

INDIVIDUAL STUDIES

The social background of the 'artificial practice'

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WHEN a community is under observation it is always necessary to define its social structure. This is because observed differences between its members may be the result of differences in mode of life, opportunity and culture. The 'artificial practice' is no exception. The need for a social study is reinforced by the fact that psychological tests were used, and their results cannot be interpreted without knowing the social context of the people who completed them. This article describes the results of the social study.

Method

Social data consist of well-defined material and are therefore easy to gather. The material observed in this study was social class, socio-economic group, civil state and family background. The Registrar-General's Classification (1960) gives social class and socio-economic group. The criteria for establishing social class are familiar and need no amplification here.

The socio-economic grouping is used less frequently. This is a useful grouping because it separates people who carry responsibility, e.g. foremen, from others with similar occupations. In this sense it amplifies the occupational classification.

Most surveys include three civil states; single, married or widowed. I added three other categories; divorced, divorced and remarried, and unmarried parents. I included married people who were living apart in the 'divorced' category whether they had gone through the formality of a legal separation or not.

Family background amplifies the social responsibilities of the married people. The following subgroups were used: young couples without children, couples with a child or children younger than school age, couples who had children at school as well as children under school age, elderly or middle-aged couples who had no children at all.

As in previous work I used four demand-attendance groups† (Jacob, 1967 and 1968). The differences between the four groups were analysed by the χ^2 test.

Results

Social class. The first two social classes could not be considered separately because there were not enough people in them. The first three classes were grouped together. The figures did not show a significant difference in social class between the demand-attendance groups. I have left the interpretation of this result to later because a number of extraneous factors must be considered. The figures are summarized in table I.

Socio-economic group. This grouping allows one to distinguish between people who are employed in a supervisory capacity and others who follow instructions. The figures in table II show that there is a disproportion of supervisors in the primean groups and

*Artificial practice—500 adults whose medical history for a year has been recorded in detail and whose personal characteristics have been measured. This system is used to study the relation between different types of people and their diseases.

†Demand-attendance group—The method of classifying people in the artificial practice. The classification is based on the number of episodes of illness experienced by a patient and the number of items of service he requires over the whole year.

a compensatory deficit in the supramean multiple group. None of the workers engaged in personal services in the 'artificial practice' were employed in a supervisory capacity.

Civil state. There were not enough people in the different recorded civil states to allow each category to be considered separately. A preliminary analysis showed that the supramean group had special features which distinguished it from the other three demand-attendance groups. It was also necessary to group divorcees, remarried divorcees and unmarried parents together. This is a justifiable grouping because all these people show or have shown difficulty in making acceptable social adjustments.

TABLE I
DIFFERENCES IN SOCIAL CLASS BETWEEN THE DEMAND-ATTENDANCE GROUPS

Social class	Demand-attendance group				Total
	Supramean multiple*	Supramean 'A'**	Perimean multiple*	Perimean 'A'**	
I, II, III ..	78	17	60	47	202
IV	62	14	25	44	145
V	51	14	22	32	119
Total ..	191	45	107	123	466

$\chi^2 = 10.1$ degrees of freedom—6 P < 0.05 not significant.

*Supramean multiple—a patient with three or more episodes of illness and 10 or more items of service.

**Supramean 'A'—a patient with one or two episodes of illness and 10 or more items of service.

*Perimean multiple—a patient with three or more episodes of illness and less than 10 items of service.

**Perimean 'A'—a patient with less than three episodes of illness and less than 10 items of service.

The results show that there is a disproportion of those people in the supramean multiple group.

TABLE II
DISTRIBUTION OF OCCUPATIONS BETWEEN DEMAND-ATTENDANCE GROUPS

Occupation	Socio-economic group	Demand-attendance group				Total
		Supramean multiple	Supramean 'A'	Perimean multiple	Perimean 'A'	
Supervision or decision-making	5, 6, 8, 12	26	9	26	32	93
Skilled manual	9	54	9	35	22	120
Semi-skilled including personal services, unskilled	7, 10, 11, 15	111	27	46	69	253
Total		191	45	107	123	466

$\chi^2 = 16.48$ degrees of freedom = 6 P > 0.02.

Analysis of the sexes separately showed a disproportion of widowed men and fewer widowed women in the supramean multiple group. These figures are summarized in tables III to V.

Family background. The family commitments of each demand attendance group

were studied in detail. There were no significant differences between the groups in the number of children for whom they were responsible.

Discussion

Studies in social class can only be interpreted in the light of information obtained from large populations. There were only 17 people in classes I and II in the 'artificial practice', and only one was in class I. This raises the question of selection artefact because the percentages of the population of England and Wales in the first two classes is 3.6 per cent and 22.8 per cent respectively (Census 1961). If the percentage of these two classes were the same in the 'artificial practice' there would be over 100 patients involved. In fact there is not that number in the whole practice of 4,000 people, so the bias to the lower classes is inherent in the population from which the 'artificial practice' was drawn and not a result of the selection method.

There is considerable regional variation between the social classes as the census figures show and this variation is relevant in morbidity studies (Brotherston and Chave 1956, Kemp 1967). It is possible that some variation exists within regions and this may lead to differences in practices within a given area.

It is generally accepted that people in social classes I and II have less illness than people in the lower classes, but recent work indicates that the difference between the classes is not so great as it once was. Logan and Cushion (1958) noted a slight gradient between classes I to III and also a higher non-sickness record in the first two classes. Brotherston and Chave (quoted above) published a gradient of rates found in their study. The latter's figures indicate only marginal differences between the classes, and since this is relevant to the interpretation of my figures I have included their table (table VI).

TABLE III

DIFFERENCE IN CIVIL STATE BETWEEN SUPRAMEAN MULTIPLE PATIENTS AND THE OTHER PATIENTS IN THE 'ARTIFICIAL PRACTICE'

<i>Civil state</i>	<i>Supramean multiple patients</i>	<i>Other patients</i>	<i>Total</i>
Married	113	170	283
Single	30	64	94
Widowed	20	27	47
Divorcees, remarried divorcees, unmarried parents, etc.	33	17	50
Total	196	278	474

$\chi^2 = 17.13$ degrees of freedom = $3P < 0.001$.

TABLE IV

DIFFERENCES IN CIVIL STATE BETWEEN MEN IN THE SUPRAMEAN MULTIPLE GROUP AND MEN IN THE OTHER GROUPS

<i>Civil state</i>	<i>Supramean multiple men</i>	<i>Other men</i>	<i>Total</i>
Married	60	88	148
Single	10	42	52
Widowed	11	5	16
Divorcees, remarried divorcees, unmarried parents, etc.	10	8	18
Total	91	143	234

$\chi^2 = 16.75$ degrees of freedom = $3P < 0.001$.

TABLE V

DIFFERENCE IN CIVIL STATE BETWEEN WOMEN IN SUPRAMEAN MULTIPLE GROUP AND WOMEN IN THE OTHER THREE GROUPS

<i>Civil state</i>	<i>Supramean multiple women</i>	<i>Other women</i>	<i>Total</i>
Married	53	82	135
Single	20	22	42
Widowed	9	22	31
Divorcees, remarried divorcees, unmarried parents, etc.	23	9	32
Total	105	135	240

$\chi^2 = 14.36$ degrees of freedom = $3P < 0.01$.

These differences may produce statistically significant figures in large populations comprising several practices, but are small enough to be obscured by chance variations, in a small population like the 'artificial practice'. This accounts for the absence of differences in distribution among the demand-attendance groups between the social classes.

There was no doubt that supervisors were less likely to find themselves in the supra-mean group than non-supervisors. This may be because they are in the habit of thinking for others and in consequence find it easier to make their own decisions in domestic matters. It could also be that they are more efficient in regulating their own lives and live in a healthier manner. This

TABLE VI
SICKNESS GRADIENT BETWEEN THE SOCIAL CLASSES AS FOUND BY BROTHERSTON AND CHAVE (1956)

Social class	I & II	III		IV	V	—
		c	abde			
Consultation rate (per patient) ..	3.2	3.3	3.7	3.7	3.8	4.9
Illness rate (per patient) ..	2.1	2.0	2.4	2.3	2.4	2.6

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finding is independent of the Registrar-General's social class distribution and suggests that health is associated with ability to make decisions rather than simply high earning.

The disproportion of people who had been divorced or unmarried parents in the supramean multiple group was also striking. There does not seem to be much literature on the relationship between this type of social maladjustment and morbidity although one report from California indicates that divorcees have higher illness rates than married or widowed people (La Horgue 1960).

The difference in that investigation was a difference in the incidence of chronic illness. Divorce or illegitimate birth indicates a failure of adaptation to the needs of society and this could be in part due to chronic ill-health. On the other hand a lack of social adaptability could be a factor in producing chronic ill-health. A third possibility is that lack of social adaptability and chronic ill-health are often associated without necessarily having a causal relationship. The situation undoubtedly produces emotional stress. Emotional stress will be the subject of later reports and does not require further elaboration at present.

The last result is the disproportion of widowers in the supramean multiple group. It may be that when older men lose their wives their social equilibrium is destroyed. They either become dependent on relatives or attempt to look after themselves without the experience in home management that most women have. In this situation one expects deterioration in health and increased dependence on the family doctor.

Women are conditioned to expect and accept widowhood since, as a group, they live longer than men and are more likely to weather this particular emotional storm more successfully. In addition household management becomes easier for them since they do not have to continue assessing and planning the care of their partner. Because most men are more dependent on their wives than they would care to admit, this loss of responsibility may ensure better relative health for the widow.

Summary

The article describes the social background of the 'artificial practice'. The findings were that there is no significant difference in social class between the four demand-attendance groups; that supervisors as a group are more likely to be in the perimean

groups and less likely to be in the supranean multiple group; and that people who had been divorced or were unmarried parents were more likely to be in the supranean multiple group. Widowers were also more likely to be in the supranean multiple group. The various possible interpretations of these findings are described.

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REFERENCES

- Brotherston, J. H. F., and Chave, S. P. W. (1956). *Brit. J. prev. soc. Med.* **10**, 200.
 General Register Office. (1960). *Classification of occupations*. London. Her Majesty's Stationery Office.
 Census. (1961). London. Her Majesty's Stationery Office.
 Jacob, A., and Pearson, J. (1967). *J. roy. Coll. gen. Practit.* **13**, 303.
 Jacob, A. (1968). *J. roy. Coll. gen. Practit.* **15**, 40.
 Kemp, R. (1967). *Lancet*. **1**, 1,316.
 La Horgue, Z. (1960). *J. chron. Dis.* **12**, 476.
 Logan, W. P. D., and Cushion, A. A. (1958). *Morbidity statistics from general practice*. London. Her Majesty's Stationery Office.

There is a kind of arrogance in specialized medicine that runs deeper than such attitudes do in other fields. The president of a company often defers to his comptroller on fiscal matters and to his legal counsel on legal matters. He utilizes their specialized knowledge without anyone talking about "referring problems beyond his competence". On the contrary, he is regarded as the epitome of over-all competence. Or, as another analogy, if the quarterback holds the ball for a place-kick specialist or calls upon the fullback to make a needed final yard, he is commended for utilizing effectively the talents of different members of the team. No one makes derogatory remarks about problems "beyond his competence". The practice of law, like the practice of medicine, now requires specialization. But in a modern law office it is a generalist rather than a narrow specialist who takes the leading role and earns at least equal prestige.

The analogies are relevant because the patient wants, and should have, someone of high competence and good judgment to take charge of the total situation, someone who can serve as co-ordinator of all of the medical resources that can help to solve his problems. He wants a company president who will make proper use of the skills and knowledge of more specialized members of the firm. He wants a quarterback who will diagnose the constantly changing situation, co-ordinate the whole team, and call on each member for the particular contributions that he is best able to make to the team effort.

In contrast, the words used in medical discussion often seem to assign to the family practitioner the inferior status of a routing clerk rather than that of an important member of the team.

In these attitudes, medicine has adopted and perhaps exaggerated the values of the scientific specialist. In the academic world, it is customary to put a greater premium on depth of knowledge in a specialized area than on more comprehensive wisdom covering a larger field. Within their own guilds, the most highly respected mathematicians, physicists, or economists are those who have penetrated most deeply into specialized and restricted domains. Perhaps these attitudes are proper among scientists or in the university, where the men most honoured are the ones who are extending the frontiers of knowledge. But medicine, although intimately based upon science, is not science. It is an application of science.

The Graduate Education of Physicians.

The Report of the Citizens Commission on Graduate Medical Education (p. 39). Commissioned by the American Medical Association, 1966.