students slightly below average in this area. Though this may initially appear to be a major problem it must be interpreted in light of the fact that dentists and dental assistants do not rate this skill to be nearly as important as most of the other skills.

REPORTED STRENGTHS AND WEAKNESSES OF THE DENTAL ASSISTING PROGRAM

Perhaps the major strength of the program is indicated by the fact that nearly one-half of the dentists who hired graduates from the Contra Costa College Dental assisting program commented on the comprehensive or breadth of training given. The dentists gave indication that most of the girls come to the job with the type of professional attitude that is desirable. The
adequacy of skills learned as chairside assistants has already been noted but is worthy of being mentioned again.

When requesting an evaluation of a program one is likely to receive a few highly complimentary remarks and a few highly uncomplimentary remarks. Such was the situation in this case. This author feels that unless there is a series of similar comments, a single complimentary or uncomplimentary comment may be relevant for the dentist, or dental assistant, but irrelevant regarding the general preparation and training of the dental assistants. This report, therefore deals only with major observable trends.

The greatest weaknesses of the dental assisting program, as indicated by the dentists, seem to center around customer handling, age, completion of insurance forms, bookkeeping, and personality screening of potential dental assistants. Each of these problems will be considered separately though there are apparent interrelations among the problem areas. For instance, the concept of maturity involves how one treats customers, age and stability of personality.

As has been cited earlier in this paper, the dentists are very concerned with how well the dental assistants work with the customers. The receptionist's duties are number two in importance to the dentists while the dental assistants do not see this duty as being nearly that important. It is important to note this type of difference of opinion can result in the dentist being seriously dissatisfied with the dental assistant and the dental assistant feeling rather confused or upset about the dentist's expectations.

There is little the college can do about training older, more stable dental assistants. Older women quickly recognize that they can go to work in many other jobs that do not require a year of training and still receive as much or more money for their labor. If a genuine pay differential was given by the dentists for both training and for age it would help the college
recruit the type of dental assistants the dentists say they want. Until modifications are made in the pay scales there is little likelihood that the college will be able to recruit older dental assistants.

Some dentists felt that better screening before letting girls into the program might provide a more mature and tactful person. The comments of the dentists were centered around the need for the dental assistants to demonstrate more tact and consideration for the customers. This problem may be reflected in the general immaturity of 18-20 year old girls and also may be part of the reason why the dentists are so decidedly interested in getting older, more mature, dental assistants.

A constant need for increased classroom emphasis on bookkeeping and billing has been expressed by dental assistants and the dentists. Of particular concern is the ability to fill out the many insurance forms for the patients.
PART III

SYNOPSIS AND CONCLUSIONS

This paper has dealt with four different reports on dental assisting: (1) the importance of various duties that beginning dental assistants were expected to perform as reported by dental assistants, (2) the emphasis these skills received in the classroom as reported by dental assistants, (3) the importance of the various skills as reported by practicing dentists, (4) the dentist's evaluation of how adequately graduates from Contra Costa College were trained in the required skills.

Several differences between the perceptions reported by dentists and dental assistants are found upon examination of the data in a comparative manner.

The role of laboratory skills in the dentist's office is quite different than the emphasis reported placed on this skill in the training program. The dentists and dental assistants both agree that laboratory skills are sixth and fifth in importance, respectively. However, the students report that laboratory skills received the highest emphasis in the classroom. At the same time the dentist indicated that the laboratory skills demonstrated by the dental assistants was slightly below average.

It is not the purpose of this paper to conjecture on why these discrepancies appear. The facts are reported in order that conclusions about what is taught can be based on objective data. No attempt is made to evaluate how a particular skill is taught but if the report given by the dental assistants is accepted as factual then the faculty and administration need to re-examine the classroom emphasis placed on laboratory skills.

Another difference is noted when examining the importance of the customer processing skills of receptionist and bookkeeping and billing. The
dental assistants ranked these skills in positions six and seven of emphasis in the training program but ranked them in positions third and fourth in importance of those skills expected of them as a beginning dental assistant. The dentists rank these same skills as being second and third in importance. Clearly the dentists and students place these skills higher in priority than the reported emphasis in the training program. This conclusion is substantiated by both students and dentists asking for more instruction in completing insurance forms, and by the dentists asking for older more mature women who can work more effectively in the customer processing areas.

X-ray skills are considered less important to the dentist than they are to the dental assistants. The dentists rank x-ray skills as being fourth in importance while the dental assistants place it in the number two spot. The classroom emphasis indicates x-ray skills were third in the amount of emphasis given. The fact that x-ray skills are technical in nature and help the dental assistant feel she has a specific skill could account for her perception of the relative importance of this skill.

In light of the results from the returns from the two questionnaires sent out to dental assistants from Contra Costa College and from the dentists in the immediate service area the following conclusions appear justified:

1. The St. Louis study indicated that the college should be able to train one-half of the dental assistants that are hired in the service area. Keeping this in mind, along with the number of replacements indicated, it is quite likely that Contra Costa College could fill 27 of the approximately 54 positions that will be open in the service area in the next year. The number of graduates is usually about one-fourth of the total number of positions available or one-half of those that could be filled by graduates.
On the basis of this information, and the fact that the St. Louis study indicated that 77% of the dentists prefer program trained assistants, it seems appropriate to conclude that the size of the graduating class could be doubled without flooding the labor market.

2. A re-evaluation of the classroom emphasis placed on laboratory work is desirable.

3. A re-evaluation of the classroom emphasis on filling out insurance forms and increasing general bookkeeping and billing skills is desirable.

4. A re-evaluation of the classroom emphasis on receptionists duties and skills, including tactful handling of customers, is desirable.

5. Dentists desire older, more mature, dental assistants.

6. Dentists do not pay high enough salaries to make dental assisting an attractive profession financially.

7. Dentists can help Contra Costa College recruit older, more mature, dental assistants by offering a pay differential between dental assistants trained by the college and dental assistants trained by the dentist, and by providing an additional pay differential for age. The differential must be high enough to make it worthwhile for the student to lose a year of employment while in training.
8. The graduates of the Contra Costa College dental assisting program, in spite of any problems mentioned above, are generally pleased with the training received in the program.

9. The dentists who hire the graduates of the dental assisting program, in spite of the problems indicated above, are generally pleased with the skills demonstrated by the graduates.