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MARRIED WOMEN WHO WORK: THEIR OWN AND THEIR CHILDREN'S HEALTH

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Estimates of the proportion of married women who are doing paid work outside their homes vary considerably; but, despite the difficulties of securing reliable figures, it seems safe to conclude that, in most parts of the United Kingdom, the proportion is much greater to-day than it was before the second world war. In the 1931 Census for England and Wales, for example, only 11 per cent. of the married women were enumerated as gainfully employed or insured and seeking work compared with 22 per cent. in the 1951 Census. Subsequent estimates suggest that the proportion is still rising and that, nationally, about one in every four married women undertakes paid work outside her home.

Much emotion and not a little moralizing has been generated by this change; but there is a dearth of information on the circumstances of those who work. For example, it is not known how many of those who work have children; nor are there any routine administrative statistics which show how many children at any given age have mothers in full or part-time work.

When there is so little information upon the dimensions of the problem, it is not surprising to find that there is almost no attempt to assess objectively the effects which working outside their home has on married women and on their children. Almost the only study to throw light on the health of children under 5 years old whose mothers were in full- or part-time employment is that of Douglas and Blomfield (1958), which relates to children born in 1946.

The present paper presents some material which is relevant to this problem.

METHODS

The data were obtained in the course of an inquiry undertaken by the public Health Department of the London School of Hygiene and Tropical Medicine during the years 1954–57. The inquiry concerned a post-war housing estate built to rehouse Londoners in Hertfordshire. The population numbered about 17,000, and was composed of a relatively high proportion of young married couples with children and few elderly people. There were no factories on the estate; local employment opportunities for women were almost entirely restricted to the few shops on the estate and the public services.

Most of the information contained in this paper relates to families and individuals living in a randomly selected three-sixteenths of the dwellings on this estate. It came from three main sources: first, from the adults in this sample of dwellings, who were interviewed in their own homes; secondly, from the records of the general practitioners with surgeries on the estate, and thirdly, from the school teachers in the area. Further information about the children who had a routine school medical examination between January and March, 1957, was provided by their parents and school teachers.

In the interview survey, we tried to question all the adults* in our sample of dwellings twice, with an interval of 4 weeks between the two interviews. Mothers were interviewed about children of school age or less on two further occasions, also at an interval of 4 weeks. Two interviews were completed for 81 per cent. of the 3,040 individuals in our sample, and one interview for another 5 per cent. leaving 14 per cent. with no interview†. The information recorded on standard schedules, covered very generally the health of the individuals concerned, their use of the various branches of the health services, their jobs and educational background, and certain other social characteristics.

* Adults were defined as people aged 15 and over who had left school.

† The effect of this failure rate is discussed elsewhere.

The information obtained from general practitioners' records, kept specially for the purpose, included a count of the number of consultations which those who were registered with one of the six doctors on the estate had made during a calendar year (Brotherston, Chave, and others, 1956). About 86 per cent. of those living in the sample dwellings were registered with one or other of these doctors.

The information which the school teachers were asked to provide related to those children in the sample dwellings who were at school on the estate at the time of the 1954–55 inquiry. With few exceptions, the children attending infant, junior, and secondary modern schools went to estate schools; but all those attending grammar, technical, special, or private schools went elsewhere. The teachers' information, therefore, covered only 76 per cent. of the school children in the sample, but 88 per cent. of those at school on the estate*. The teachers assessed scholastic ability and attainments, certain aspects of personality, parental care, and attitude to the school. Estate schools also kept termly records of the heights and weights of all their pupils, and these records, together with further information from parents and teachers, were available for children who had a routine school medical examination during the January term, 1957.

Results

Employment of Married Women

At the time of our survey, some 40 per cent. of the married women were "gainfully employed"†: 18 per cent. were in what we called "full-time" work, that is, a job of 30 or more hours a week outside the home, 17 per cent. were working outside their homes for less than 30 hours per week, and 5 per cent. were gainfully employed in their own homes. For the purposes of the subsequent analysis we have grouped these two latter categories together, and called them "part-time" workers. We should stress, in addition, that our data relate to a point in time and do not take into account the fact that married women are likely to move in and out of employment with greater frequency than other categories of workers.

The proportion of married women at work was greatest among those in the middle age groups. Only one-third of those under 35 worked, compared with nearly half of those aged 35–54. But, as Table I shows, the proportion of those doing part-time work increased with advancing age.

Table I

PERCENTAGE EMPLOYMENT OF MARRIED WOMEN, BY AGE

Employment	Age (yrs)				
	Under 35	35–44	45–54	Over 55	All Ages
Working: Full-time	17	21	15	3	18
Working: Part-time	15	28	31	19	22
Working: Full-time + Part-time	32	49	46	22	40
Not Working	68	51	54	78	60
Sample (=100 per cent.)	232	214	78	31	555

Nearly nine out of every ten of the male tenants of this estate worked at skilled manual occupations classified by the Registrar General in Social Classes III, IV, and V. The distribution of married women's occupations as between manual and non-manual was very similar. Among both full-timers and part-timers manual work predominated; but a larger proportion of the part-timers than of the full-timers was in completely unskilled or semi-skilled work (Table II). Since there was no significant difference in the type of school which the full-time and part-time workers had attended or the age at which they had left school, we concluded that the difference in the type of work obtained was more likely to be a reflection of the work available than of different levels of skill or training.

Table II

OCCUPATIONS OF MARRIED WOMEN AT WORK, BY SOCIAL CLASS

Social Class (Registrar General's Classification)	Full-time Workers (per cent.)	Part-time Workers (per cent.)
I and II Professional and Intermediate	8	2
III Clerical	15	6
III Distributive	15	9
III Other Skilled Manual	24	22
IV Semi-skilled Manual	25	36
V Unskilled Manual	13	25
Sample (=100 per cent.)	98	124

An analysis of the workplaces of full-timers and part-timers lends substance to this view. A larger proportion of the part-timers were found to be

* A time lag between the house-to-house inquiry and the request for information from teachers was chiefly responsible for the failure to secure a schedule for each child.

† Widows and those living apart from their husbands are not included in this analysis.

working on the estate itself and within a 4-mile radius (Table III).

TABLE III

PLACES OF WORK OF MARRIED WOMEN AT WORK

Place of Work*	Full-time Workers (per cent.)	Part-time Workers (per cent.)
On Estate	16	29
Within 4 miles of Estate	57	62
More than 4 miles from Estate	27	9
Sample (= 100 per cent.)	98	98

* Excluding those working in their own homes

Our analysis showed that the question whether a married woman went out to work was closely associated with whether she had children. Nearly two-thirds of those without children worked, the great majority of them full-time, whereas the proportion of those who worked who had at least one child was rather less than 40 per cent. There was little difference between the proportions working amongst those with one, two, or three children; but amongst those with four or more children rather fewer than one-third were working and only one-tenth were working full-time (Table IV).

TABLE IV

PERCENTAGE EMPLOYMENT OF MARRIED WOMEN, BY NUMBER OF CHILDREN

Employment	Number of Children				
	None	One	Two	Three	Four or More
Working: Full-time	55	10	20	14	10
Working: Part-time	10	29	22	23	22
Working (total)	65	39	42	37	32
Not Working	35	61	58	63	68
Sample (= 100 per cent.)	42	98	167	137	103

There was also a low proportion of full-timers among mothers of only children. The reason for this would seem to be that such mothers were more likely to have a child of pre-school age than mothers of two or three children. Table V indicates that the most significant determinant of whether or not a mother worked was the age of the youngest child living at home.

Few mothers of very young children went out to work. In our sample, there were only two mothers of children under 2 years old in full-time employment and two in part-time work. Among mothers whose youngest children were between 2 and 5 years old, about one-sixth were working, the majority part-time. The really decisive change came when the youngest child was of primary school age. Of such mothers, in contrast to those with pre-school children, no fewer than half were working. Amongst mothers with youngest children of secondary school age (10 to 14) nearly two-thirds were working, and an increasing proportion of the workers undertook full-time work. There were fewer mothers working among those who had at least one unmarried child who had left school but continued to live at home. Possibly the extra income which these children brought to the household made it less urgent for the mother herself to work, and in addition she herself would be older.

TABLE V

PERCENTAGE EMPLOYMENT OF MOTHERS, BY AGE OF YOUNGEST UNMARRIED CHILD LIVING AT HOME

Mothers' Employment	Age of Youngest Child (yrs)				
	Under 2	2–4	5–9	10–14*	15 or Over*
Working: Full-time	3	6	16	29	22
Working: Part-time	3	11	37	37	20
Not Working	94	83	47	34	58
Sample (= 100 per cent.)†	71	123	183	59	40

* The 10 to 14 year group includes three mothers whose youngest child was 15 and still at school. The 15 and over group includes no mothers whose youngest children were still at school.

† Excludes mothers in households where there were two or more mothers of dependent children.

In other words, the working mother with a child of pre-school age was, in 1954–55, a comparative rarity; but the woman whose children had all reached compulsory school age was as likely to be at work as "not gainfully employed"; amongst mothers whose children had all reached secondary school age, the woman who did not work was the exception rather than the rule. When her children, in their turn, were all of an age to earn, the mother was more likely once again to become a housewife only.

CHILDREN WHOSE MOTHERS WORK

Douglas and Blomfield, in their national study of a sample of children born in 1946, found that, when the children were 2 years old, 7·5 per cent. of them had mothers at work. By the time they were 4 years old, 15·3 per cent. had mothers at work.

Our study covered children of all ages at a given point in time, and is not, therefore, comparable in all respects to the national inquiry. However, the proportion of children under 5 years old with a mother at work (Table VI, overleaf) is similar to that found in the earlier inquiry. School children of primary school age were much more likely than pre-school children to have a mother at work, and those of secondary school age even more so. Amongst these two latter groups, the chances that a child would have a mother at work depended very largely on his

TABLE VI

PERCENTAGE EMPLOYMENT OF MOTHERS, BY AGE OF CHILDREN

Mothers' Employment	Age of Children (yrs)			
	Under 2	2–4	5–9	10 or More
Working { Full-time	3	5	10	20
Working { Part-time	4	9	27	33
Not Working	93	86	63	47
Sample (= 100 per cent.)	67	186	394	281

position in the family. For example, in the 5 to 9 year age group (Table VII), younger children in families of two were twice as likely to have a mother at work as older children (57 per cent. as against 28 per cent). In the same age group, amongst children who came from families with three children, only 12 per cent. of the oldest children had mothers at work compared with 31 per cent. of middle children and 65 per cent. of youngest children. Clearly, in this age group, the children most likely to be affected are the youngest children in the families of two or three. So, although older children or those from large families have to compete with their siblings for their mother's attention, they are much less likely than their younger siblings to have a mother at work; that is, with demands on her time and energy outside the family.

CHILD HEALTH AND THE WORKING MOTHER

Douglas and Blomfield were not able to find many consistent differences between the illness records during the first 5 years of life of children whose mothers had worked full-time or part-time for more than a year and those of children whose mothers had not worked at all. There was an excess of lower respiratory tract infections among the children of those full-time workers who used the day nurseries during the first 2 years of life; but there were no indications of excessive illness among the children of those who worked full-time but did not use the day nurseries. Nor did the groups of children differ in heights or in liability to accidents. There was no excess of bad habits or nightmares at 6 years old among the children of full-time workers, and the apparent excess of bed-wetting amongst such children was wholly explained by the relatively high proportion of broken homes amongst them.

The small number of children under 5 years old in our sample whose mothers were working full-time or part-time makes it difficult to compare their health records with those of children whose mothers did not work. More reliance can be placed on the comparisons between children of school age.

Table VIII (opposite) shows, for children in three age groups, the varying proportions reported by their mothers to be suffering from or liable to certain symptomatic conditions. It also shows the average number of illnesses reported by their mothers to be present at the time of interview or to be recurring.

This information, collected quite differently from that obtained by Douglas and Blomfield, also fails to reveal any excess of illness among the children of school or pre-school age with mothers at work. The slight variations in the proportions reporting no illness and in the average numbers of illnesses reported can be explained by chance.

The types of condition reported for the different groups of children were also fairly similar. Only catarrh had larger variations than would be expected to arise purely by chance. A possible explanation for this finding is that mothers—especially mothers of pre-school children—are not likely to undertake full-time work unless their children are relatively free from chronic upper respiratory tract infections. The excess of eye-strain among the children of full-time workers, which was significant among the 5 to 9 year olds, may be associated with reading or televiewing habits. These children were regarded by their teachers as being rather more intelligent than the children of mothers who did not work (see Tables XIV and XV), and it is possible that, in 1954–55, there were more television sets in the homes of families where the mother was working than in those where she was not. Our data,

TABLE VII

PERCENTAGE EMPLOYMENT OF MOTHERS, BY CHILD'S POSITION IN FAMILY AND SIZE OF FAMILY, FOR AGE GROUP 5 TO 9 YEARS

Mothers' Employment	Number of Children						
	2		3			4 or More	
	Older	Younger	Oldest	Middle	Youngest	Older	Middle or Younger
Working { Full-time	9	18	—	5	24	2	5
Working { Part-time	19 } 28	39 } 57	12 } 12	26 } 31	41 } 65	10 } 12	25 } 30
Not Working	72	43	88	69	35	88	70
Sample (= 100 per cent.)	54	66	34	42	54	42	79

TABLE VIII

CHILDREN'S REPORTED ILL-HEALTH, BY MOTHERS' EMPLOYMENT

Age Group of Children (yrs)		Under 5		5–9			10 or More		
Mothers' Employment		Full- or Part-time	None	Full-time	Part-time	None	Full-time	Part-time	None
Average Number of Illnesses Reported		1·2	0·9	1·3	1·5	1·4	1·3	1·5	1·4
Number Reporting no Illness (per cent.)		35	45	32	26	26	33	23	30
Recurring Symptoms Reported (per cent.)	Catarrh	3	14	12	21	26	9	18	18
	Colds	13	24	24	20	26	22	11	20
	Coughing	29	14	15	17	17	7	5	9
	Eyestrain	10	5	20	9	9	11	9	8
	Headaches	3	1	10	7	9	13	20	15
	Loss of Appetite	10	8	5	13	9	—	4	3
	Nerves	6	6	12	18	12	15	26	11
	Rashes or Itches	6	4	15	4	7	5	5	4
	Running Ears or Earache	3	8	12	10	10	4	4	5
	Sore Throats	3	5	5	7	10	13	1	6
	Stomach Pains	3	2	7	10	6	5	8	9
	Trouble with Teeth or Gums	6	9	10	10	7	9	11	11
Sample (= 100 per cent.)		31	223	41	107	246	55	93	132

unfortunately, did not include this information. It is not easy to see why there should be more nerves and fewer colds and sore throats among children of part-time workers over 10 years old than among children of full-time workers and housewives.

CHILDHOOD HABITS AND PHOBIAS

It is equally difficult to explain why there should be more children with "nerves" among those whose mothers worked part-time than among those whose mothers worked full-time or not at all. Besides asking about the physical health of the children, we asked mothers of those over the age of 2 years whether their children had certain "bad" habits, such as thumb sucking, or were prone to nervous troubles such as nightmares. The conditions about which we asked specifically are enumerated in Table IX, together with the percentage of children for whom positive replies were given.

TABLE IX

CHILDREN'S REPORTED HABITS AND PHOBIAS, BY MOTHERS' EMPLOYMENT

Age Group of Children (yrs)		Children under 5		Children aged 5–9			Children aged 10 or More		
Mothers' Employment		Full- or Part-time	None	Full-time	Part-time	None	Full-time	Part-time	None
Percentage Children with Habit or Phobia	Thumb Sucking	23	13	16	10	13	9	3	8
	Nail Biting	12	16	20	25	19	29	26	21
	Nose Picking	8	12	5	22	8	—	4	2
	Twitches	—	1	2	9	3	4	1	2
	Stammering and Stuttering	—	8	9	8	2	4	3	2
	Temper Tantrums	8	18	5	11	9	9	10	3
	Too Quiet or Timid	4	2	2	3	4	5	4	4
	Nightmares or Night Fears	4	8	9	13	12	7	9	9
	Daytime Fears	—	3	2	3	5	—	—	1
	Excessive Rivalry or Jealousy	4	5	2	5	3	4	4	4
	Refusal to Eat an Adequate Diet	19	10	14	8	9	2	3	3
	Excessive Dislike of School*	—	—	—	6	4	2	3	5
	Poor Progress in Learning*	—	—	9	9	7	9	7	5
	Difficulty in making Friends of Same Age*	—	—	2	7	4	5	2	1
	Serious Disobedience*	—	—	—	1	2	2	4	2
	Bed Wetting*	—	—	9	7	8	2	1	3
	None of these Habits or Disorders	54	45	39	31	34	47	49	53
	Total (= 100 per cent.)	26	166	44	105	250	55	90	133
Average No. of Habits per Child		0·81	0·96	1·07	1·45	1·14	0·93	0·87	0·76

* Mothers were not asked about such conditions for children under 5 years of age.

The percentage of children reported by their mothers as having at least one of the conditions listed was greatest among the 5 to 9 year-olds. In this group but not in the others, the children of part-time workers were more frequently reported to have at least one of these conditions. The specific habits which they had more frequently than other children were nose picking, nail biting, and twitches. In the main, however, it is the similarity rather than the variation in the numbers reported by their parents as subject to these habits or phobias that is noteworthy. Like Douglas and Blomfield we could only conclude that there were no overt signs that children of any age whose mothers worked full-time or part-time were adversely affected emotionally.

Physical Development

The authors of the national inquiry (Douglas and Blomfield, 1958) found that there was no difference between the heights of children up to the age of 5 whose mothers worked and the heights of those whose mothers did not. Our information relates to children who had a routine medical examination between January and March, 1957, and for whom height and weight data were recorded (Table X).

There is no indication in our figures that the children of working mothers are of inferior stature. The slight differences in average height, in the proportions of weight for height, and in the rate of growth, were not statistically significant. In short, we confirm for children of school age the findings of Douglas and Blomfield for children under 5 years old.

School Attendance

Absence from school is an equivocal measure of ill-health among children. One child may have more absences than another for a variety of reasons. He may be more frequently ill, or he may have a mother who takes more precautions; yet again, his absences may be nearer to truancy, either connived at by the parents or not.

At our second interviews with mothers about the health of their children, we asked whether the child had been absent from school in the 4 weeks since the first interview. The results are shown in Table XI.

TABLE XI

PERCENTAGE OF CHILDREN ABSENT FROM SCHOOL FOR ONE OR MORE DAYS DURING A PERIOD OF 4 WEEKS, BY MOTHERS' EMPLOYMENT

Age Group of Children (yrs)	Mothers' Employment	Percentage Absent	No. of Children (= 100 per cent.)
5–9	Working { Full-time	20	40
	Working { Part-time	25	104
	Not Working ..	31	238
10 or More	Working { Full-time	16	52
	Working { Part-time	22	92
	Not Working ..	27	128

Children whose mothers worked full-time were least frequently absent from school, and those whose mothers did not work were most frequently absent. During the inquiry and before the results of the

TABLE X

CHILDREN'S PHYSICAL GROWTH AND STATURE, BY MOTHERS' EMPLOYMENT

School Attended			Infant and Junior		Secondary Modern	
Age Group of Children (yrs)			5 to 10		11 and Over	
Mothers' Employment			Working	Not Working	Working	Not Working
Measure of Physical Stature	(A) Average Height (in.)		49·5	48·7	61·0	60·6
	(B) Weight in relation to Height* (per cent.)	Heavy	5	13	17	17
		Average	86	76	62	56
		Light	6	11	21	27
	(C) Rate of Growth in Height† (per cent.)	Accelerated	2	2	13	17
		Normal	89	92	65	57
		Retarded	9	6	22	26
	Total Numbers (= 100 per cent.)	For Measures A and B	67	192	47	77
		For Measure C	46	125	45	70

* If children of any given height exceeded a certain weight they were classified as heavy. If they fell below a certain weight they were classified as light.

† Children's height gains at 6-monthly intervals were plotted on a chart against a curve representing the average height of London School children of the same sex and age in 1949. If the slope made by joining the points charted for the child at different ages from May, 1956, to May, 1957, was much steeper than the curve representing average heights of L.C.C. children, the child's growth was classified as "accelerated". If the slope was much less steep the child's growth was classified as "retarded". The greater proportion of secondary school children with accelerated or retarded growth rates (as compared with junior school) may reflect the different ages at which children reach puberty, which often appears to be preceded by a spurt in height.

family interviews were known, school teachers had expressed their concern about the number of children who were sent to school when they were clearly unwell. The teachers were convinced that the children most concerned were those whose mothers were working. Our findings may be taken as a partial confirmation of their impressions, at least in so far as the absences of children of mothers who were working and "not gainfully employed" were concerned. Our data will not, however, allow us to confirm or deny that the children of mothers who worked were more frequently sent to school when unwell than those whose mothers stayed at home. The proportion of children recorded as absent during a 4-week period seems high, particularly among those aged 10 years or more. There was no epidemic of an infectious disease during our family health survey which could account for a high absence rate. Another explanation, equally difficult to prove or disprove, is that working mothers are more ambitious for themselves and their families and, therefore, more concerned than non-working mothers that their children should attend school regularly. Still another possibility is that mothers who do not work are more prone to take precautions or to "molly-coddle" their children.

Assessments by Health Visitors and School Teachers

While Douglas and Blomfield, in their national inquiry, were not able to find any overt evidence that the children of working mothers had more illnesses and accidents or suffered in their emotional development, fewer of the mothers working full-time showed the best ratings in all aspects of child care according to the health visitors. They were also less well-known to the health visitors and less frequently "very willing" to take their advice.

In discussions before our inquiry, health visitors and teachers working in the area expressed the almost unanimous opinion that working mothers were usually less conscientious and more apt to neglect their children. We asked the health visitors, therefore, to make certain judgements concerning the mothers of children under 5 who were included in our three-sixteenths sample. The teachers were asked to assess the co-operativeness of the parents of the children in the sample, and to state whether they considered the child well cared for or neglected.

Where health visitors were concerned, our results were similar to those of Douglas and Blomfield. The health visitors knew significantly fewer of the working mothers, and were consequently able to assess fewer. Of those working mothers whom they did know, they rated a relatively small proportion as providing "good" care of both the child's physical and emotional needs; but the numbers were small and no significance can be attached to the differences in assessment (Table XII).

Table XII

HEALTH VISITORS' ASSESSMENTS OF MOTHERS OF PRE-SCHOOL CHILDREN (PER CENT.), BY MOTHERS' EMPLOYMENT

Assessment of Mother				Working Full- and Part-time	Not Working
Care of Child	Physical and Nutritional Needs	Not Assessed ..		21	4
		Assessed	Good	18	26
			Average	82	67
			Poor	—	7
	Emotional Needs	Not Assessed ..		21	9
		Assessed	Good	18	21
			Average	56	68
			Poor	26	11
Personality or Intelligence Inadequacy ..				37	28
Sample (= 100 per cent.)				29	232

The teachers' assessments did not, on the whole, confirm their previously expressed opinions about mothers who worked (Table XIII).

Table XIII

TEACHERS' ASSESSMENTS OF PARENTAL ATTITUDES AND CARE (PER CENT.), BY MOTHERS' EMPLOYMENT

Teachers' Assessment		Mothers' Employment		
		Working		Not Working
		Full-time	Part-time	
Parents' Attitude to School	Particularly co-operative ..	18	26	17
	Reasonably co-operative ..	62	55	59
	Indifferent	18	18	23
	Hostile	2	1	1
	Sample (= 100 per cent.) ..	65	141	303
Care of Child	Particularly well cared for..	44	45	35
	Adequately cared for ..	47	48	59
	Somewhat neglected ..	9	7	6
	Seriously neglected ..	—	—	—
	Sample (= 100 per cent.) ..	70	153	336

About one-fifth of the children were regarded as having parents who were indifferent or hostile to the school; but this proportion was not related to the mothers' employment. A rather high proportion of mothers who worked part-time was regarded as being particularly co-operative. Some of the part-time workers were employed in the schools as cleaners, canteen workers, or secretaries. It is possible, therefore, that higher assessments reflect greater familiarity.

None of the children in our sample was regarded by the teacher as being "seriously neglected", and less than one-tenth were described as "somewhat neglected"; but, as in the case of the parental attitude towards the school, this proportion was not significantly related to the mothers' employment. On the other hand, rather more of the children of working mothers than of those whose mothers did not work were regarded as being particularly well cared for, which may reflect the higher material standards of families in which the mother goes out to work.

Other assessments made by the teachers of the children's intellectual development and personality also fail to suggest a picture of the "neglected", "latch-key" child. For example, among primary school children, more of those with working mothers were regarded by their teachers as of higher than average intelligence, than of those whose mothers did not work (Table XIV).

TABLE XIV

TEACHERS' ASSESSMENTS OF INTELLIGENCE (PER CENT.), BY MOTHERS' EMPLOYMENT

Age Group of Children (yrs)		5–9		10 or More	
Mothers' Employment		Working	Not Working	Working	Not Working
Estimated Intelligence Quotient (per cent.)	120 orMore	5	5	7	2
	108–120	31	20	17	28
	92–108	39	34	42	44
	80–92	21	29	30	24
	Below 80	4	12	4	2
Sample (= 100 per cent.)		84	114	86	85

This difference was significant at the 5 per cent. level. There was no difference among the children of secondary school age who were assessed, but children attending grammar and technical schools were not included in these assessments.

In the primary school group, the reading ability of children of part-time workers was also rated more highly on the whole than that of those whose mothers did not work (Table XV).

TABLE XV

READING ABILITY OF CHILDREN AGED 6–9 IN JUNIOR SCHOOLS (PER CENT.), BY MOTHERS' EMPLOYMENT

Mothers' Employment		Working		Not Working (per cent.)
		Full-time (per cent.)	Part-time (per cent.)	
Reading Ability Percentile	A = Top 25 per cent.	21	36	25
	B = Middle 50 per cent.	58	44	48
	C = Bottom 25 per cent.	21	20	27
Sample (= 100 per cent.)		24	64	137

Besides assessing the children's intelligence and attainments in reading and some other subjects, the teachers were asked to place each child on a five-point scale for self-confidence, sociability, co-operativeness, perseverance, and conscientiousness. Very few children were placed at the extremes of the scale, and in our analysis the extremes were combined with their adjacent stages to make a three-point scale. The results for children aged 6–11 years in junior schools, grouped according to their mothers' employment, are given in Table XVI.

TABLE XVI

TEACHERS' ASSESSMENT OF CHILDREN'S CHARACTER (PER CENT.), BY MOTHERS' EMPLOYMENT

Mothers' Employment			Working		Not Working
			Full-time	Part-time	
Junior School Children Rated for	Self Confidence	Very self-confident	18	23	24
		Normally confident	49	51	44
		Timid or diffident	33	26	32
	Sociability	Very sociable	33	43	42
		Normally sociable	58	55	49
		Unsociable, solitary	9	2	9
	Co-operativeness	Very co-operative	33	44	30
		Normally co-operative	46	48	59
		Reluctant to co-operate	21	8	11
	Perseverance	Very persevering	27	27	25
		Normally persevering	36	49	51
		Lacking in perseverance	36	24	24
	Conscientiousness	Very conscientious	24	34	30
		Normally conscientious	46	52	53
		Careless, little pride in work	30	14	17
Sample (= 100 per cent.)			33	88	177

TABLE XVII

TEMPERAMENTAL CHARACTERISTICS REPORTED BY SCHOOL TEACHERS FOR CHILDREN WITH ROUTINE SCHOOL MEDICAL EXAMINATIONS (PER CENT.), BY MOTHERS' EMPLOYMENT

School		Junior		Secondary	
Mothers' Employment		Working	Not Working	Working	Not Working
Temperamental Characteristics	Nervous, tearful, apathetic, withdrawn, or over-dependent	17	21	16	20
	Exhibitionist, excitable, resentful of discipline, or spiteful	8	11	16	8
	None of above	81	72	76	74
Sample (= 100 per cent.)		48	136	58	78

These assessments show that the teachers, on the whole, found little difference in the self-confidence or sociability of children from the three groups. Where co-operativeness was at issue, the children of part-time workers seem to have excelled. The children of full-time workers, on the other hand, tended to be rated somewhat lower than other children in co-operativeness, perseverance, and conscientiousness.

Other assessments made by the teachers relate to children who had a routine medical examination during the spring term of 1957. No significant difference was found in the various temperamental characteristics enumerated in Table XVII between children whose mothers worked and those whose mothers did not work.

USE OF HEALTH SERVICES AND MOTHERS' EMPLOYMENT

Even if the health of children whose mothers work is similar to the health of children whose mothers do not work, it is possible that their use of the health services may differ. For example, Douglas and Blomfield found, in their sample of children under 5 years old, that hospital admissions were more frequent among the children whose mothers worked full-time than among those whose mothers worked part-time or not at all. They also found that the children of mothers working both full-time and part-time tended to stay longer in hospital once they had been admitted.

We found a similar difference between the admissions to hospital of children under 5 whose mothers worked and those of children whose mothers did not work; but our numbers were too small for us to say that such a result might not have occurred by chance. The smallness of our numbers also prevented us from comparing the lengths of stay in hospital of those whose mothers worked and those whose mothers did not work. Among children of school age, however, the difference in the proportions admitted to hospital is very small and without statistical significance when the two age groups are considered together. Among those aged 10 years and over, on the other hand, there was a higher proportion of children admitted to hospital in the previous year where the mother worked (Table XVIII).

TABLE XVIII

PERCENTAGE HOSPITAL ADMISSIONS IN 12 MONTHS BEFORE INQUIRY BY MOTHERS' EMPLOYMENT AND AGE OF CHILDREN

Age Group of Children (yrs)	Mothers' Employment	Percentage with Admissions to Hospital	No. of Children (= 100 per cent.)
Under 5	Working Full and Part-time	16	31
	Not Working	5	223
5–9	Working Full-time	10	41
	Working Part-time	13	106
	Not Working	12	246
10 and Over	Working Full-time	7	55
	Working Part-time	7	93
	Not Working	2	132

Variations in the use of the general practitioner's service—measured by the frequency of consultations—followed a different pattern. There was no statistically significant difference in the frequency with which mothers consulted the general practitioner about their pre-school children; but there was some indication that the children of school age whose mothers worked full-time were seen rather less frequently by the general practitioners than the children whose mothers worked part-time or not at all. Among children aged 5 to 9 years the difference was caused not so much by a larger proportion of children of full-time workers not being seen by the general practitioner at all, as by a small percentage seeing the doctor on five or more occasions. Among the children aged 10 years and over, on the other hand, a relatively high percentage of those whose mothers worked full-time had not consulted the doctor at all (Table XIX, overleaf).

TABLE XIX

FREQUENCY OF GENERAL PRACTITIONERS' CONSULTATIONS, BY MOTHERS' EMPLOYMENT AND AGE OF CHILDREN

Children registered with General Practitioners on Estate throughout 1953.

Age Group of Children (yrs)		Under 5		5–9			10 or more		
Mothers' Employment		Working	Not Working	Working		Not Working	Working		Not Working
		Full- or Part-time		Full-time	Part-time		Full-time	Part-time	
Percentage Children with Consultations (per year)	None	8	6	20	19	16	45	26	29
	One	8	15	20	12	19	13	14	21
	Two	29	12	17	16	14	9	24	18
	Three or Four	17	20	25	23	23	17	16	17
	Five to Seven	21 } 38	26 } 47	9 } 18	13 } 30	16 } 28	9 } 16	13 } 20	9 } 14
	Eight or More	17	21	9	17	12	7	7	5
Sample (= 100 per cent.)		24	135	35	84	193	46	76	103
Average No. of Consultations		4·2	4·8	2·6	3·9	3·4	1·9	2·6	2·2

We are not in a position to say why there should be a difference of this kind in the pattern of consulting by children of different ages whose mothers are working. A possible explanation is that the children aged 10 and over are more often expected to go to the doctor alone whereas the children less than 10 years old would be taken by the mother. This might lead to fewer of the older ones making any contact at all, whereas the mothers might be less inclined to pay repeated calls with the younger ones after an initial visit.

The teachers were strongly of the opinion that the School Minor Ailments Clinic on the estate was used excessively by children whose mothers were working as a substitute for the general practitioner. Our figures do not substantiate this impression; but the numbers involved were so small that it cannot be dismissed altogether. Interestingly enough, however, it was the children of part-time workers who seemed to use the school health services most frequently, and it was they who had the highest average consultation rates with the general practitioners (Table XX).

TABLE XX

PERCENTAGE OF CHILDREN USING SCHOOL HEALTH SERVICES DURING A 4-WEEK PERIOD, BY MOTHERS' EMPLOYMENT

Age Group of Children (yrs)	Mothers' Employment	Percentage of Children using School Health Service	No. of Children (= 100 per cent.)
5–9	Working Full-time	5	40
	Working Part-time	11	104
	Not Working	8	238
10 or More	Working Full-time	6	52
	Working Part-time	12	92
	Not Working	6	128

HEALTH OF MARRIED WOMEN WHO WORK

Hitherto we have been examining the evidence concerning the children of mothers who work. We now turn to a consideration of the health of the women themselves. We have already shown that women's employment is closely related to age, to the number of children, and to the age of the youngest child. These factors are also likely to affect women's health, their use of the health services, and their need and ability to stay in bed when unwell. We cannot, therefore, consider how far the married women who work differ in health, in the use of services, and in the extent to which they are "incapacitated", from married women who are not gainfully employed if we do not take into account the association of these factors with age and family size.

In this complex situation a much larger study than ours would be needed to allow us to assess the statistical significance of the relationship which we found between the employment of married women and the extent to which the general practitioner was consulted. We found, for example, that married women under 45 who worked had a higher average annual consultation rate than those who did not work (Table XXI).

TABLE XXI

AVERAGE ANNUAL NUMBER OF G.P. CONSULTATIONS FOR MARRIED WOMEN UNDER AGE 45, BY EMPLOYMENT AND BY NUMBER OF CHILDREN

Married Women under Age 45		Average Annual No. of General Practitioner Consultations	No. in Sample*
Employment	Working Full-time	5·3	62
	Working Part-time	4·9	77
	Not Working	4·1	203
No. of Children	0	6·1	19
	1	5·1	58
	2	4·1	120
	3	4·7	89
	4 or More	3·7	54

* Only those registered with the General Practitioners on the estate throughout 1954 have been included.

At the same time, the more children a married woman had, the lower was her consultation rate. It is possible, therefore, that the higher consultation rate of employed women was no more than a reflection of their other attribute—fewer children. Alternatively, the higher consultation rate of women with no children or only one child might reflect the fact that they were more likely to be gainfully employed.

A cross-analysis (Table XXII) appears to indicate that, in practice, both employment and size of family influenced the general practitioner consultation rate. On the one hand, among women under 45 with a similar number of children, those in paid employment visited their general practitioner more frequently than those not gainfully employed. On the other hand, among workers and non-workers alike, those with fewer children had a higher consultation rate than those with more children.

TABLE XXII

AVERAGE NUMBER OF GENERAL PRACTITIONER CONSULTATIONS OF MARRIED WOMEN UNDER AGE 45, BY EMPLOYMENT AND BY NUMBER OF CHILDREN

Married Women's Employment	Working				Not Working	
	Full-time		Part-time			
Number of Children	Average Annual G.P. Consultation Rate	No. in Sample	Average Annual G.P. Consultation Rate	No. in Sample	Average Annual G.P. Consultation Rate	No. in Sample
0 or 1	6·7	17	5·2	19	4·7	40
2	4·8	25	4·6	28	3·6	66
3 or More	4·8	18	4·9	29	4·1	94

If, however, we were to try to take into account, in addition to numbers of children, the age of the youngest child, which we know to be associated with employment, the resulting numbers would be so small as to make the analysis valueless.

It is platitudinous to point out that there is not a direct relationship between frequency of consultation with a general practitioner and actual illness. Many subjective factors will influence the way in which individuals use the service, among the most important of which is likely to be individual differences in the toleration of pain and discomfort. Moreover, social factors, not in themselves related to the illness, will also influence consultation rates. For example, in a society where employers and state demand that sickness absence shall be certified by a doctor, differences in the frequency with which individuals consult may be primarily related to their need to obtain certificates. Some such factor may be responsible for the observed differences between workers and non-workers in our sample. Again, it is probable that mothers of large families and those with several dependent children find it more difficult to spare the time to visit the doctor than women who have few children or none. This may explain the differences in the consultation rate with differing numbers of children.

DAYS IN BED

Similar considerations are likely to affect the frequency with which women stay in bed. There are difficulties in deciding what shall be called "a day in bed". For example, part of an invalid's day may be spent sitting in a wheeled chair, or household duties may force a housewife to get up from time to time. However, when we asked the women in our sample whether they "had stayed in bed for any days or half-days" during the 4-weeks between our two interviews, a higher proportion of those who were working than of those who were not working, and more of those who were working full-time than of those who were working part-time said "yes"*. When they were asked whether there was any occassion upon which they would have liked to stay in bed, however, the position was reversed (Table XXIII). It would seem, therefore, that among our sample of married women there was little difference between the working and non-working women in their assessment of their need to stay in bed. They differed primarily in their capacity to do so.

TABLE XXIII

PERCENTAGE OF MARRIED WOMEN UNDER 45 WITH DAYS IN BED (ACTUAL AND DESIRED), BY EMPLOYMENT AND BY NUMBER OF CHILDREN

Days in Bed		One or More Days in Bed during 4-week Period	Would have liked to stay in Bed if Possible	Sample (= 100 per cent.)
Married Women's Employment	Working Full-time	13	18	85
	Working Part-time	6	23	94
	Not Working	4	30	267
No. of Children	0	16	9	32
	1	7	32	82
	2	7	23	142
	3	8	31	114
	4 or More	1	29	72

These differences, like those in general practitioner consultations, were also shown to reflect to some extent the different family responsibilities of working and non-working women. The percentage of women with no children who stayed in bed was almost

* Numbers were too small to make comparisons by the number of days in bed.

double the percentage of those who would have liked to have stayed in bed if they could; whereas, among women with children and particularly among those with four children or more, the percentage who actually took to their beds was only a small fraction of those who would have liked to have done so.

We have already suggested that the observed differences between working and non-working women in frequency of general practitioner consultations or of days in bed can be a function of their social obligations—including family size—rather than a reflection of their real experience of illness. The answer to the questions put to all the women interviewed concerning their health at the time tend to confirm the impression that there is little discernible difference between the general level of health—if it is permissible to talk in this way—of working mothers and that of non-working mothers. For example, there was no significant difference in the number of illnesses reported by women grouped by age and employment experience (Table XXIV).

One or two differences do, however, emerge when we consider the proportion of married women reporting particular symptomatic conditions about which they were asked specifically. For example, constipation was reported more frequently by working women, particularly by those aged 45 to 54. In this latter age group, indigestion and "nerves" were also alleged much more frequently by the workers. On the other hand, "undue tiredness" was reported less frequently by the workers than by the non-workers (Table XXV).

These were the largest and most consistent differences between working and non-working women. Other differences were too small to warrant conclusions or were inconsistent, in the sense that the relative size of the proportions in different age groups were reversed, the workers in one age group and the non-workers in another being more prone to illness. All in all, therefore, we felt it legitimate to

TABLE XXIV

AVERAGE NUMBER OF ILLNESSES REPORTED BY MARRIED WOMEN UNDER 55, BY EMPLOYMENT AND AGE

Woman's Age (yrs)		Under 35		35–44		45–54		All Under 55	
		Average No. of Illnesses	No. in Sample	Average No. of Illnesses	No. in Sample	Average No. of Illnesses	No. in Sample	Average No. of Illnesses	No. in Sample
Married Women's Employment	Working Full-time	3·3	39	3·5	46	3·6	36	3·4	97
	Working Part-time	3·6	35	3·2	59			3·4	118
	Not Working	3·0	158	3·4	109	3·6	42	3·2	309
	All Groups	3·2	232	3·3	214	3·6	78		524

TABLE XXV

PERCENTAGE OF MARRIED WOMEN REPORTING VARIOUS CONDITIONS, BY EMPLOYMENT AND AGE

Woman's Age (yrs)		Under 35			35–44			45–54	
Employment		Working		Not Working	Working		Not Working	Working	Not Working
		Full-time	Part-time		Full-time	Part-time		Full- or Part-tine	
Condition Reported (per cent.)	Backache	28	34	21	33	31	41	33	48
	Breathlessness	18	20	16	13	24	32	25	38
	Catarrh	21	40	30	22	31	28	31	19
	Colds	23	37	22	17	20	21	22	17
	Constipation	21	23	15	26	10	10	17	—
	Coughing	10	23	18	22	15	19	14	7
	Depression	18	20	21	28	27	28	31	31
	Dizziness	5	9	12	9	14	21	14	21
	Eye Strain	23	17	22	17	15	16	30	36
	Headaches	41	40	38	39	42	43	39	33
	Indigestion	15	14	13	22	15	19	33	5
	Nerves	28	34	27	37	32	35	42	19
	Painful or Swollen Joints	18	17	6	24	20	26	25	24
	Palpitations	15	9	13	9	14	23	22	24
	Rheumatism	28	26	15	20	34	29	36	40
	Sleeplessness	5	9	14	24	7	11	28	36
	Swollen ankles	21	11	9	26	19	20	25	33
	Trouble with Teeth	8	14	18	7	12	19	11	5
	Undue Irritability	5	11	18	9	8	18	14	14
	Undue Tiredness	—	20	20	13	12	20	11	26
	Varicose Veins	13	17	22	24	20	20	17	26
	Weak or Painful Feet	10	—	10	17	24	13	25	12
	Women's Complaints	18	43	27	26	31	35	44	29
Total Women (= 100 per cent.)		39	35	158	46	59	109	36	42

conclude that differences in health are unlikely to lie behind the difference in general practitioner consultations rate or in days in bed between working and non-working married women.

SUMMARY

Information about the employment of married women living on an estate just outside London is related to various indices of their own and their children's health, incapacity, and use of the health services, as well as to their own ages and to the size, age, and composition of their families. Very few women with children under 2 years old went out to work, but about half of those whose youngest child was of school age did so. Little difference was observed in the reported health of the women who worked and that of those who did not; but those who did work tended to see their general practitioner rather more frequently and appeared to be better able to spend a day or two in bed if they felt like it than women who were not "gainfully employed".

The proportion of children whose mothers worked increased with the age of the child, the child's position in the family being also an important factor. The youngest member of the family was more likely to have a mother who worked than older members of the family had been at the same age. No excess of illness among children with working mothers was found; nor were there any overt signs that these children were affected emotionally. They had fewer absences from school than children whose mothers did not work, and, among children of school age, there was some indication that children whose mothers worked full-time were seen rather less frequently by the general practitioners than children whose mothers worked part-time or not at all. Among children under school age our figures are consistent with those of Douglas and Blomfield, who found that hospital admissions were relatively frequent among those whose mothers worked full-time.

In general discussions both health visitors and school teachers on the estate had spontaneously and almost unanimously expressed some criticisms of working mothers and their care of their children; but when they were asked to rate individual parents on certain scales there was no statistically significant evidence to show that families in which the mothers went out to work were particularly unsatisfactory. Other assessments by school teachers showed that, among primary school children, those with working mothers were considered to be rather more intelligent and their reading ability greater than that of other children.

We concluded that on this estate, with the existing pattern of employment among married women, there was no evidence to suggest that children whose mothers went out to work were relatively neglected or handicapped either physically, intellectually, or emotionally.

The programme of research of which this study formed a part was directed by Professor J. H. F. Brotherston, formerly Reader in Public Health at the London School of Hygiene and Tropical Medicine. We should like to thank him and Professor W. S. Walton for invaluable advice and criticism. We are also grateful to Mr. S. P. W. Chave, Miss M.W. Grant, and other colleagues in London and Edinburgh for data and assistance, to Dr. F Barasi of the Hertfordshire County Council, to the health visitors, teachers, and officials in the area, and to the interviewers and office staff, all of whom worked with us and made this study possible.

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