Brit. J. Psychiat. (1965), 112, 941–943

The MMPI and the Aged—Some Normative Data from a Community Sample

By P. G. BRITTON and R. D. SAVAGE

There has been much speculation but little evidence concerning the view that personality characteristics, like cognitive factors, change with age. Consequently, the lack of information on the MMPI for aged populations may well have led to its inadvertent misuse on the assumption that the standard normative data given in the revised Manual (Hathaway and McKinley, 1951) are applicable to the elderly. The authors present data on a sample of the aged taken from the community which shows this assumption to be misleading, and attempt to improve this situation.

In 1951 Swenson reported that he could find no studies with aged subjects in which "the MMPI was used as a primary psychometric device". Since then the situation does not seem to have much improved. Swenson himself presented normative data on the validity measures and the basic clinical scales from the records of 95 subjects of both sexes aged 60+ which diverged from the original norms for younger age groups.

Kornetsky (1963) administered the MMPI to 43 aged males and found significant elevations on the D and Mf scales. A tendency for a rise in D scale score with advancing age was also reported by Canter *et al.* (1962). Several other investigations have been interested in personality changes on the MMPI with age (Brožek, 1955; Aaronson, 1958, 1960, 1964; Calden and Hokanson, 1959; Coppinger *et al.*, 1963; Edwards and Wine, 1963 and Hardyck, 1964), but have presented no normative data on samples beyond 65 years of age. The work of Aaronson on an MMPI ageing index highlights the need for information about personality in old age. Adequate age scaled normative data must be available before inferences concerning personality change or abnormality can be made.

Procedure and Results

This investigation was carried out on a sample of the aged (70+) resident in Newcastle upon Tyne. The full card form of the MMPI was administered to 83 subjects representing both sexes who were selected at random from the aged community sample of Kay, Beamish and Roth (1964a, b) which was selected to represent socio-economic groupings in Newcastle upon Tyne. The questionnaire items were read to each subject during two sessions in his own home.

Tables I and II present the means and standard deviations in terms of the standard K corrected T scores for each of the validity and basic clinical scales for the total sample and for each sex group. The "?" or "cannot say" scale is excluded from these tables as the mean raw scores fall just below those for which T scores are available.

The total sample shows significant deviations ($p<0.01$) on all except the Pd and Si scales from the standard population which had a M of 50 and SD of 10 on each scale. The means of the K, D and Sc scales are raised by more than one SD and the means of Hs and Hy scales by more than two SDs. Table II shows significant sex differences on the Hy ($p<0.05$) and Mf ($p<0.01$) scales.

A comparison with the Swenson (1961) and Kornetsky (1963) data shows our sample having higher scores than they obtained but the profile patterns to be similar. Even allowing for any possible sampling bias, the results we have presented confirm our suggestion that the

https://doi.org/10.1192/bjp.112.490.941 Published online by Cambridge University Press

TABLE I

MMPI K Corrected T Scores

Total Sample (N=83)

Scale	L	F	K	Hs(1)	D(2)	Hy(3)	Pd(4)	Mf(5)	Pa(6)	Pt(7)	Sc(8)	Ma(9)	Si(0)
Mean	41·3	54·8	61·5	73·2	67·4	72·5	49·6	56·8	54·5	58·1	62·3	42·3	47·5
S.D.	5·2	7·0	4·7	14·2	14·5	10·7	9·8	11·7	9·1	9·5	10·2	6·2	6·9

TABLE II

MMPI K Corrected T Scores

Male and Female Groups

Scale	Male (N=27) Mean	Male (N=27) S.D.	Female (N=56) Mean	Female (N=56) S.D.
L	41·4	5·6	41·2	5·0
F	54·6	6·6	55·0	7·5
K	61·9	4·5	61·0	4·7
Hs(1)	76·8	16·8	69·5	12·5*
D(2)	70·6	16·2	64·2	13·0
Hy(3)	73·4	10·6	71·7	10·8
Pd(4)	48·6	6·2	50·6	11·2
Mf(5)	48·4	5·1	65·3	9·7**
Pa(6)	52·5	5·3	56·4	10·2
Pt(7)	59·2	11·5	56·9	8·6
Sc(8)	62·9	11·2	61·7	10·0
Ma(9)	42·0	6·0	42·6	6·4
Si(0)	46·5	6·9	48·4	7·0

Difference significant at $p > 0{\cdot}05$ * $p > 0{\cdot}05$ **

standard normative data for the MMPI should not be applied to aged subjects. We advise that normative data reported here be used when the MMPI is administered to the aged.

SUMMARY

Normative data on the MMPI for a community sample over 70 years of age is presented. These data show considerable deviations from the standardization population, and it is advised that appropriate age corrected norms be used with elderly subjects.

ACKNOWLEDGEMENTS

We wish to acknowledge our gratitude to the Ministry of Health, whose grant to Professor M. Roth made this work possible and to our colleagues in the Department of Psychological Medicine, University of Newcastle upon Tyne.

REFERENCES

AARONSON, B. S. (1958). "Age and sex influences on MMPI profile peak distributions in an abnormal population." *J. consult. Psychol.*, **22**, 203–206.

—— (1960). "A dimension of personality change with aging." *J. clin. Psychol.*, **16**, 63–65.

—— (1964). "Aging, personality change and psychiatric diagnosis." *J. Geront.*, **19**, 144–148.

BRŎZEK, J. (1955). "Personality changes with age: an item analysis of the MMPI." *Ibid*, **10**, 194–206.

CALDEN, G., and HOKANSON, J. E. (1959). "The influence of age on MMPI responses." *J. clin. Psychol.*, **15**, 194–195.

CANTER, A., DAY, C. W., IMBODEN, J. B., and CLUFF, L. E. (1962). "The influence of age and health status on the MMPI scores of a normal population." *Ibid.*, **18**, 71–73.

COPPINGER, N. W., BORTNER, R. W., and SAUCER, R. T. (1963). "A factor analysis of psychological deficit." *J. genet. Psychol.*, **103**, 23–43.

EDWARDS, A. L., and WINE, D. B. (1963). "Personality changes with age, their dependence on concomitant intellectual decline." *J. Geront.*, **18**, 182–184.

https://doi.org/10.1192/bjp.112.490.941 Published online by Cambridge University Press

HATHAWAY, S. R., and MCKINLEY, J. C. (1951). *The Minnesota Multiphasic Personality Inventory Manual.* Revised. New York, The Psychological Corporation.

HARDYCK, C. D. (1964). "Sex differences in personality changes with age." *J. Geront.*, **19**, 78–82.

KAY, D. W. K., BEAMISH, P., and ROTH, M. (1964a). "Old age mental disorders in Newcastle upon Tyne: Part I: A study of prevalence." *Brit. J. Psychiat.*, **110**, 146–158.

——, ——, ——, (1964b). "Old age mental disorders in Newcastle upon Tyne: Part II: A study of possible social and medical causes." *Ibid*, **110**, 668–682.

KORNETSKY, C. H. (1963). "Minnesota Multiphasic Personality Inventory: results obtained from a population of aged men." In *Human Aging*, Birren *et al.* (Eds.). U.S. Dept. of Health, Education and Welfare, NIMH, Bethesda, Maryland, 253–256.

SWENSON, W. M. (1961). "Structured personality testing in the aged: An MMPI study of the gerontic populations." *J. clin. Psychol.*, **17**, 302–304.

P. G. Britton, B.Sc., A.B.Ps.S., *Research Associate*

R. D. Savage, B.A., Ph.D., A.B.Ps.S., *Lecturer in Applied Psychology*

Department of Psychological Medicine, University of Newcastle upon Tyne

(*Received 17 January, 1966*)

https://doi.org/10.1192/bjp.112.490.941 Published online by Cambridge University Press