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CLINICAL INVESTIGATIONS OF STUTTERING:

I. ADJUSTMENT AND EFFECTIVENESS OF STUTTERERS
IN MILITARY SERVICE

by

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January 1968

U.S. Army Medical Research
and Development Command
Project No. 3A 025601A826 01 036

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SUMMARY

The adjustment and effectiveness of stutterers in military life were studied by comparing their performance in various areas with the performance of the Army as a whole. It was concluded that stutterers probably do not differ as a group from the over-all Army in the type of occupational specialties held, rates of promotion, and incidence of disciplinary action.

This ability to adjust and perform effectively is independent of any treatment of the disorder although it is assumed that successful therapy would allow the stutterer to be even more effective by releasing energies otherwise directed at the management of his difficulties in communication.

FOREWORD

The research reported here was carried out at the Audiology and Speech Center, Walter Reed General Hospital, Walter Reed Army Medical Center, under the sponsorship of the U.S. Army Medical Research and Development Command. This paper covers Phase I of a program of clinical investigations of stuttering, under DA Project No. 3A 025601A826 01 036.

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CLINICAL INVESTIGATIONS OF STUTTERING:

I. ADJUSTMENT AND EFFECTIVENESS OF STUTTERING IN MILITARY SERVICE

INTRODUCTION

This report is the first phase of a larger study of the adult stut-
terer. The purpose of this phase was to investigate the status of
the stut-terer in the armed services, and to make meaningful obser-
vations about his adjustment to and effectiveness in military life.
A second phase (Naylor and Rosenthal, 1968) explores intensive
short-term treatment and follow-up of the adult stut-terer. A third
phase will report on the use of videotape recordings in evaluation
of treatment and will attempt some unquantified assessment of
such visual recordings as a tool in therapy. While the subjects
were limited to members of the armed forces, it was felt that the
procedure and findings may have somewhat broader implications.

The question of whether the person who stutters should be
inducted into the armed services in the first place has never been
entirely resolved, although the matter has been discussed repeat-
edly since the days of World War II. The stut-terer's effectiveness
has been questioned for at least two reasons. First, the opinion
has been expressed that the stut-terer's difficulty in communicating
will interfere with the performance of his duties. Secondly, it has

often been assumed that stuttering is a reflection of emotional maladjustment. Thus the person who stutters might be expected to have greater than usual problems in adjusting to military life.

While research suggests that stutterers as a group are less well adjusted than non-stutterers with regard to social (Spriestersbach, 1951) and home (Duncan, 1949) adjustment, such measures are not necessarily predictive of social or occupational effectiveness. Fleischman (1946) found no difference in the incidence of stuttering in criminal and non-criminal groups, suggesting that if emotional maladjustment is more frequent in stutterers, it is not expressed in antisocial behavior any more frequently than in the non-stuttering population.

The most extensive investigation of speech disorders in the armed services to date was carried out by Peacher and Harris (1946). In the part of their investigation concerned with stuttering, the authors offered the opinion that stutterers served effectively in both combat and non-combat duty. They concluded in part:

Should the policy of universal military duty be inaugurated in this country, we suggest that a more adequate and standardized test service for speech defectives be organized by the Surgeon General, and

that those stutterers and other speech defectives otherwise capable of military service be sent to special centers where speech correction would be provided on a systematic basis (p. 308).

In the Peacher and Harris study there were no direct comparisons between stutterers and non-stutterers with regard to variables which might have provided a direct measure of adjustment and effectiveness. It was intended that the present study fill this gap.

The present investigators were faced with the problem of selecting methods of studying military adjustment and effectiveness. The idea of requesting information for each subject's commanding officer was considered but finally discarded because it was felt that the source would be too variable and no check of the reliability of such data would be possible. It was felt that any questions which we might ask a commanding officer about a subject would be aimed at obtaining information concerning the subject's job performance, promotion record, and disciplinary problems. It was finally decided that such information could be obtained with adequate reliability from the subjects themselves in confidential interviews.

PROCEDURE

Sample .

The sample for this portion of the study consisted of 35 male, Army enlisted personnel. Because it was decided to include this investigation as part of the total study only after the study had already begun, some subjects were not interviewed until they returned for six month follow-up appointments. The Air Force enlisted personnel in the original sample were excluded from this survey in the interest of sample homogeneity since both promotion rates and occupational categories in the Air Force differ significantly from those in the Army. The Air Force group was considered too small to be studied separately.

Collection of Data .

Regardless of whether the subject was interviewed before therapy or at follow-up, only information concerning the person's status prior to his first contact with the clinic was considered. Thus the picture of each subject obtained during the study reflects his military adjustment and effectiveness prior to any therapeutic contact with the Center.

All data were collected in personal, confidential interviews conducted in all cases by one of the authors. At the beginning of each interview it was explained to the subject that certain

information was desired about his promotional, occupational, and disciplinary history while in the Army. It was further explained to the subject that this information would be used only for research purposes and would not even be available to his therapist without his consent. All subjects were encouraged to refuse to participate in this part of the study rather than provide inaccurate or false information. As a matter of fact, none of the subjects refused to cooperate and all were apparently candid although no attempt was made to verify their information. To be sure, those subjects who reported disciplinary actions against themselves often contested the validity of the charges. But the subject's opinion was not utilized as data.

There follows a more detailed description of the data collected.

(1) Occupational classification was based on the subject's current Military Occupational Specialty (MOS), even if this was not his primary MOS. When the subject reported his MOS, the number and title were cross-checked in the Manual of Enlisted Military Occupational Specialties, AR 611-201, June 1960. When the particular MOS had been located in this manual, the published description was compared to the subject's informal description of his duties. In this way the verified MOS was obtained and recorded for each subject.

(2) Information concerning the subject's military rank and grade as well as the time in service required to achieve the current grade was obtained through interview. Although great care was taken to reconstruct each subject's complete promotion history, the data finally used in the study were limited to the rank and grade at the time of the interview, the date of promotion to that grade (i.e., time in grade), and total time in service. These items of information were supplied with ease by all subjects. In some cases, however, persons had attained the same rank for the second time. Regardless of whether this was due to an earlier reduction in rank for disciplinary reasons or due to loss of rank resulting from a period of time out of service, the time required for the attainment of the current grade for the first time was recorded and used in the analysis of data.

(3) Each subject's disciplinary history was obtained during the interview. In addition to asking the subject to enumerate all disciplinary actions against him, each was asked to specify the type of action, the charges, and the eventual outcome. Those persons who denied any action were drawn out by asking them to talk about anything which might be construed as a disciplinary action, including group punishments, extra duty, etc. Although much information was collected in this manner, only certain data were finally used. These included all individual punishments

under Article 15 of the Uniform Code of Military Justice (UCMJ) and all courts martial convened, regardless of outcome.

RESULTS AND DISCUSSION

(1) The occupational categories of all subjects were determined and summarized in Table 1. The results show that 27 different military occupational specialties are represented in the sample. Of those subjects listed in combat and combat support specialties, five were currently air-borne qualified. Although no attempt has been made here to compare these results with overall Army statistics, it is evident that the subjects in our sample occupy a variety of military occupations, many of which are highly specialized and require rigorous training as well as above average ability. While this in itself speaks well for the usefulness of the stutterer in the military service, it might still be argued that simply holding a specialized military occupation does not indicate the subject's proficiency in performing his duties. While this is quite possibly true, these data are not meant to stand alone. Rather they should be analyzed and interpreted along with the other results reported here.

(2) The attainment of military rank is usually considered to be an indication of the degree to which an individual is successfully performing his duties both on the job and as part of the command

Table 1. Military occupation of 35 Army stutterers according to type and specialty.

Type	Specialty	N
Combat.....		5
	Light Infantryman.....	3
	Infantry Intelligence.....	1
	Missile Crewman.....	1
Electronics		1
	Field Radio Repair.....	1
Electrical Maintenance		3
	Wire Repair.....	1
	Missile Equipment Repair.....	1
	Ballistic Missile Repair.....	1
Military Crafts		1
	Petroleum Storage Specialist.....	1
Motor Maintenance		6
	Engineer Equipment Repair.....	2
	Vehicle Mechanic.....	2
	Heavy Vehicle Driver.....	2
Clerical		12
	Information Specialist.....	1
	Clerk.....	1
	Clerk Typist.....	2
	Personnel Specialist.....	2
	Cryptomaterial Specialist.....	1
	Data Processing Operator.....	1
	General Supply.....	2
	Parts Supply.....	2
Graphics		1
	Photographer.....	1
General Technical		5
	X-Ray Specialist.....	1
	Cook.....	2
	Military Policeman.....	1
	Traffic Analyst.....	1
Special Assignment		1
	Percussion Player Bandsman.....	1

unit. From the information which we obtained we were able to compare the promotion rates of the subjects in our sample with the rates for the Army as a whole (1). These results are summarized in Table 2. This table indicates the incidence of enlisted grades in the sample as well as the mean number of years in service required to attain each grade. The information for the Army as a whole is based on the overall Army arithmetic average of all promotions. These figures cover a two year period from June 30, 1962 to June 30, 1964. All subjects in the sample were on active duty either throughout this period or during a portion of this period. Only four enlisted grades were represented in the sample and these are the only grades reported in the table for comparison with overall Army data.

Table 2. Number of years required to attain enlisted grades.

Grade	Number in Sample	Sample Mean	All Army Mean
E-3	12	.8	.8
E-4	9	1.8	2.5
E-5	10	6.1	5.0
E-6	4	9.7	11.5

These results must be interpreted in the light of information about our sample. It must be realized that the sample did not consist of a random selection of all stutterers in the Army or the armed services, but only of those stutterers who were referred to the Clinic and were

accepted for treatment. But this group was rated above average in the severity of their stuttering--a mean rating of 3.4 on a 5-point scale--which suggests the reasonable conclusion that those who stutter more severely are more apt to be referred to a speech clinic. And if our findings are true for these more severe stutterers, it seems likely that they would also hold for the remainder of the population of stutterers in the Army.

Another possible conclusion, however, is that our sample was a group of relatively high achievers among the general population of stutterers in the Army, hence were referred for therapy by their commanding officers as a form of recognition of their already proven value to their military units, or because of a desire to make them even more effective in their relatively prominent positions.

It was not possible to determine whether the mean differences found are significant since the standard deviation of the all-Army distribution was not available. Thus, generalization to the population of stutterers in the Army or the armed services as a whole must be made with caution.

With these qualifications, it seems reasonable, though without clear statistical support, to conclude that stutterers in the Army probably are at least as likely to be promoted as their peers who do not stutter.

(3) Incidence of disciplinary actions provides still another measure of adjustment to military life. Table 3 compares the incidence of punishments under Article 15 of the UCMJ between the sample and the Army as a whole (2). The data presented are for the period from October 1963 to September 1964. Both the quarterly average strengths and the number of persons receiving punishments during this period are shown, along with the rate of punishment as a percentage of average strength. Department of the Army strength estimates are based on an average of morning report strengths for the final day of each month. Our sample size was adjusted in such a way as to parallel this procedure. For this reason, the N for this table is reduced to 30, and includes only those individuals who were in the Army during the period for which all-Army data were available.

Table 3. Incidence of punishments under Article 15.

	All Army	Sample
Quarterly Average Strength	1,022,915	28
Number of Persons Receiving Punishments	177,347	2
Rate/Average Strength	17.3%	7.1%

Table 4 presents similar data for incidence of courts martial convened for two periods, from July 1962 to June 1963 and July 1963 to June 1964. The only available over-all Army data provided are in percentage of average strength for each period (3). Here again, the sample size varies to conform to the Army sampling procedure and the time periods for which over-all Army data were available.

Table 4. Incidence of courts martial convened.

	1962-1963		1963-1964	
	All Army	Sample	All Army	Sample
Quarterly Average for Period	-	28	-	31
Number of Courts Convened	-	1	-	1
Rate/Average Strength	6.2%	3.5%	6.0%	3.2%

Inspection of both Table 3 and Table 4 indicates that the incidence of Article 15 punishments and courts martial is lower in the sample than in the Army as a whole. Here again, however, as with the data on promotion rates, it is not possible to show statistically significant differences. In fact, since the rates

are based on quarterly average strength estimates, it is quite important to hold the turnover rate of personnel constant in order to minimize undue effects of overlap. As a matter of fact, the turnover rate at the Center is probably different from that of the Army as a whole. As a result the Army rates may be inflated, or rather, the sample rates deflated. However, in order to make the all-Army Article 15 rate the same as the sample rate, the total number of persons in the Army during the period under consideration would have had to have been in excess of 2.5 million. Here again it seems reasonable to conclude that the sample rates are at least not grossly different from the over-all Army rates and may even be somewhat lower.

CONCLUSIONS

From the foregoing it appears that there is little substance to the notion that stutterers are inferior in their adjustment to and effectiveness in military service as a result of their speech disorder. They hold a variety of occupational specialties and if rates of promotion and disciplinary action are any indication, they perform their duties adequately both on the job and as participants in the command unit. It is interesting to note that the data reported were collected about

a period in the subjects' military careers prior to any contact with the Center. On this basis it might be observed that the stutterer does not require treatment for his disorder in order to function adequately in the military service. Although the experience of therapy is generally rewarding to the stutterer, there is some question as to its effect on the performance of his duties. It would be useful to know whether the experience of speech therapy actually helps to make the stutterer more effective in a strictly military sense. It might be suggested that the person who stutters performs adequately in other areas of endeavor in spite of his speech disorder. But undoubtedly much energy is utilized in the day to day struggle with this problem which, if redirected, might permit more effective functioning.

SUMMARY

The adjustment and effectiveness of stutterers in military life were studied by comparing their performance in various areas with the performance of the Army as a whole. It was concluded that stutterers probably do not differ as a group from the over-all Army in the type of occupational specialties held, rates of promotion, and incidence of disciplinary action.

This ability to adjust and perform effectively is independent of any treatment of the disorder although it is assumed that successful therapy would allow the stutterer to be even more effective by releasing energies otherwise directed at the management of his difficulties in communication.

FOOTNOTES

- (1) Source: Office of the Chief of Staff of Personnel, Promotion and Retention Division, Department of the Army.
- (2) Source: Military Justice Division, Department of the Army.
- (3) Source: Judge Advocate General, Records Division, Department of the Army.

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