

The Relationship Between Marital Status and the Risk of Psychiatric Referral

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INTRODUCTION

There have been many studies of the incidence with regard to marital status of admissions to mental hospital. Each has reported the same pattern of highest rates for the divorced, followed by the widowed and single and lowest rates for the married, the pattern being the same for both sexes (Adler, 1953; Brooke, 1963; Dayton, 1940; Frumkin, 1955; Malzberg, 1964; Norris, 1956; Ødegaard, 1946; Stevens, 1969; Thomas and Locke, 1963).

Three main hypotheses have been suggested to explain the differences. 1. A single person, when developing a mental disease, is more readily admitted to a mental hospital, whereas the married are more frequently treated outside of institutions (hospitalization hypothesis). 2. Those who develop mental disease show, even before its outbreak, certain constitutional traits which act as marriage handicaps (selection hypothesis). 3. There are in married life certain factors which prevent the outbreak of mental illness even if there exists a certain degree of constitutional predisposition (protection hypothesis). No definite conclusions have been reached on the basis of these studies as to which hypothesis, or combination of hypotheses, is correct.

Hospital admissions are not representative, either clinically or socially, of all psychiatric referrals. The psychotic illnesses predominate among hospital in-patients, and the neuroses and personality disorders are under-represented. The distribution of demand for hospital care is affected by social factors, one of the most important of which is likely to be the presence or absence of a spouse and children. This study is the first to examine in detail the marital status of referrals to all types of psychiatric care (i.e. out-patients, in-patients, day-patients, all

forms of emergency and domiciliary contacts) which comprise all specialist-referred mental illness. New data are presented on the marital status referral patterns by age and sex for individual diagnostic groups, including neurotic depression, other neuroses, alcoholism, personality and behaviour disorders. The study also tests the hypothesis of differential hospitalization of the single and married by comparing the marital status of hospital admissions with referrals to extra-mural services.

METHOD

The study was carried out in North-East Scotland and was facilitated by the data collection system for the regional mental health services which is in the form of a psychiatric case register (Baldwin *et al.*, 1965; Baldwin, 1971). The area covered is that of the North-Eastern Regional Hospital Board (Scotland),* and data on the small percentage of patients living in that area who are treated at neighbouring psychiatric services are also included. Identifying and social data are collected from the patients by specially trained interviewers and are of high reliability (Baldwin, 1971). Clinical information is completed by the psychiatrists.

Patient population

This comprised all patients from the Region who entered psychiatric care for the first time in their lives between 1 January 1963 and 31 December 1967 and were then aged 15 years or over. There were in total 9,776 cases, 3,974 males and 5,802 females. Mental deficiency services in the region were not included.

* This comprises Aberdeen City, the Counties of Aberdeen, Banff, Kincardine and Moray and the Island Counties of Orkney and Shetland.

Each person was counted only once throughout the five year period, and data relate to the patient at the time of first contact with the service.

The estimate of the general population used was that published in the 1961 national census (General Register Office, 1963). Although it was appreciated that changes had taken place in the regional population between 1961 and the study period 1963–1967, after careful consideration the 1961 census was decided to be the best available measure. It was chosen in preference to the Annual Reports of the Registrar General for Scotland because the latter give data only for Scotland as a whole, and extrapolation from this to the North-East region was considered to be too inaccurate. Although the 1966 sample census was temporally more closely related to the study period, there were severe constraints on the use of these data (Benjamin, 1970).

It should be pointed out that until the end of the 1960s and the discovery of oil in the North Sea the population of North-East Scotland was a very stable one in comparison with most other parts of the country, and the changes taking place from year to year in the population were small (Baldwin, 1971). Radically different results would not have been obtained if either of the other population estimates had been employed.

Measurement

The basic measure used was the rate per thousand (or per ten thousand) general population, specific for sex, age and marital status.

The census data distinguish four marital groups: (1) single, (2) married, (3) widowed, and (4) divorced—persons separated and those married more than once being included with the married. These were, therefore, the marital classifications adopted.

RESULTS

The results are presented in three parts.

1. A comparison of referral rates of marital groups by sex and age, in order to determine whether the pattern is the same as that found in previous studies based on hospital admission data.

2. A comparison of diagnostic groups by marital status, sex and age in order to determine the contribution of each diagnostic group to the overall variations in the marital status of referrals.

3. A comparison of the marital status referral pattern of hospital admissions as opposed to referrals to extra-mural services in order to test the hypothesis of differential hospitalization of the single and married.

1. A comparison of marital status groups by sex and age

The numbers of persons first referred in the five year study period as a whole are shown by marital status and age in Tables I and II, and referral rates derived from these figures and the 1961 census data are shown in Tables III and IV.

Of the eight sex/marital status groups, divorced males had the highest rate of referral, almost twice as great as the next highest group, divorced females, who, in turn, had rates almost twice as high as the next group, widowed

TABLE I
North-East Scottish Psychiatric Services
Number of males first referred in five years (1963–1967) by marital status and age

Marital status	15–19	20–24	25–34	35–44	45–54	55–64	65–74	75 and over	Not known	Total
Single	370	273	245	191	105	88	51	50	42	1,415
Married	6	84	414	503	423	336	144	120	70	2,100
Widowed	—	1	3	8	24	47	63	141	4	291
Divorced	—	0	11	17	12	16	2	0	1	59
Not known	6	8	8	12	11	16	10	20	18	109
Total	382	366	681	731	575	503	270	331	135	3,974

TABLE II
North-East Scottish Psychiatric Services
Number of females first referred in five years (1963-1967) by marital status and age

Marital status	15-19	20-24	25-34	35-44	45-54	55-64	65-74	75 and over	Not known	Total
Single	412	235	171	147	135	139	151	196	50	1,636
Married	51	308	846	724	522	333	217	115	126	3,242
Widowed	—	2	8	30	84	120	212	314	18	788
Divorced	—	4	26	16	13	11	3	2	1	76
Not known	0	4	5	7	5	6	9	15	9	60
Total ..	463	553	1,056	924	759	609	592	642	204	5,802

TABLE III
North-East Scottish Psychiatric Services
Rates per thousand male population by marital status and age

Marital status	15-19	20-24	25-34	35-44	45-54	55-64	65-74	75 and over	Total
Single	22	26	32	47	28	30	30	29
Married	32*	21	19	21	17	17	14	19
Widowed	—	333*	79*	51*	44	32	26	38
Divorced	—	—	157	132	86	150	56*	120

* Rates based on less than 10 patients.

TABLE IV
North-East Scottish Psychiatric Services
Rates per thousand female population by marital status and age

Marital status	15-19	20-24	25-34	35-44	45-54	55-64	65-74	75 and over	Total
Single	25	31	33	33	26	23	31	31
Married	45	38	33	29	21	19	26	29
Widowed	—	100*	56*	37	33	21	27	31
Divorced	—	444*	164	39	41	54	38*	64

* Rates based on less than 10 patients.

males. Widowed females, single females, single males and married females ranked next highest in order, but differed overall by only 2.5 per 1,000. Married males had the lowest rate, nearly 10 per 1,000 lower than the married females.

The divorced

Among males differences between the divorced and married groups were significant at ages 35 to 44 ($\chi^2 = 75.7$; $p < .001^*$) and 55 to 64 ($\chi^2 = 110.7$; $p < .001$). Among females

* d.f. = 1 in this and all subsequent χ^2 tests.

aged 20 to 34, the divorced had significantly higher referral rates than the married ($\chi^2 = 100.1$; $p < .001$), the single ($\chi^2 = 131.6$; $p < .001$) and the widowed ($\chi^2 = 10.8$; $p < .01$). In age groups 45 to 54 and 55 and over, divorced females had rates significantly higher than married women ($\chi^2 = 6.1$; $p < .02$, and $\chi^2 = 11.8$; $p < .001$).

The widowed

Widowed males had significantly higher rates of referral than married males throughout the whole age range: 20-45 ($\chi^2 = 13.4$; $p < .001$),

45-54 ($\chi^2 = 24.1$; $p < .001$), 55-64 ($\chi^2 = 18.0$; $p < .001$), 65-74 ($\chi^2 = 20.3$; $p < .001$) and 75 and over ($\chi^2 = 8.3$; $p < .01$).

From 20 to 34, although rates for widowed females were unreliable owing to small numbers, they were markedly higher than rates for the single or married. At 35 to 44 the widowed ranked higher in referrals than the single or married, but differences were not significant. Widows aged 45 to 54 had significantly higher referral rates than married females ($\chi^2 = 14.7$; $p < .001$). There were no significant differences in rates of single, married and widowed females at 55 to 64 or 65 to 74. At age 75 and over the earlier pattern was reversed, widows having significantly lower referral rates than single females ($\chi^2 = 20.2$; $p < .001$) or married females ($\chi^2 = 7.9$; $p < .01$). Thus, although widowed males of all ages had significantly higher referral rates than married males, results for females varied considerably with age.

The single and married

Single males had significantly higher referral rates than married males at ages 25 to 34 ($\chi^2 = 45.9$; $p < .001$), 35 to 44 (100.0; $p < .001$), 45 to 54 ($\chi^2 = 24.4$; $p < .001$), 55 to 64 ($\chi^2 = 24.5$; $p < .001$), 65 to 74 ($\chi^2 = 25.0$; $p < .001$), and 75 and over ($\chi^2 = 10.5$; $p < .01$), i.e. in all ten-year age groups over 25.

Married females had significantly higher referral rates than single females at ages 15 to 19 ($\chi^2 = 15.6$; $p < .001$) and 20 to 24 ($\chi^2 = 5.3$; $p < .05$). Single females ranked higher in referral rates than married females in each ten-year age group from age 35, but only in age group 55 to 64 was the difference significant ($\chi^2 = 3.9$; $p < .05$). Single females did not, therefore, on the whole, have significantly increased risks of referral in comparison with married females.

2. A comparison of marital status groups by diagnosis

The primary diagnosis on initial contact with psychiatric services was used to group patients into clinical categories. Diagnostic classification was based on the International Classification of Diseases, Seventh Revision, and the main groups together with their I.C.D. codes were as follows: (1) Schizophrenia (300); (2) Manic

depressive reaction (301); (3) Ageing (304, 305, 306, 794); (4) Other and unspecified psychosis (309); (5) Alcoholism (307, 322); (6) Character and behaviour disorders (320, 321); (7) Neurotic depression (314); (8) Other neuroses (310-313, 315-318). The number of referrals in the groups Involutional melancholia (302), Paranoia (303) and Psychosis of other aetiology (308) was too small to subdivide by marital groups, and these were excluded from analyses.

The widowed and divorced

Relative frequency of disorders. Very high proportions of referrals of the widowed and divorced were accounted for by a few specific diagnostic groups (Table V). Among widowed referrals under 65 years, neurotic depression accounted for almost 30 per cent of male referrals and over 40 per cent of female referrals. At age 65 and over, disorders associated with ageing not surprisingly accounted for almost half the widowed referrals, most of the remaining referrals being diagnosed as either neurotic depression or psychosis of an unspecified type.

Alcoholism accounted for almost 40 per cent of referrals of divorced males, while neurotic depression accounted for over 40 per cent of divorced female referrals. Character and behaviour disorders formed a sizeable proportion of the remaining divorced referrals.

The single and married

A comparison by diagnostic categories. Referral rates per ten thousand population by diagnosis and age are shown for the single and married in Tables VI and VII.

Schizophrenia

Single males had significantly higher rates than married males (25 to 34, $\chi^2 = 73.8$; $p < .001$; 35 to 44, $\chi^2 = 134.1$; $p < .001$), and single females had significantly higher rates than married females (25 to 34, $\chi^2 = 29.8$; $p < .001$; 35 to 44, $\chi^2 = 37.6$; $p < .001$). The predominance of the single was, however, greater among males.

Manic depressive reaction

From age 25 and over single males ranked higher in referrals than married males, with

TABLE V
North-East Scottish Psychiatric Services
 Widowed and divorced persons aged 15 and over first referred in five years (1963-1967). Relative frequency of disorders accounting for at least 10 per cent of total referrals in each age, sex and marital status group
 (Arranged in descending order of frequency, with percentage contribution of each disorder to total in age group)

Marital status	Age	Disorder	Number	Per cent
Widowed males	25-64	Neurotic depression	24	29.3
		Alcoholism	23	28.0
	65 and over	Ageing	99	48.5
		Psychosis unspecified	32	15.7
		Neurotic depression	23	11.3
Widowed females	25-64	Neurotic depression	105	43.4
		Manic depressive reaction	47	19.4
	65 and over	Ageing	239	45.5
		Neurotic depression	88	16.8
		Psychosis unspecified	55	10.5
Divorced males	25 and over	Alcoholism	23	39.0
		Character and behaviour disorders	7	11.9
Divorced females	20 and over	Neurotic depression	32	42.1
		Character and behaviour disorders	9	11.8

TABLE VI
North-East Scottish Psychiatric Services
 Males aged 15 and over first referred in five years (1963-1967). Rates per ten thousand population by marital status, age and diagnosis

Age and marital status	Schizophrenia	Manic depressive reaction	Ageing	Psychosis unspecified	Alcoholism	Character and behaviour disorders	Neurotic depression	Other neuroses	
15-24	Single	17	4	0	3*	6	80	27	29
	Married	5	7*	0	0	5*	77	60	36
25-34	Single	62	12*	0	5*	34	52	41	53
	Married	8	8	0	1*	32	40	33	39
35-44	Single	93	27	0	2*	89	44	54	37
	Married	7	13	0	2*	49	28	46	33
45-54	Single	30	19*	0	8*	89	21*	40	13*
	Married	4	14	2*	3*	40	16	43	19
55-64	Single	10*	67	13*	10*	40	3*	64	10*
	Married	0	21	8	15	22	10	44	15
65-74	Single	12*	35*	47*	41*	35*	6*	35*	18*
	Married	3*	18	29	17	9*	6*	27	3*
75 & over	Single	0	33*	221	77*	11*	0	77*	0
	Married	0	24*	163	57	3*	0	24*	3*

* Rates based on less than 10 patients.

TABLE VII
North-East Scottish Psychiatric Services
 Females aged 15 and over first referred in five years (1963-1967). Rates per ten thousand population by marital status, age and diagnosis

Age and marital status	Schizophrenia	Manic depressive reaction	Ageing	Psychosis unspecified	Alcoholism	Character and behaviour disorders	Neurotic depression	Other neuroses
15-24 Single	10	3*	0	0	0	77	66	51
Married	2*	15	0	1*	1*	79	148	71
25-34 Single	39	14*	0	2*	4*	56	93	45
Married	8	16	0	2*	1*	40	140	72
35-44 Single	56	34	0	7*	2*	25	97	40
Married	13	32	0	2*	5	26	117	43
45-54 Single	26	30	2*	7*	7*	7*	82	19
Married	6	32	1*	6	8	16	76	21
55-64 Single	20	36	13*	10*	7*	8*	63	15*
Married	7	35	11	7	4*	7	69	17
65-74 Single	14*	51	96	14*	4*	12*	51	16*
Married	5*	42	62	27	1*	6*	69	10*
75 & over Single	3*	18*	356	70	3*	3*	43	12*
Married	0	24*	310	80	5*	5*	52	5*

differences being significant at ages 35 to 44 ($\chi^2 = 4.8$; $p < .05$) and 55 to 64 ($\chi^2 = 20.3$; $p < .001$). Among females aged 15 to 24 the married had significantly higher rates of referral than the single ($\chi^2 = 15.6$; $p < .001$). From age 25 rates for single and married females were strikingly similar.

Disorders associated with ageing

The single ranked higher in referrals than the married in both sexes and in each age group over 55, but the differences were significant only among females aged 65 to 74 ($\chi^2 = 4.8$; $p < .05$).

Psychosis, other and unspecified

There was little difference in rates for the single and married in either sex up to age 65. Among males aged 65 and over the single had significantly higher rates than the married ($\chi^2 = 4.9$; $p < .05$), but there were no significant differences in referrals of single and married females in that age group.

Alcoholism

There were no significant differences in referrals of single and married males in the youngest and second youngest age groups, but from age 35 and over single males had significantly higher rates of referral than married males (35 to 44, $\chi^2 = 9.9$; $p < .01$; 45 to 54, $\chi^2 = 17.0$; $p < .001$; 55 to 74, $\chi^2 = 9.2$; $p < .01$). The female rates were consistently low and showed little variation by age or marital status.

Character and behaviour disorders

At age 15 to 19 married females had significantly higher rates of referral than single females ($\chi^2 = 5.3$; $p < .05$). There were no significant differences in referrals of the single and married in any other age/sex group.

Neurotic depression

Married males aged 15 to 24 had significantly higher rates of referral than single males ($\chi^2 = 13.2$; $p < .001$). There were no significant

differences in referrals of single and married males in any decennial age group from 25 to 64. At age 65 and over single males had significantly higher rates than married males ($\chi^2 = 4.2$; $p < .05$). Among females the married had significantly higher rates of referral than the single at ages 15 to 19 ($\chi^2 = 12.4$; $p < .001$), 20 to 24 ($\chi^2 = 5.6$; $p < .02$) and 25 to 34 ($\chi^2 = 7.3$; $p < .01$). There were no significant differences in referrals of single and married females from age 35.

Other neuroses

Among males there were no significant differences in referrals of the single and married in any decennial age group. At ages 25 to 34 married females had significantly higher rates of referral than single females ($\chi^2 = 4.9$; $p < .05$), this difference being attributable mainly to the neurotic subgroups of anxiety neurosis, phobic reaction and neurosis with somatic symptoms. From age 35 and over there were no significant differences in referrals of single and married females.

3. *A comparison of the marital status of hospital admissions with referrals to extra-mural services*

Rates of admission of new patients to mental hospital and referral of new patients to extra-mural services are given by sex and age for the single and married in Tables VIII and IX.

Males

Single males had significantly higher rates of admission to mental hospital than married males at ages 25 to 34 ($\chi^2 = 22.1$; $p < .001$), 35 to 44 ($\chi^2 = 92.5$; $p < .001$), 45 to 54 ($\chi^2 = 43.2$; $p < .001$), 55 to 64 ($\chi^2 = 43.3$; $p < .001$), 65 to 74 ($\chi^2 = 21.7$; $p < .001$) and 75 and over ($\chi^2 = 10.1$; $p < .01$), i.e. in each ten year age group over 25. Among referrals to extra-mural services the single males ranked higher than married males at all ages but differences reached significance only in age groups 25 to 34 ($\chi^2 = 20.5$; $p < .001$), 35 to 44 ($\chi^2 = 28.1$; $p < .001$), and 65 to 74 ($\chi^2 = 7.1$; $p < .01$).

TABLE VIII
North-East Scottish Psychiatric Services
Males aged 15 and over first referred in five years (1963-1967). Rates per thousand population by marital status, age and type of care on initial contact

Hospital admissions								
Marital status		15-24	25-34	35-44	45-54	55-64	65-74	75 and over
Single	.. ..	2	8	17	12	13	12	23
Married	.. ..	2	4	5	4	4	4	10
Ratio of single/married		1.0	2.0	3.4	3.0	3.3	3.0	2.3
Extra-mural services								
Marital status		15-24	25-34	35-44	45-54	55-64	65-74	75 and over
Single	.. ..	20	23	28	16	15	17	32
Married	.. ..	19	15	16	13	13	10	23
Ratio of single/married		1.1	1.5	1.8	1.2	1.2	1.7	1.4
Ratio of single/married for hospital admissions to single/married for extra-mural services		0.9	1.3	1.9	2.5	2.8	1.8	1.6

TABLE IX
North-East Scottish Psychiatric Services
Females aged 15 and over first referred in five years (1963-1967). Rates per thousand population by marital status, age and type of care on initial contact

Hospital admissions								
Marital status		15-24	25-34	35-44	45-54	55-64	65-74	75 and over
Single	.. ..	2	6	11	7	8	10	16
Married	.. ..	4	4	4	4	4	7	11
Ratio of single/married		0.5	1.5	2.8	1.8	2.0	1.4	1.5
Extra-mural services								
Marital status		15-24	25-34	35-44	45-54	55-64	65-74	75 and over
Single	.. ..	25	26	21	18	15	20	44
Married	.. ..	35	30	24	17	15	19	43
Ratio of single/married		0.7	0.9	0.9	1.1	1.0	1.1	1.0
Ratio of single/married for hospital admissions to single/married for extra-mural services		..	0.7	1.7	3.1	1.6	2.0	1.5

Females

At age 15 to 24 the married had rates significantly higher than the single among hospital admissions ($\chi^2 = 10.4$; $p < .01$), and among referrals to extra-mural services ($\chi^2 = 23.9$; $p < .001$). Among hospital admissions from age 25 single females ranked higher than married females, these differences proving significant at ages 25 to 34 ($\chi^2 = 7.3$; $p < .01$), 35 to 44 ($\chi^2 = 35.5$; $p < .001$), 45 to 54 ($\chi^2 = 8.8$; $p < .01$), 55 to 64 ($\chi^2 = 15.4$; $p < .001$) and 65 to 74 ($\chi^2 = 5.0$; $p < .05$). Among referrals to extra-mural services there were no significant differences in referrals of single and married females. Thus the pattern of referral of single and married females aged 25 and over is very different among hospital admissions as compared with referrals to extra-mural services. Only among patients admitted to hospital did single females have significantly higher rates than married females.

Ratios of single/married

The differences between referral rates of the

single and married were greater among persons referred directly to hospital than among those referred initially to extra-mural services. This is demonstrated by the bottom row of figures in Tables VIII and IX respectively, which show the ratio of single/married for hospital admissions to the ratio of single/married for referrals to extra-mural services. A value of 1 for this ratio would indicate that there was no difference in the relative proportions of single and married persons referred to the two types of care. It will be seen that for every age group over 25 this ratio is greater than 1, indicating the relative excess in the rates of single persons over married persons admitted to hospital as compared with those referred to extra-mural services.

DISCUSSION

The results show that a very different pattern of referral by marital status exists among referrals to all types of psychiatric care as opposed to those admitted to mental hospital, and this suggests that a reappraisal of the

hypotheses regarding marital status and mental illness is necessary in the light of the present findings.

The single and married

The hypothesis of differential hospitalization of the single and married, rejected by Ødegaard, has been upheld in the present study—single persons with mental disorders are more likely to be admitted to hospital than their married counterparts. Since the time when Ødegaard did his study the use of morbidity statistics based on hospital admissions as measures of incidence of disease has been questioned (Cooper, 1966; Hill, 1962; Terris, 1965). The present study proves that because of the process of differential hospitalization of the single and married reliable judgements about the incidence of mental illness in different marital groups cannot be made on the basis of hospital admission studies alone.

Considering only referrals to extra-mural services, single males in each decennial age group from 25 had higher rates of referral than married males. Since the hypothesis of hospitalization does not apply, community care not acting as a substitute for domestic support, this suggests a more direct relationship between marital status and mental illness in men. The question remains, however, as to why single men should have increased risks of referral in comparison with married men, while single women do not have increased risks of referral in comparison with married women. It might be argued that a single man, when suffering from symptoms of mental illness is more likely to be referred by his general practitioner to a psychiatrist for treatment, whilst a single woman is treated by the general practitioner himself; or that a married woman is more likely to be referred than a married man, and that results are explicable in terms of differential referral. Work which supports this suggestion has been undertaken in the North-East of Scotland by Gardiner, Petersen and Hall (1973). However, this seems unlikely as the total explanation. Two American surveys of mental illness in the community found that a higher proportion of single males were maladjusted than single females (Knupfer, Clark and Room, 1966;

Srole, Langer, Michael and Opler, 1962), while studies of mental illness in general practice have shown that married men have significantly lower rates than single men, but rates for single and married women do not differ significantly (Cooper, 1966; Shepherd, Cooper, Brown and Kalton, 1966). As suggested by Ødegaard (1946), some variation in the selection process for marriage may account for these differences, or perhaps marriage provides a protection only for men against the development of mental illness.

It is difficult to find an answer to the question of to what extent selective and to what extent reactive mechanisms account for the differences in referred mental illness in different sex/marital status groups. Results of the present study do show that there are differences in the referral patterns in different diagnostic groups, and different explanations may be necessary for different diagnostic categories. Among males it is for the psychoses that the single have particularly high rates of referral in comparison with the married, while differences between the groups are less pronounced for the neuroses and character and behaviour disorders. Among females, the single have higher rates than the married for schizophrenia, while rates for the other psychoses and the neuroses in single and married females are similar, the young married group having even higher rates than their single counterparts for neurotic depression and character and behaviour disorders. With some reservations, the results support the work of Miller and Barnhouse (1967) among mental hospital patients, which showed that the problems of the married were more often of an interpersonal and environmental nature than those of the single, and fewer overt psychotic symptoms were exhibited by the former group. It seems reasonable to apply the selection hypothesis to male psychotics and female schizophrenics and suggest that early psychotic symptoms act as marriage handicaps, reducing the probability of marriage in these groups. This has already been proved to be so among female schizophrenics (Stevens, 1969). The hypothesis of differing reactions to the single or married state leading to different referral rates seems more likely to apply to the neuroses, where social

and environmental influences are generally regarded to be more important. Contrary to the original statement of the hypothesis of protection, however, among young women the married state often seems to act as an additional strain leading to the development of mental illness.

The widowed

There is a well documented literature which discusses the emotional strains suffered by the widowed as a result of the crisis of bereavement. This leads to increased risks of psychiatric referral (Stein and Susser, 1969), excess mortality (Kraus and Lilienfeld, 1959; Young, 1963) and high suicide rates (MacMahon and Pugh, 1965). The present study shows that it is particular groups among the widowed who have increased risks of psychiatric referral, these groups being widowed males of all ages and young widowed females. Again there are differences between the sexes in the risks of referral among the widowed. The higher risks of referral for widowed males could be attributed to the loss of the hypothesized protective influence against the development of mental illness afforded by marriage, a protection which does not seem to exist for women, judging by the results for the single and married. Similarly, if the single state is more stressful for men than for women, so probably is the widowed state.

Among the old it might be expected that the widowed would have increased risks of referral in comparison with the married, since the widowed would more often be living alone and be less likely to have someone to care for them. Once again, this appears to be so only among the men. Since women generally marry men as old or older than themselves, and since men have a shorter expectation of life, to have a husband alive at age 75 and over is the exception rather than the rule and may constitute more of a burden than a protection for women. However, not only do widows aged 75 and over not have increased risks of referral in comparison with their married counterparts, they actually have significantly less chance of being referred than married women of this age. The explanation for this may lie in the fact that by the age of 75 the majority of widows will have been

widowed for a considerable number of years (e.g. in 1965, statistics for Scotland (Annual Report of Registrar General) showed that at age 30–34, 211 women became widows and the estimated mid-year population of widows was 700, i.e. a rate of 301 per 1,000, whereas at 75 and over 2,248 women became widows and the mid-year population of widows was 77,770, i.e. a rate of 29 per 1,000. A much higher proportion of men became widowers at age 75 and over, a rate of 68 per 1,000 widowed males in the community). Those who have been widowed for some time may have had a referral associated with the high risk period soon after bereavement. Thus a lower proportion of widows in the oldest age group would be at risk of entering psychiatric services as new patients in comparison with their married counterparts.

The divorced

The very high rates of referral to psychiatric services among the divorced of both sexes confirm all previous findings whether among hospital admissions (Adler, 1953; Locke, Kramer and Pasamanick, 1960; Malzberg, 1964; Ødegaard, 1946; Thomas and Locke, 1963), psychiatric referrals (Gardner, Miles, Bahn and Romano, 1963; Innes and Sharp, 1962; Jaco, 1957; Rosen, Bahn and Kramer, 1964), and in the community (Blumenthal, 1967; Srole, Langer, Michael and Opler, 1962). The results of the present study do not clarify whether divorce can in itself cause mental illness or whether it serves merely as an indication that mental illness is likely to have existed. What it does show is that a high proportion of the referrals of the divorced can be attributed to two diagnostic groups—alcoholism among males and depression among females. It certainly seems likely that the additional strains of the divorce proceedings will increase such problems, and this may lead to the referral taking place after the divorce, although the symptoms may have originated earlier.

SUMMARY

The relationship between marital status and the risk of psychiatric referral was examined among all new patients from the North-East Scottish Region entering psychiatric care for the

first time in their lives between 1963 and 1967, a total of 9,776 cases. A comparison of referral rates by marital status, sex and age showed that the main marital groups with high risks of referral to psychiatric services were the divorced of both sexes, widowed males, widowed females aged 20-54, married females aged 16-24 and single males older than 25. These findings differ from those of previous studies based only on hospital admission data.

A comparison of diagnostic groups by marital status, sex and age revealed important differences in the marital status distribution in different diagnostic groups. Single males had higher rates of referral than married males for the psychoses and alcoholism, but for the neuroses and personality disorders rates were similar for the two groups. Single females had increased risks of referral in comparison with married females only for schizophrenia.

The hypothesis that a single person when developing symptoms of mental illness is more likely to be admitted to mental hospital, whereas a married person is more likely to be treated in the community, was proved true. Proportionately more single persons of both sexes were admitted directly to hospital than were referred to extra-mural psychiatric services. Results are discussed in relation to previous studies and the hypotheses regarding marital status and mental illness are reappraised in the light of the present findings.

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