

Psychological Reactions to Infantry Basic Training¹

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One of the working assumptions of military psychiatry is that basic training has a beneficial psychological impact on the typical recruit. Based in part upon this impression, army psychiatric facilities employ a variety of techniques which strive to maintain the recruit in his training status, with the expectation that the training experience itself will have a generally ameliorative influence on many adjustment problems. The plausibility of this assumption was explored by administering the MMPI² to recruits selected from the first, fourth and eighth weeks of basic training.²

Method

Ninety-three active Army personnel having 12 years of education and between 18 and 22 years of age were selected as subjects (Ss). These controls on age and education were adopted to reduce probable sources of variation and thereby magnify any changes attributable to basic training. It should be recognized that these controls also act to limit the generalizations which can be made to other military populations.

Subjects were tested at three points in training: during the first, fourth and eighth or final week. Three separate groups of recruits were tested, rather than adopting test-retest procedures. The latter alternative was rejected since resentment about taking the MMPI two or three times within eight weeks might have become a contaminating influence. The extremely small number of psychiatric discharges usual during the course of basic training suggested that there would not be any selective factor operative in sampling three separate groups of men from each period of training.

All of the Ss were drawn from three basic training companies at one military post. Men were tested from more than one company, and men from each company were tested at each point of training in order to minimize the chance that any results obtained might simply reflect differences between companies rather than changes due to basic training. Men from each company were tested at each point in training: 28 men in the first week, 34 different men in the fourth week,

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²The original formulation of the problem was conceived of by the former Chief Psychologist at Fort Dix, N.J., Dr. Robert Marshall.

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and 31 additional men in the eighth week of training. All the men were tested in classrooms in their company area, and a minimum amount of information was given as to the purpose of the testing. The number of Ss in each group varied from the expected number of 30 because of eliminations due to large question mark scores, and a surplus of Ss in the fourth and eighth week testing sessions.

Results

The MMPI profiles without K correction for the mean scores obtained by the first, fourth and eighth week groups are shown in Fig. A. It can be seen that apart from D, Hy, and Mf, there is a consistent increase in the clinical scales from first, to fourth, to eighth week.

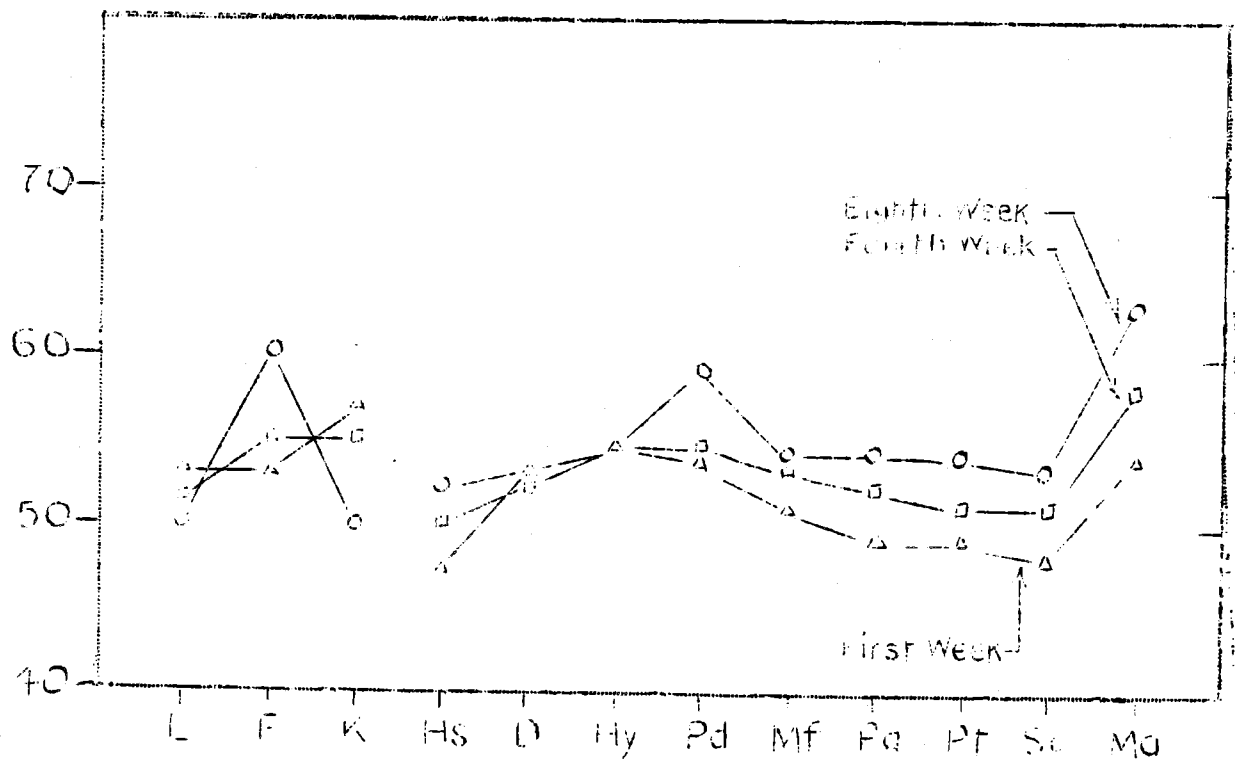


Fig. A. Mean Profiles without K correction for the first, fourth and eighth week groups.

Table A gives the means and standard deviations on the MMPI scales for the groups tested at the three points of basic training. In this table the scores on the traditional scales are listed first, followed by scores on the MMPI subscales (Lingoes, 1960), the recidivism scale (Clark, 1949), the ego-strength scale (Barron, 1953), and the pathology scale (Tamkin, 1959).

Table A

Means and Standard Deviations on MMPI Scales
for the First, Fourth and Eighth Week Groups

MMPI Scales	Means			Standard Deviations		
	First Week	Fourth Week	Eighth Week	First Week	Fourth Week	Eighth Week
?	.96	2.09	1.58	1.71	2.66	2.74
L	5.07	4.82	4.00	3.25	1.78	2.26
F	4.07	5.18	7.06	2.69	4.52	5.39
K	16.11	15.26	12.64	5.45	4.18	4.65
Hs	3.21	4.65	5.42	3.71	4.05	4.62
Hs + .5K	11.54	12.50	12.23	3.80	3.86	4.39
D	18.25	17.76	18.03	5.04	3.40	4.54
Hy	18.68	18.79	18.77	3.65	4.58	5.52
Pd	15.36	15.88	17.81	3.97	4.20	4.61
Pd + .4k	21.86	22.24	22.61	4.03	3.87	4.48
Mf	21.14	22.35	22.23	4.36	5.39	5.87
Pa	7.82	8.68	9.48	2.78	3.41	3.90
Pt	9.46	10.71	13.10	8.60	7.71	8.04
Pt + 1K	24.04	25.88	25.10	6.40	4.88	5.61
Sc	8.04	10.18	12.26	7.56	8.73	9.22
Sc + 1K	24.18	25.35	26.06	5.70	7.48	8.12
Ma	16.18	17.78	20.03	4.06	4.60	4.67
Ma + .2K	19.32	21.29	22.52	3.62	3.99	4.35
Si	21.64	23.06	24.45	9.88	7.22	9.65
Mean	53.56	55.10	56.07	5.84	4.99	7.77
T-score						
Pd 1	1.86	2.35	2.29	1.30	1.51	1.37
Pd 2	3.43	3.44	4.32	1.55	1.29	1.45
Pd 3	7.61	7.68	7.48	2.54	2.34	2.34
Pd 4	6.32	7.15	9.06	3.69	3.93	4.69
Pd 4A	3.96	3.82	5.06	2.24	2.25	2.85
Pd 4B	3.00	3.32	4.00	2.28	2.17	2.21
Ma 1	2.11	2.62	3.29	1.42	1.54	1.13
Ma 2	4.54	4.76	5.64	2.04	2.03	1.58
Ma 3	3.75	4.03	3.68	2.35	1.56	1.57
Ma 4	2.14	2.79	3.52	1.51	1.55	1.94
Pa 1	1.43	1.53	2.68	1.77	1.66	2.50
Pa 2	1.43	1.79	2.42	1.14	1.43	1.78
Pa 3	4.04	4.15	3.26	2.06	1.87	1.75
Rc	6.96	8.24	10.12	5.21	4.87	2.81
Es	33.96	33.45	32.32	3.12	5.23	4.10
P	5.50	7.14	9.77	4.02	6.74	7.10

An F ratio was used to evaluate the difference between the variance scores on each of the MMPI scales for the three groups. Table B summarizes the F tests which were found significant.

Table B

Differences in Variance on the MMPI Scales
for the First, Fourth and Eighth Week Groups

MMPI Scales	4th week -- 1st week		8th week -- 1st week	
	Difference	F	Difference	F
?	4.16	2.42**	4.60	2.57**
L	-7.41	3.33***	--	--
F	--	--	21.81	4.00***
D	-13.80	2.19**	--	--
Hy	--	--	17.11	2.28**
Ma 3	-2.08	2.26*	-2.04	2.38**
Rc	--	--	19.22	3.43***
Es	7.08	2.85***	--	--
P	19.22	2.85***	34.25	3.12***

* p < .05

** p < .01

*** p < .001

A t test was used to evaluate the significance of the differences between the means for the three groups on the MMPI. Table C summarizes the t tests which were found significant with a two-tailed probability test.

Table C

Differences Between Mean MMPI Scores for the
First, Fourth, and Eighth Week Groups

MMPI Scales	8th week -- 4th week		8th week -- 1st week	
	Mean Difference	t	Mean Difference	t
F	--	--	2.99	2.73**
K	-2.62	2.37*	-3.47	2.61**
His	--	--	2.21	2.04*
Pd	--	--	2.45	2.19*
Ma	--	--	3.85	3.39***
Ma + .2K	--	--	3.20	2.81**
Pd 4	--	--	2.74	2.53*
Ta 1	1.15	2.71**	1.25	2.72**
Ma 1	.67	2.01*	1.18	3.51***
Ma 4	--	--	1.38	3.06**
Rc	1.89	2.72**	3.17	2.35**
P	--	--	4.27	2.87**

* p < .05

** p < .01

*** p < .001

Discussion

Interpretation of the results is difficult since there is little information in the literature regarding differences which remain well within normal limits. The results should also be viewed with some caution because the magnitude of the differences obtained was usually quite small, although statistically significant.

There does not appear to be any pattern to the direction of the changes in variance or the scales on which a change was found. This problem was further explored by comparing the distribution of scores for each of the scales listed in Table B. Again, there was no consistent pattern noted, with the most frequent finding being a change from a rectangular to a positively or negatively skewed distribution. No interpretation is therefore offered for the data on the variability in scores on the MMPI scales, from the first, to fourth, to eighth week of training.

Over the period of basic training four of the traditional MMPI scales increased (F, Hs, Pd, Ma), while scores on K decreased. In addition, scores on four of the subscales, the recidivism scale and the pathology scale also increased. There was, however, no evidence of beneficial psychological effects accruing from basic training. While there was an increase in ego inflation and feelings of self importance, there was no such increase in measures of ego-strength.

The change in the shape of the MMPI profiles suggests that aggressive, impulsive and energetic features became slightly more prominent. The most cautious explanation of this change would be that the Ss were more willing to admit mild degrees of anti-social behavior in the eighth week since they had finished their training, and perhaps also experienced some relief in completing an arduous task.

The results on the four subscales suggest that asocial tendencies, a readiness to blame others, ignore the needs of others, and feelings of self importance increase slightly during the course of basic training. In different terms, the recruit develops more superficial, uninvolved attitudes towards personal relationships. He is less likely to examine his own contribution or responsibility for any conflict, and thus becomes more prone to react aggressively.

These changes in psychological reactions may well be functional or adaptive to the basic training situation. It certainly is not surprising, on an ex post facto basis, to note the developments of aggressive, impulsive or manipulative characteristics when men are subjected to a period of training in which they are reinforced for learning organized approved methods of expressing hostile impulses. It would seem important to determine if the reactions noted in this study are specific to basic training, or whether they persist during the recruits subsequent military career. The psychological reactions which develop during basic training, while possibly functional in that setting, might well not be as adaptive in many of the other situations encountered in a peacetime army.

A final note can be made of the implications of the results obtained on two of the MMPI special scales. The fact that the eighth week group obtained a mean score on the recidivism scale close to that reported for men with multiple AWOL's (Clark, 1949), and a mean score on the pathology scale higher than that reported for neurotic veterans (Tamkin, 1959), raises some question as to the validity of these two scales.

Summary

The belief that basic training has a beneficial psychological impact on the typical recruit was examined by administering the MMPI to recruits selected from the first, fourth and eight weeks of training. Three separate groups of recruits were tested; 93 active army personnel served as Ss.

There was no increase in scores on ego-strength or any other evidence of beneficial psychological effects accruing from basic training. Aggressive, impulsive and energetic features did become slightly more prominent. The recruits appeared less prone to examine their own responsibility for conflicts, and more ready to react aggressively. The results also raised some question as to the validity of the recidivism and pathology scales.

References

- Parron, F. An ego-strength scale which predicts response to psychotherapy. J. consult. Psychol., 1953, 17, 327-333.
- Clark, J.H. The adjustment of army AWOL's. J. abnorm. soc. Psychol., 1949, 44, 394-401.
- Lingoes, J.C. MMPI factors of the Harris and the Wiener subscales. J. consult. Psychol., 1960, 24, 74-83.
- Tamkin, A.S. An MMPI scale measuring severity of psychopathology. J. clin. Psychol., 1959, 15, 56.