

AD-A073 755

ACADEMY OF HEALTH SCIENCES (ARMY) FORT SAM HOUSTON TX--ETC F/G 6/5
CURRENT DENTAL OFFICER PRACTICE AND UTILIZATION IN THE US ARMY.(U)
JUN 79 W A PARKER, R V MAYOTTE

UNCLASSIFIED

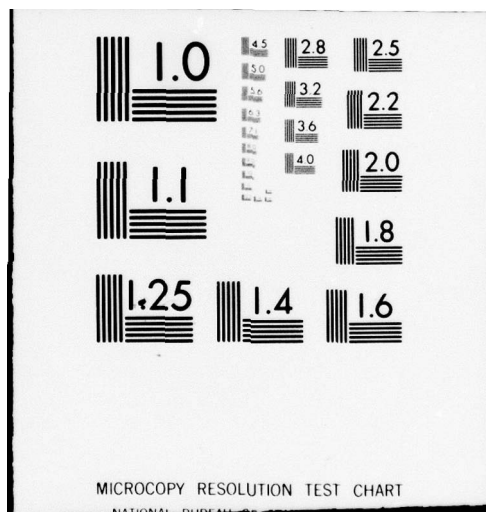
HCSD-79-005

NL

| OF |
ADA
073755



END
DATE
FILMED
10 -79
DDC



Report HCSD-79-005

AD A 073755

2
LEVEL

CURRENT DENTAL OFFICER PRACTICE AND UTILIZATION IN THE US ARMY

10
COL Warren A. Parker, DC, US Army
LTC Richard V. Mayotte, DC, US Army
Health Care Studies Division
Academy of Health Sciences, US Army
Fort Sam Houston, Texas 78234

11
June 1979

12 37p.
Final Report

15 Jan - 1 Jun 79

DDC

SEP 12 1979

A

DDC FILE COPY

Prepared for:

UNITED STATES ARMY HEALTH SERVICES COMMAND (HSDS)
Fort Sam Houston, Texas 78234

DISTRIBUTION STATEMENT A

Approved for public release
Distribution Unlimited

448688

79 09 12 038

ACKNOWLEDGEMENTS

The authors wish to express their appreciation to CPT T. Rauch, MSC and A. D. Mangelsdorff, Ph.D., for their assistance in computer programming and data analysis. We also wish to thank Patricia Gilbert, Betty Hanson, and SP5 Dorothy Penn for their efforts in preparing and proofreading the tables and manuscript.

Accession For	
NTIS GRA&I	☒
DDC TAB	☐
Unannounced	☐
Justification	
By _____	
Distribution/	
Availability Codes	
Dist.	Avail and/or special
A	

NOTICE

The findings in this report are not to be construed as an official Department of the Army position unless so designated by other authorized documents.

Regular users of the services of the Defense Documentation Center (Per DOD Instruction 5200.21) may order directly from the following:

Defense Documentation Center (DDC)
ATTN: DDC-TSR
Cameron Station
Alexandria, VA 22314

Telephones: AUTOVON (108) 28-47633, 34, or 35
IDS 107-47633, 34, or 35
Commercial (202) 27-47633, 34, or 35

All other requests for these reports will be directed to the following:

US Department of Commerce
National Technical Information Services (NTIS)
5285 Port Royal Road
Springfield, VA 22161

Telephone: Commercial (703) 557-4650

SECURITY CLASSIFICATION OF THIS PAGE (When Data Entered)

REPORT DOCUMENTATION PAGE		READ INSTRUCTIONS BEFORE COMPLETING FORM
1. REPORT NUMBER HCSD-79-005	2. GOVT ACCESSION NO.	3. RECIPIENT'S CATALOG NUMBER
4. TITLE (and Subtitle) CURRENT DENTAL OFFICER PRACTICE AND UTILIZATION IN THE US ARMY		5. TYPE OF REPORT & PERIOD COVERED Final Report 15 Jan 79 - 1 Jun 79
		6. PERFORMING ORG. REPORT NUMBER
7. AUTHOR(s) COL Warren A. Parker, DC, US Army LTC Richard V. Mayotte, DC, US Army		8. CONTRACT OR GRANT NUMBER(s)
9. PERFORMING ORGANIZATION NAME AND ADDRESS Health Care Studies Division (HSA-CHC) Academy of Health Sciences, US Army Fort Sam Houston, Texas 78234		10. PROGRAM ELEMENT, PROJECT, TASK AREA & WORK UNIT NUMBERS
11. CONTROLLING OFFICE NAME AND ADDRESS Headquarters Health Services Command, US Army (HSDS-P) Fort Sam Houston, Texas 78234		12. REPORT DATE June 1979
14. MONITORING AGENCY NAME & ADDRESS (if different from Controlling Office)		13. NUMBER OF PAGES 25
		15. SECURITY CLASS. (of this report) Unclassified
		15a. DECLASSIFICATION/DOWNGRADING SCHEDULE
16. DISTRIBUTION STATEMENT (of this Report) Unlimited distribution.		
17. DISTRIBUTION STATEMENT (of the abstract entered in Block 20, if different from Report)		
18. SUPPLEMENTARY NOTES		
19. KEY WORDS (Continue on reverse side if necessary and identify by block number) Dental, direct patient care, indirect patient care, continuing education, management, utilization, general practitioner, specialist.		
20. ABSTRACT (Continue on reverse side if necessary and identify by block number) ☒ The proportion of the normal duty day devoted to direct and indirect patient care, continuing education, other duties, and absences by Army dental officers who are mentors, residents, or non-teaching specialists has been determined in an earlier study. Not known was this same information about Army dental officers who are full time clinicians. A survey was made among Army dentists of all ranks at ten different Army installations to determine this information. One hundred dentists submitted four weeks of data each. They noted the hours		

during both the normal duty day and outside normal duty hours devoted to the various duty categories mentioned above. Results showed that Army dentists whose duty is full time clinician spent between 69 and 78 percent of their average work week providing direct patient care. Indirect patient care accounted for between 6 and 10 percent of their time during normal duty hours, and continuing education pursuits accounted for less than 2 percent of the normal duty week. The results of the study also indicated that Army dentists spend about four hours per week outside normal duty hours on duties related to their work, and that two-thirds of this time is for continuing education.

SUMMARY

The relative amount of time spent in various professional as well as military job-related pursuits by the Army dental officer who is a full time clinician has never been measured. A recent study by Health Care Studies Division made these determinations for mentors, residents, and non-teaching specialists. The purpose of this study was to determine the distribution, by job category, of the duty time and non-duty time devoted to job-related activities for both specialists and non-specialists who are engaged in full time clinical practice.

The objectives of this study were two fold: (1) to determine the amount and percentage of normal duty hours spent in direct patient care, indirect patient care, continuing education, other duties, and absences; (2) to determine the amount of after-duty hours spent in direct patient care, indirect patient care, and continuing education. The dental services of ten Dental Activities (DENTAC) including those services at two Medical Centers (MEDCEN) participated in the study. They were selected to represent large, medium, and small installations and to include dental services which provide support to a representative sample of Army missions.

A survey instrument was developed specifically for this study and distributed along with specific instructions and definitions of various duty categories to project monitors at the study sites. Data was submitted by one hundred dental officers on a weekly basis for four consecutive weeks. The data obtained are reliable at the 95% level of confidence. Distributions of the relative amounts of time expended by the participants in each of the duty categories during normal duty hours and outside normal duty hours are provided. Analysis of variance (ANOVA) was performed to determine whether there were differences between the ranks. Duncan's Multiple Range Procedures were also performed when there were significant F ratios to determine where the differences might be found.

Analysis of the data indicated that Army dentists, regardless of rank, who are full time clinicians spend between 69 percent and 78 percent of their normal duty day providing direct patient care. Indirect patient care such as laboratory work, writing up records, and consultations with other doctors consumes between 6 percent and 10 percent of the normal work week. Continuing education to enhance the dentists' professional competence takes up a very small amount of the average work week. The study showed that Army dentists obtain their continuing education credits primarily on their personal time. The study also showed that Army dental general practitioners spend an average of about 4 hours per week on professional activities related to their work.

TABLE OF CONTENTS

<u>SECTION</u>	<u>PAGE</u>
SUMMARY	iii
TABLE OF CONTENTS	iv
LIST OF TABLES.	vi
LIST OF APPENDICES.	vii
1. INTRODUCTION.	1
a. Purpose	1
b. Background.	1
2. OBJECTIVES.	2
3. METHODOLOGY	2
a. Overview.	2
b. Sample.	2
c. Data Collection	2
4. FINDINGS.	3
a. Sample Characteristics.	3
b. Distribution Characteristics.	3
c. Reliability of Data	3
d. Number Of Hours Expended In Various Duty Categories During Normal Duty Hours.	3
e. Number Of Hours Expended In Various Duty Categories Outside Normal Duty Hours	4
5. DISCUSSION.	4
a. Sample Characteristisc.	4
b. Hours Expended In Various Dury Categories During Normal Duty Hours	4

TABLE OF CONTENTS (cont)

<u>SECTION</u>	<u>PAGE</u>
6. CONCLUSIONS.	6
7. RECOMMENDATIONS.	7
8. REFERENCES	7
9. TABLES	9
10. APPENDIX A: Data Collection Form.	21
11. APPENDIX B: Directions For Completion of Data Collection Form .	22
12. DISTRIBUTION LIST.	25

TABLES

<u>TABLE</u>	<u>PAGE</u>
1 RANK PROFILE.	9
2 YEARS ACTIVE DUTY PROFILE	10
3 NINETY-FIVE PERCENT CONFIDENCE INTERVALS FOR VARIOUS DUTY CATEGORIES DURING NORMAL DUTY HOURS	11
4 NINETY-FIVE PERCENT CONFIDENCE INTERVALS FOR VARIOUS DUTY CATEGORIES OUTSIDE NORMAL DUTY HOURS.	12
5 HOURS EXPENDED PER WEEK IN VARIOUS DUTY CATEGORIES DURING NORMAL DUTY HOURS, DESCRIPTIVE STATISTICS	13
6 HOURS EXPENDED PER WEEK IN VARIOUS DUTY CATEGORIES OUTSIDE NORMAL DUTY HOURS, DESCRIPTIVE STATISTICS	14
7 HOURS EXPENDED PER WEEK IN VARIOUS DUTY CATEGORIES DURING NORMAL DUTY HOURS, SIGNIFICANCE TABLE	15
8 HOURS EXPENDED PER WEEK IN VARIOUS DUTY CATEGORIES OUTSIDE NORMAL DUTY HOURS, SIGNIFICANCE TABLE	16
9 PERCENT OF 40 HOUR WEEK EXPENDED IN VARIOUS DUTY CATEGORIES, BY RANK	17
10 HOURS EXPENDED IN VARIOUS DUTY CATEGORIES DURING NORMAL DUTY HOURS, BY RANK	18
11 HOURS EXPENDED IN VARIOUS DUTY CATEGORIES OUTSIDE NORMAL DUTY HOURS, BY RANK	19

LIST OF APPENDICES

<u>APPENDIX</u>	<u>PAGE</u>
A DATA COLLECTION FORM.	21
B DIRECTIONS FOR COMPLETION OF DATA COLLECTION FORM	22

CURRENT DENTAL OFFICER PRACTICE AND UTILIZATION IN THE US ARMY

1. INTRODUCTION.

a. Purpose.

(1) The purpose of this study was to determine the distribution by category, of the duty time and non-duty time devoted to job related activities for non-teaching and non-student Army dentists, both specialist and general practitioner who are engaged in full time clinical practice.

(2) This information will be useful to the Assistant Surgeon General for Dental Services, Office of the Surgeon General, Department of the Army, and Directorate of Dental Services, US Army Health Services Command, in formulating decisions concerning staffing guides for dental units at the installation level, in the development of management and utilization policies for operation of the Army dental care system, and in the evaluation and management of dental officer continuing education programs.

b. Background.

(1) A recent Health Care Studies Division effort determined the relative amount of time spent in direct patient care, indirect patient care, teaching/continuing education duties, absences, and other duties by Army dental officer mentors (teachers), residents, and non-teaching specialists.¹ The data collection for this study was provided exclusively by dental specialists. No data was collected from general duty dental officers. Such data would give a more complete description of time utilization by all dentists within the Army stationed at large, medium, and small installations and medical centers.

(2) A report of the Defense Audit Service² stated that Army dentists spent two minutes more per dental procedure than did Navy and Air Force dentists, the inference being that Army dentists were less productive. The report also stated that all military dentists taken together devoted only 50 percent of their duty week to direct patient care.

(3) As a result of such reporting, the Chief of the Army Dental Care System issued a policy letter which directed that certain duties not directly related to direct patient care be conducted outside normal duty hours, and³ that every effort be made to increase the productivity of the Army dentist.

(4) A breakdown of the amount of time spent by non-teaching dental officers in various categories of their duties is presently unknown. It became vital to determine the amount of time spent by Army dentists during and outside normal duty hours in direct patient care, indirect patient care, continuing education, and other duties, so that senior dental officers can better evaluate their policies in the utilization of assigned staff. Such information is also important to aid in the assessment of other outside studies and to evaluate compliance with internal policy statements.

2. OBJECTIVES.

The objectives of this study were:

a. To determine the amount and percentage of normal duty hours spent in direct patient care, indirect patient care, continuing education, other duties, and absences.

b. To determine the amount of after-duty hours spent in direct patient care, indirect patient care, continuing education, and total hours spent in these pursuits outside normal duty hours on a weekly basis.

3. METHODOLOGY.

a. Overview.

The data were obtained by means of a survey conducted at ten Army Dental Activities (DENTAC) of various sizes located across the continental United States. Included in this group were the dental services at two Army medical centers (MEDCEN). The data collection phase extended over a four week period in which there were no legal holidays or other scheduled non-duty days occurring during the normal work week. A data collection form was devised for use by the participants on a weekly basis. The forms were submitted at the end of each weekly period to Health Care Studies Division (HCSD) where data analysis was performed.

b. Sample.

(1) The population sample was comprised of dental officers, regardless of rank or years of active duty, who were engaged in full time clinical practice, and were not participating in a teaching program either as a mentor or as a student. The dental services at ten installations (including two MEDCENS) were involved in data collection in order to obtain a valid representation of services by size and type of installation supported. Four rank groups were designated as primary sub-populations for data analysis in addition to the undivided population. The groups were defined as follows:

- Group 3 - Captains (03)
- Group 4 - Majors (04)
- Group 5 - Lieutenant Colonels (05)
- Group 6 - Colonels (06)

(2) No specific target was set for the number of participants except to insure that the sample was a sufficiently large number upon which to base statistically valid analyses. One hundred forty four dentists participated, but data analysis and comparisons were based upon data submitted by one hundred dentists since the remainder omitted a vital demographic element (rank).

c. Data Collection.

Data collection was monitored by a responsible individual at each study site. It was this person's responsibility to insure that the data sheets were filled out correctly and completely. It was also their responsibility to

see that all participants were involved in all four weeks of data collection and that participants were apprised of the importance of accurate data input. A copy of the data collection form and instructions are at Appendices A and B. The data collection form contained ten test-related entries along with administrative and demographic data.

4. FINDINGS.

a. Sample Characteristics.

(1) A total of 100 dental officers, all full time clinicians, comprise the data base for this study, each submitting four weeks of data.

(2) The distribution of the sample among the rank groups is found in Table 1. Rank Group 3 (Captains) comprise the largest group (59 persons) while Rank Group 6 (Colonels) comprise the smallest group (6 persons).

(3) Length of active duty was considered (at Table 2). However, time-in-service is commensurate with rank, and so it was not used as a variable for analysis of the data.

b. Distribution Characteristics.

(1) The distributions of all of the variables except for Direct Patient Care outside normal duty hours are positively skewed. All have a mode of zero. Such distributions do not fit the normal (bell-shaped) curve, and therefore the mean, median, and standard deviation are not the most appropriate descriptors for such distributions. Despite this limitation the mean is the most understandable descriptor and bears greatest relevance to the reader, thus it is used in the tables.

(2) Percentage distributions provide meaningful statistics for each of the duty category variables.

c. Reliability of Data.

Data reliability was determined by using the standard error of the mean to calculate the 95 percent confidence intervals for each variable ($\bar{x} \pm 2$ standard errors). The 95 percent confidence intervals establish ranges within which the means of subsequent samples from similar populations are expected to fall 95 percent of the time. Tables 3 and 4 present this data for normal duty hours and other than normal duty hours.

Descriptive statistics, including the mean, median, mode, range, standard deviation, and standard error of the mean are presented for both duty hours and non-duty hours in Tables 5 and 6.

d. Number of Hours Expended in Various Duty Categories During Normal Duty Hours.

A comparison of means and variances was made to determine whether differences existed between the rank groups. If the F ratio was significant

then the Duncan's Multiple Range procedure was used to determine where the differences might be found. ANOVA procedures revealed the following results as described in Table 7:

(1) Direct Patient Care. ANOVA revealed a significant F ratio ($df = 3/395$, $p = .016$). The Duncan Multiple Range Procedure ($p < .05$) demonstrated no significant differences between cell means.

(2) Indirect Patient Care. ANOVA revealed a non-significant F ratio ($df = 3/395$, $p = .13$).

(3) Continuing Education. ANOVA revealed a non-significant F ratio ($df = 3/395$, $p = .44$).

(4) Other Duties. ANOVA revealed a significant F ratio ($df = 3/395$, $p = .002$). The Duncan Multiple Range Procedure ($p < .05$) demonstrated that Rank Group 3 scored significantly lower in this category than Rank Groups 5 and 6.

(5) Absences. ANOVA revealed a non-significant F ratio ($df = 3/395$, $p = .07$).

e. Number of Hours Expended in Various Duty Categories Outside Normal Duty Hours.

The same test criteria were applied to these variables as in 4d above. Results are presented in Table 8.

(1) Direct Patient Care. ANOVA revealed a significant F ratio ($df = 3/396$, $p = .04$). The Duncan Multiple Range Procedure ($p < .05$) revealed that Rank Group 6 scored significantly lower in this category than Rank Group 5.

5. DISCUSSION.

a. Sample Characteristics.

The size of the study sample comprises about 5.7 percent of the Army Dental Corps commissioned officer strength. The sample size of 100 is statistically large enough ($N > 30$) upon which to make reasonably sound statements, and in fact a larger data base of 144 did not significantly alter any of the overall study results. The larger sample was not used for data analysis because some of the respondents did not report their rank. The distribution of the rank groups as shown in Table 1 compares favorably with the actual distribution in the Army Dental Corps for Majors and Lieutenant Colonels. The proportion of Captains in the study sample is larger than that of the Army Dental Corps and that for Colonels is smaller.

b. Hours Expended In Various Duty Categories During Normal Duty Hours.

Summary results in percent and in mean hours expended in direct patient care, indirect patient care, continuing education, other duties, and absences are presented in Tables 9 and 10 respectively.

(1) Direct Patient Care.

There has been concern that Army dentists have so many military and other administrative requirements thrust upon them that they can devote no more than 50 percent of their working hours to direct patient care. The results of this study have shown that the respondents spent a minimum of 69 percent for Colonels (Group 6) up to a maximum of 78 percent for Captains (Group 3) of their duty day in direct patient care. Some of the duties which were defined as indirect care in this study were considered to be direct care in other outside studies, and so would make the direct care totals even greater if similarly defined in this study.

(2) Continuing Education.

It is the stated policy of the Army Dental Care System that every dental officer take a minimum of 30 hours of continuing education annually. It is also policy that most of these hours be taken during other than normal duty hours. The results of this study showed that Captains, Majors and Lieutenant Colonels spend less than two percent of their duty week in continuing education pursuits. This amounts to about three-fourths of one hour per 40 hour week. Colonels reported that they spent about four percent of their duty week on continuing education duties. There were no significant differences among the rank groups ($p < .05$) for continuing education.

(3) Other Duties.

Military duties not associated with direct patient care, attendance at administrative or clinic meetings, performance of administrative duties, and physical training are some of the duties included in this category. It has been assumed that as dental officers achieve higher rank, they must devote more time to these other duties. The study results confirmed this assumption. Captains spent significantly less time on other duties than both Lieutenant Colonels and Colonels, and Majors were involved in these duties significantly less than Colonels ($p < .05$).

(4) Indirect Patient Care.

This duty category includes such functions as dental laboratory procedures, consultation with another doctor when the patient is not present, and assisting another doctor in direct patient care. The time devoted to this care category ranged from 6 percent for Majors to 10 percent of the work week for Colonels. There were no significant differences in these values among the rank groups ($p < .05$).

(5) Absences.

This category includes all types of leaves, passes, medical and dental appointments, and temporary duty away from the individual's normal duty station which is not associated with self-improvement as a dentist. Colonels (Group 6) reported being absent 6 percent of the time, while Majors

(Group 4) were away 16 percent of the time. However, statistical analyses showed that there were no significant differences between the rank groups ($p < .05$).

c. Hours Expended In Various Duty Categories Outside Normal Duty Hours.

(1) Direct Patient Care.

Since the more junior dentists normally are assigned emergency care duties to cover those periods when dental clinics are not fully staffed it would be expected that they report more hours devoted to direct care outside normal duty hours. The study results did not show this however. The only significant difference was between Colonels and Lieutenant Colonels since the former reported no time outside normal duty hours for direct patient care. There were no significant differences reported between Captains, Majors and Lieutenant Colonels. But several Lieutenant Colonels reported many hours spent in preparation for specialty board examinations, and this undoubtedly inflated their total for this category. The mean hours per week reported by Captains and Majors were not large, but the magnitude of the effect was minimal.

(2) Indirect Patient Care.

Lieutenant Colonels (Group 5) again reported a high figure for this category outside normal duty hours. The most plausible explanation is that those individuals preparing for specialty board examinations spent many hours of their personal time on those preparations. Except for dental laboratory work the other tasks defined as indirect care would rarely be performed at times other than normal duty hours.

(3) Continuing Education.

Since it is expected that dental officers obtain their continuing education credits outside normal duty hours, it was not surprising that the overall mean was 2.65 hours per week outside duty hours as compared to only .72 hours during normal duty hours. Captains reported significantly fewer hours than did Majors, Lieutenant Colonels, and Colonels among whom there were no differences. Reasons for the fewer hours reported by Captains are not apparent.

(4) Total Hours per Week Devoted to Job-related Duties.

The population sample reported an additional 4.01 hours per week devoted to direct and indirect patient care, and to continuing education pursuits. Two-thirds of this time is for continuing education and about 14 percent of the extracurricular hours are spent providing direct dental care to patients.

6. CONCLUSIONS.

a. Army dentists, regardless of rank and whose duty is full time clinician, spend more than approximately three-fourths of their normal duty week providing direct dental care to patients.

b. Indirect patient care and other non-dental related duties comprise a relatively small part of Army dental officers' potential productive time.

c. Army dental officers are actively involved in continuing dental education, and this is being pursued mainly on the officers' own time rather than during duty hours.

7. RECOMMENDATIONS.

a. The results of this report should be made available to DENTAC commanders as well as higher command and policy level managers.

b. Similar surveys should be conducted every two to three years to monitor compliance with the Office of the Surgeon General policies on increasing direct patient care, on continuing education, and other policies to promote effectiveness within the Army dental care system.

8. REFERENCES.

1. Comparison of Dental Care Delivery By Dental Mentors (Teachers), Dental Residents, and Non-Teaching Dental Specialists. HCSD Report 77-005, Health Care Studies Division, Academy of Health Sciences, November 1977.

2. Draft Report on the Review of DOD Dental Care Programs. Project 7 FM-131, Defense Audit Service, October 1977.

3. Letter, DASG-DCA, 10 March 1978, Subject: Productivity Guidance Statements.

TABLES

TABLE 1
RANK PROFILE

<u>RANK</u>	<u>ABSOLUTE FREQUENCY</u>	<u>ADJUSTED FREQUENCY (PCT)</u>	<u>CUMULATIVE FREQUENCY (PCT)</u>
CAPTAINS (Group 3)	59	59	59
MAJORS (Group 4)	18	18	77
LIEUTENANT COLONELS (Group 5)	17	17	94
COLONELS (Group 6)	6	6	100

N = 100

TABLE 2
YEARS ACTIVE DUTY PROFILE

<u>YEARS ACTIVE DUTY</u>	<u>ABSOLUTE FREQUENCY</u>	<u>ADJUSTED FREQUENCY (PCT)</u>	<u>CUMULATIVE FREQUENCY (PCT)</u>
0-3	57	57	57
4-6	15	15	72
7-12	11	11	83
13-20	15	15	98
MORE THAN 20	2	2	100

N = 100

TABLE 3

NINETY FIVE PERCENT CONFIDENCE INTERVALS FOR VARIOUS DUTY CATEGORIES
DURING NORMAL DUTY HOURS (IN HOURS)

<u>INTERVALS</u>	<u>MEAN</u>	<u>STANDARD DEVIATION</u>	<u>STANDARD ERROR</u>	<u>95 PERCENT CONFIDENCE INTERVALS FOR MEAN</u>
DIRECT PATIENT CARE	30.09	9.38	.46	29.16 to 31.01
INDIRECT PATIENT CARE	3.09	3.23	.16	2.77 to 3.41
CONTINUING EDUCATION	.72	3.30	.16	.40 to 1.05
OTHER DUTIES	2.01	3.63	.18	1.65 to 2.37
ABSENCES	4.07	9.42	.47	3.14 to 4.99

TABLE 4
NINETY FIVE PERCENT CONFIDENCE INTERVALS FOR VARIOUS DUTY CATEGORIES
OUTSIDE NORMAL DUTY HOURS (IN HOURS)

<u>VARIABLE</u>	<u>MEAN</u>	<u>STANDARD DEVIATION</u>	<u>STANDARD ERROR</u>	<u>95 PERCENT CONFIDENCE INTERVALS FOR MEAN</u>
DIRECT PATIENT CARE	.58	1.56	.07	.43 to .74
INDIRECT PATIENT CARE	.79	2.23	.11	.57 to 1.01
CONTINUING EDUCATION	2.65	5.63	.28	2.10 to 3.20
TOTAL WEEKLY HOURS	4.01	6.82	.34	3.33 to 4.68

TABLE 5

HOURS EXPENDED PER WEEK IN VARIOUS DUTY CATEGORIES DURING NORMAL DUTY HOURS

DESCRIPTIVE STATISTICS*

<u>DUTY CATEGORY</u>	<u>MEAN</u>	<u>MEDIAN</u>	<u>MODE</u>	<u>RANGE</u>	<u>STANDARD DEVIATION</u>	<u>STANDARD ERROR</u>
DIRECT PATIENT CARE	30.09	32.49	0	40.00	9.38	.46
INDIRECT PATIENT CARE	3.09	2.10	0	16.00	3.23	.16
CONTINUING EDUCATION	.82	.05	0	40.00	3.30	.16
OTHER DUTIES	2.01	1.01	0	40.00	3.63	.18
ABSENCES	4.07	.07	0	40.00	9.42	.47

*Due to rounding weekly duty hours do not total exactly 40.
N = 100 Respondents

TABLE 6

HOURS EXPENDED PER WEEK IN VARIOUS DUTY CATEGORIES OUTSIDE NORMAL DUTY HOURS

DESCRIPTIVE STATISTICS

<u>DUTY CATEGORY</u>	<u>MEAN</u>	<u>MEDIAN</u>	<u>MODE</u>	<u>RANGE</u>	<u>STANDARD DEVIATION</u>	<u>STANDARD ERROR</u>
DIRECT PATIENT CARE	.58	.03	0	12.00	1.56	.07
INDIRECT PATIENT CARE	.79	.04	0	16.00	2.23	.11
CONTINUING EDUCATION	2.65	.54	0	61.00	5.63	.28
WEEKLY TOTAL	4.01	1.43	0	61.00	6.82	.34

N = 100 Respondents

TABLE 7

HOURS EXPENDED PER WEEK IN VARIOUS DUTY CATEGORIES DURING NORMAL DUTY HOURS
SIGNIFICANCE TABLE

DEPENDENT VARIABLE	POPULATION MEAN	DEGREES OF FREEDOM	F RATIO	P	DUNCANS' MULTIPLE RANGE TEST COMPARISON OF GROUP MEANS
DIRECT PATIENT CARE	30.09	3/395	3.48	.016	NS
INDIRECT PATIENT CARE	3.09	3/395	1.89	NS	NS
CONTINUING EDUCATION	.72	3/395	.90	NS	NS
OTHER DUTIES	2.01	3/395	4.89	.002	3 < 5, 6; 4 > 6
ABSENCES	4.07	3/395	2.33	NS	NS

N = 100 Respondents

TABLE 8

HOURS EXPENDED PER WEEK IN VARIOUS DUTY CATEGORIES OUTSIDE NORMAL DUTY HOURS
SIGNIFICANCE TABLE

DEPENDENT VARIABLE	POPULATION MEAN	DEGREES OF FREEDOM	F RATIO	P	DUNCANS' MULTIPLE RANGE TEST COMPARISON OF GROUPS MEAN
DIRECT PATIENT CARE	.58	3/396	2.81	.038	6 < 5
INDIRECT PATIENT CARE	.79	3/396	2.72	.043	3, 4 < 5
CONTINUING EDUCATION	2.65	3/396	3.99	.008	3 < 4, 5, 6
WEEKLY TOTAL HOURS	4.01	3/396	4.13	.006	3 < 5

N = 100 Respondents

TABLE 9

PERCENT OF 40 HOUR WEEK EXPENDED IN VARIOUS DUTY CATEGORIES BY RANK*

RANK	DIRECT PATIENT CARE	INDIRECT PATIENT CARE	CONTINUING EDUCATION	OTHER DUTIES	ABSENCES
CAPTAINS (Group 3)	78.35	7.93	1.63	3.88	8.18
MAJORS (Group 4)	71.25	5.98	1.70	5.38	15.58
LIEUTENANT COLONELS (Group 5)	70.95	8.05	1.60	6.73	12.60
COLONELS (Group 6)	68.85	10.03	4.50	10.30	6.30

*Totals may not equal 100 because of rounding

TABLE 10

HOURS EXPENDED IN VARIOUS DUTY CATEGORIES DURING NORMAL DUTY HOURS, BY RANK

RANK	DIRECT PATIENT CARE	INDIRECT PATIENT CARE	CONTINUING EDUCATION	OTHER DUTIES	ABSENCES
CAPTAINS (Group 3)	31.34	3.17	.65	1.55	3.27
MAJORS (Group 4)	28.50	2.39	.68	2.15	6.23
LIEUTENANT COLONELS (Group 5)	28.38	3.22	.64	2.69	5.04
COLONELS (Group 6)	27.54	4.01	1.80	4.12	2.52

TABLE 11

HOURS EXPENDED IN VARIOUS DUTY CATEGORIES OUTSIDE NORMAL DUTY HOURS, BY RANK

RANK	DIRECT PATIENT CARE	INDIRECT PATIENT CARE	CONTINUING EDUCATION	TOTAL HOURS
CAPTAINS (Group 3)	.49	.74	1.86	3.05
MAJORS (group 4)	.75	.39	3.73	4.87
LIEUTENANT COLONELS (Group 5)	.93	1.43	3.62	5.97
COLONELS (Group 6)	0	.78	4.41	5.19

APPENDICES

**TIME EXPENDED BY ARMY GENERAL DUTY DENTAL CORPS
OFFICERS IN THE PERFORMANCE OF THEIR DUTIES**

I. GENERAL INFORMATION:

- A. Post _____
- B. Week of _____
- C. Rank _____
- D. Number of Years of Active Duty in this Capacity ____.

COLUMN

		1,2
		3,4
		5,6
		7

II. NUMBER OF HOURS EXPENDED IN VARIOUS DUTY CATEGORIES DURING NORMAL DUTY HOURS:

- A. Use only one-quarter, one-half, three-quarters, or whole numbers of hours.
- B. Each daily total must equal 8 hours.
- C. Leave the boxes at the right of the page blank.

DUTY CATEGORY	NUMBER OF HOURS								
	MON	TUE	WED	THR	FRI				
DIRECT PATIENT CARE									8,11
INDIRECT PATIENT CARE									12,15
CONT. EDUC. DUTIES									16,19
OTHER DUTIES									20,23
ABSENCES									24,27
DAILY TOTAL									28,29

WEEKLY TOTAL MUST EQUAL 40 HOURS

III. NUMBER OF HOURS EXPENDED IN VARIOUS DUTY CATEGORIES AFTER NORMAL DUTY HOURS:

- A. Use only one-quarter, one-half, three-quarters, or whole numbers of hours.
- B. Leave the boxes at the right of the page blank.

DUTY CATEGORY	NUMBER OF HOURS					SAT	SUN		
	MON	TUE	WED	THR	FRI				
DIRECT PATIENT CARE									30,33
INDIRECT PATIENT CARE									34,37
CONT. EDUC. DUTIES									38,41
DAILY TOTAL									42,45

IV. ARE YOU IN AN INFORMAL SPECIALTY ROTATION? _____

50

DIRECTIONS FOR COMPLETION OF FORM TITLED
"TIME EXPENDED BY ARMY GENERAL DUTY DENTAL CORPS OFFICERS
IN THE PERFORMANCE OF THEIR DUTIES"

- I. Question II. The number of hours expended during normal duty hours must total 8 per day. Do not fill in the boxes under "Column."
- II. Question III. No specific number of expended hours is required per day.
- III. Dental Officers providing information in this study will forward completed forms through their Director of Dental Services to the HCSD project officer on a WEEKLY basis.
- IV. Explanation And Examples Of Specific Functions To Be Classified Under The Various Duty Categories In Question II and III.
 - A. Direct Patient Care: The time expended in direct patient care will include all of the dental officer's time expended in patient treatment and the accomplishment of dental patient treatment procedures which are recorded on HSC Form 144 EXCEPT where there is a conflict associated with the functions listed under duty categories B, C, D or E below.
 - B. Indirect Patient Care: The time expended in indirect patient care will include all of the dental officer's time expended performing the following functions:
 1. Dental Laboratory Procedures.
 2. Treatment planning for a patient when the patient is NOT present in the dental laboratory.
 3. Reviewing a patient's record when the patient is not present.
 4. Writing up a patient's record when the patient is not present.
 5. Consultation with a laboratory technician concerning a patient when the patient is not present.
 6. Consultation with another doctor concerning your patient when the patient is not present.
 7. Consultation with another doctor concerning HIS/HER patient. The patient may be present or absent.
 8. Assisting another doctor in direct patient care.
 - *9. Special Note: When two dental officers are simultaneously treating a patient in the operatory, one dentist will take credit for direct patient care and the other dentist MUST take credit for indirect patient care. The senior dental officer will make this decision.

C. Education Duties: The time expended in education duties will include all of the dental officers time expended in performing the following functions:

1. Giving or attending lectures, literature reviews, group patient treatment conferences (not to include Oral Health Instruction for patients) and symposia.
2. Preparing for lectures, literature reviews, group patient treatment conferences (not to include Oral Health Instructions for patients) and symposia.
3. Giving or attending educational demonstrations not involving direct or indirect patient care.
4. Reading dental/medical literature, notes and other written materials associated with self improvement as a dentist.
5. Library and other study time associated with self improvement as a dentist.
6. Attending dental professional meetings.
7. Other self-improvement (dental) continuing education.
8. Other duties directly associated with continuing education which are not listed elsewhere AND not associated with direct or indirect patient care.

D. Other Duties: The time expended in other duties will include all of the dental officer's time expended in performing the following functions:

1. Military duties NOT associated with direct patient care, indirect patient care, continuing education and/or absences.
2. Dental duties NOT associated with direct patient care, indirect patient care, continuing education and/or absences.
3. Attendance at clinic directors (chiefs) meetings.
4. Attendance at meetings not listed above which might be called by the Director of Dental Services, clinic directors, unit commanders, and/or post commanders.
5. Performance of clinic and/or unit administrative duties.
6. Physical training.
7. Down time and other miscellaneous time including failed patient appointments when no other duties are performed.

E. Absences: The time expended in absences from duty will include the following:

1. All types of leaves.
2. Passes.
3. VOCO absences/
4. Dental/medical appointments (to include time in transient to and from clinics).
5. Sick in quarters.
6. TDY which is NOT associated with self-improvement as a dentist. (i.e., Included in this study category will be TDY to attend management conferences, military courses and TDY for similar purposes).
7. Holidays.

DISTRIBUTION:

Defense Documentation Center (2)

HQDA (DASG-DCA) (1)

**Dir, Joint Medical Library, Offices of The Surgeons General,
USA/USAF, The Pentagon, RM 1B-473, Washington, DC 20310 (1)**

USA HSC (ATTN: HSDS) (2); (ATTN: HSCM-R) (5)

AHS, Stimson Library (1)