# NEW DATA ON MARRIAGE AND MENTAL DISEASE: THE INCIDENCE OF PSYCHOSES IN THE WIDOWED AND THE DIVORCED.

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IT may be regarded as an established fact that the incidence of mental disorder is much higher in the single than in the married. In a previous paper two possible explanations were discussed:

1. There is a *selection by marriage*, whereby individuals who are personally and socially handicapped tend to remain single. Among such possible marriage handicaps there are certain personality traits which correlate markedly with a predisposition towards certain forms of mental disease, in particular schizophrenia.

2. There is a *protection by marriage*, which protects the married against the outbreak of mental disease, to which the same individual would have succumbed had he remained single.

The widowed and the divorced may offer a clue to the solution of this problem, because in these groups the hypothetical protection has ceased to exist, while the factor of selection remains, and so can be studied in isolation. Actually, however, this experiment is not so clear-cut. The widowed do not merely lose the social and personal protection of married life, but will in many respects have to adjust to more serious problems than if they had never been married at all. This is far from being a general rule, however, and a number of widows or widowers continue to enjoy at least some of the privileges of married life, such as home and children.

As to the factor of selection, it actually does not remain the same in the widowed and the divorced, because a fairly large number of them re-marry. It is well known that those who re-marry represent a positive selection with regard to physical health and social success, and most likely they represent a similar selection with regard to personality type and mental health.

In the present paper this problem has been studied on a somewhat enlarged material, consisting of all first-admissions to mental hospitals in Norway 1931 to 1945, a total of 23,115, including 1,441 widowed and 515 divorced patients. In Table I, the single and the married are compared, the widowed and the divorced being included with the married. The results are practically identical with those previously published, and a detailed discussion is therefore omitted. Evidently the predominance of mental disease among the single varies according to sex and to psychiatric diagnosis. It is somewhat more marked in men than in women, and it is decidedly higher for schizophrenia than for manic-depres-

TABLE I.—*Rates of Admission per* 100,000 *per year for Single and Married.*

The widowed and the divorced are included with the married. The rates are standardized, and include all age-groups from 20 to 89 years.

| | Men. | | | Women. | | |
|---|---|---|---|---|---|---|
| | Single. | Married. | S./M. | Single. | Married. | S./M. |
| Psychosis with mental deficiency | 71 | 7 | 9·7±1·69 | 55 | 11 | 5·1±0·69 |
| Epileptic psychosis | 21 | 5 | 4·4±1·31 | 13 | 5 | 2·8±0·59 |
| Schizophrenia | 534 | 124 | 4·3±0·24 | 495 | 133 | 3·7±0·14 |
| Reactive, and ps. with const. psychop. inf. | 154 | 76 | 2·1±0·14 | 218 | 116 | 1·9±0·09 |
| Symptomatic psychosis | 29 | 14 | 2·0±0·30 | 31 | 32 | 0·9±0·11 |
| Senile and arteriosclerotic | 96 | 62 | 1·6±0·14 | 121 | 60 | 2·0±0·12 |
| Manic-depressive | 92 | 62 | 1·5±0·12 | 121 | 91 | 1·3±0·08 |
| Alcoholic psychosis | 34 | 22 | 1·5±0·20 | — | — | — |
| Organic psychosis | 25 | 17 | 1·5±0·23 | 17 | 12 | 1·5±0·23 |
| General paresis | 76 | 57 | 1·3±0·11 | 19 | 24 | 0·8±0·10 |
| Other and indefinite forms | 6 | 3 | 1·9±0·80 | 4 | 5 | 0·8±0·24 |
| All diagnoses | 1,138 | 449 | 2·5±0·06 | 1,094 | 489 | 2·2±0·05 |

sion. It is low in symptomatic and organic psychoses of all types (except epileptics), while it is particularly high in psychoses with mental deficiency. These facts all seem to point towards the factor of selection : The pre-psychotic marriage handicap is clearly largest for the frequently schizoid and shut-in schizophrenics, as well as for epileptics and mental defectives.

In Table II a similar comparison is made between the married, the widowed and the divorced. The single are left out, as their age distribution differs so

TABLE II.—*Rates of Admission per* 100,000 *per year for Married, Widowed and Divorced,* 30–69 *years of age.*

The rates are standardized, the total population of Norway, male and female, married and formerly married, being used as a standard.

| | Men. | | | Women. | | |
|---|---|---|---|---|---|---|
| | Married. | Widowed. | Divorced. | Married. | Widowed. | Divorced. |
| Schizophrenia | 101±3·8 | 189±37 | 501±66 | 137±4·5 | 159±19 | 486±41 |
| Reactive | 88±3·5 | 136±30 | 274±49 | 131±4·4 | 195±22 | 314±41 |
| Manic-depressive | 86±3·5 | 123±26 | 101±29 | 117±4·3 | 129±14 | 166±31 |
| Senile (50–89 years) | 210±9·3 | 188±16 | 394±101 | 177±11 | 249±13 | 549±112 |
| Alcoholic | 26±1·9 | 31±13 | 212±39 | 4±0·8 | 4±2·5 | 58±18 |
| General paresis | 77±3·3 | 102±25 | 278±49 | 30±2·2 | 43±9 | 132±27 |
| Epileptic and with mental deficiency | 13±1·3 | 11±10 | 86±27 | 13±1·4 | 17±5 | 103±24 |
| Remaining diagnoses | 59±2·9 | 41±14 | 279±49 | 65±3·1 | 70±13 | 95±24 |
| All diagnoses | 490±8·4 | 675±64 | 1,780±134 | 548±9·1 | 691±38 | 1,452±91 |

markedly from that of the rest that their inclusion would tend to confuse the picture even with rates standardized for age. In spite of the somewhat large standard errors, the tendency is clear. The incidence of mental disease is somewhat higher in the widowed than in the married, but the difference is not nearly of the same order as that between the married and the single. This finding is not in favour of the hypothesis of "protection by marriage." The loss of such protection by the death of the spouse may not be a total one, but

it would certainly be expected to result in a much more marked increase in the morbidity than is actually found in the widowed.

The moderately raised incidence rates in the widowed result more probably from a selection by re-marriage, and a more detailed statistical analysis supports this view. The difference between the married and the widowed is most marked in the male sex, which is just what would be expected as a result of the selection by re-marriage, because widowers re-marry more frequently than widows. Furthermore the excess morbidity of the widowed is higher for schizophrenia than for manic-depression, and the personality background of schizophrenia is much more likely than that of manic-depression to constitute a marriage handicap (or, in this case, a re-marriage handicap).

The excessively high morbidity rates found for the divorced clearly result from selection rather than from any loss of protection by marriage. In addition to the pre-psychotic personality background, incipient psychotic symptoms play an important role in this connection, by leading to marital incompatibility and divorce before they are recognized as pathological or abnormal.

In Table III age-specific rates are compared. In the male sex the excess morbidity of the widowed is very high in the youngest age-groups, while above

TABLE III.—*Rates of Admission per* 100,000 *per year for Separate Age-groups, all Diagnoses.*

| | Men. | | | | Women. | | | |
|---|---|---|---|---|---|---|---|---|
| | Single. | Married. | Widowed. | Divorced. | Single. | Married. | Widowed. | Divorced. |
| 25–29 . | 122 | 22 | 117 | 124 | 107 | 34 | 44 | 47 |
| 30–39 . | 183 | 42 | 80 | 196 | 160 | 55 | 61 | 121 |
| 40–49 . | 174 | 53 | 72 | 200 | 156 | 58 | 78 | 182 |
| 50–59 . | 132 | 50 | 54 | 180 | 135 | 56 | 82 | 139 |
| 60–69 . | 124 | 53 | 54 | 102 | 112 | 48 | 50 | 135 |
| 70–79 . | 96 | 54 | 51 | 179 | 97 | 39 | 53 | 185 |
| 80–89 . | 76 | 84 | 40 | 71 | 87 | 50 | 44 | 78 |

the age of 50 it is no longer noticeable. Now re-marriage is more likely to occur among young widowers, and men below the age of 50 *who have remained widowers* are consequently likely to represent a negative selection with regard to health and to social and personal adjustment.

In the female sex the influence of the age factor is much less clear and pronounced—probably because remarriage is less frequent in widows than in widowers and because selection is less effective in the female sex. The excess morbidity of the widows has a decided maximum in the fifties, which is not found in the male sex. It will be shown later that depressive psychoses elicited by the death of the spouse are fairly common in women of this age.

In the male sex senile and arterio-sclerotic psychoses (particularly above the age of 80) are actually more frequent in the married than in the widowed. This exception to the general rule is not easily explained. It is possible that to an old man married life may represent some sort of stress, but more likely variations in the tendency to have senile cases hospitalized are responsible.

In spite of the numerous sources of error the conclusion seems justified that the statistical data give little or no support to the hypothesis of a protection

by marriage. The hypothesis of a selection (by marriage and by re-marriage) is decidedly more compatible with the statistical findings. Evidently a closer examination of the individual cases is needed for a further approach to the solution of our problem, and it is the main weakness of the statistical method that such an examination of a sufficiently large number of patients is impracticable. As a compromise a clinical study has been made of the case-histories of 206 unselected patients from the Gaustad Mental Hospital, who were widowed or divorced on admission.

*The Widowed.*

In the widowed the clearest evidence of etiological connection between the outbreak of psychosis and the cessation of married life is found in the group of 35 widows admitted for *depressive psychoses*. In 8 of these cases it seems fairly certain that the death of the husband was a direct cause for the depressive reaction. These patients were women in the late forties or the fifties, most often with grown-up children. The death of their husband occurred after prolonged illness, which had resulted in much mental strain and financial difficulties. In two of the cases the depression started already during the last months of the husband's life. The content of the depression was mostly a feeling of grief and lonesomeness—missing even the hardships of nursing a chronically invalid husband, and feeling useless and out of place even with kind relatives. In two cases financial problems were (at least consciously) the main concern of the patient. Only in one case did the depression centre around self-accusatory delusions (concerning marital incompatibility of long standing). From the case-histories one gets the impression that these women broke down under conditions not definitely more unfortunate than those of the average widow, but on the other hand there is not much evidence of any predisposition towards neurotic or depressive reactions. One of these eight widows was decidedly overdependent and infantile in her relations with her husband, another had suffered two previous depressions.

In five additional patients the connection between the death of the husband and the depression is rated as *possible*. In one case the causality was reversed, and the patient's disease (an agitated, hypochondriacal depression of several months' standing) actually was the cause of her husband's death by suicide.

In the male sex depressive psychoses caused by the death of the spouse seem to be much less common. Among our 51 widowers 11 were suffering from depressive psychoses, but in one single case only was the causal connection with the death of the wife probable, and in addition to this four cases were rated as possibles.

The group of *schizophrenia* and paranoid conditions contains 11 widowers and 15 widows, but in none of these cases the death of the spouse seems to have been an etiological factor of primary importance. Ten cases are listed as possibles, however. Two widows developed paranoic reactions in connection with economic and social difficulties following the death of their husband. Two widowers suffered from paranoid prison psychosis, while they were serving sentence for incestuous relations with their daughters, which

TABLE IV.—*The Causal Connection between Death of the Spouse and Psychosis.*

| | | The death of the spouse caused the psychosis. | | The death of the spouse led to hospitalization. | |
|---|---|---|---|---|---|
| Men : | No. | Probably. | Possibly. | Probably. | Possibly. |
| Depressions | 11 | 1 | 4 | — | 1 |
| Excitements | 1 | — | — | — | — |
| Paranoid states | 11 | — | 6 | — | 1 |
| Senile | 21 | 1 | 4 | — | 6 |
| General paresis | 5 | — | — | — | — |
| Alcoholic | 2 | 1 | 1 | 1 | — |
| All diagnoses, men | 51 | 3 | 15 | 1 | 8 |
| Women : | | | | | |
| Depressions | 35 | 8 | 5 | — | 1 |
| Excitements | 8 | 1 | 2 | — | — |
| Paranoid states | 15 | — | 4 | — | 2 |
| Senile | 23 | — | 1 | 1 | 3 |
| General paresis | 3 | — | — | — | — |
| All diagnoses, women | 84 | 9 | 12 | 1 | 6 |

began after the death of the wife. Interesting is the case of a highly intelligent, schizoid labourer, who lost his wife after 19 years of rather unhappy married life. Less than a year afterwards he developed a paranoia erotica, with delusions of mutual love and impending marriage.

One widower and eight widows are classified as *excitements* (maniacal or hysterical). One of the widows developed an acute psychosis with paranoid and confusional trends ten days after the death of her husband. The case was regarded as a "flight into illness," and complete remission came within 4 months. In two cases there was a possible causal connection, but altogether excitements seem to be less commonly caused by the death of the spouse than are depressions.

In the group of *senile, arteriosclerotic* and other organic psychoses (22 widows and 21 widowers) there was a probable causal connection in one case, and two more were rated as possibles. Somewhat more often (in six men and four women) social conditions connected with their lonely existence seems to have contributed towards hospitalization of senile widows or widowers. In one case we hear definitely that the patient had suffered from a somewhat periodical psychosis for a number of years, but her husband did not want to have her admitted. After his death the children managed to nurse her in the home for two years, but then had to give up. In other cases we hear more vaguely that the patient is cared for by married children, by neighbours or in nursing homes, but becomes "too difficult," or there is no one to take care of them after the death of the spouse.

Five of our widowers and three of the widows suffered from general paresis, and in five of these eight cases the spouse is known to have died from causes connected with syphilitic infection. Evidently the reason why the incidence of paresis is higher in the widowed than in the married (Table II) is that the spouses of paretics have an increased mortality owing to conjugal infection.

*Alcoholic psychosis* is observed in two widowers only. Both were chronic alcoholics, but the death of the wife led to increasingly heavy drinking.

*The Divorced.*

*The divorced* present an entirely different picture. Among the 71 divorced patients not a single case could be found in which it could be established as probable that the outbreak of the psychosis was caused by the divorce, or by the marital incompatibility leading up to the divorce. In seven cases there was a possible causal connection, but none of them were very convincing. On the other hand it was found that in 46 of the 71 cases the divorce was probably caused by the psychosis—either by mental symptoms, or by symptomatic alcoholism. This is particularly true of the *schizophrenics*, who were mostly of the paranoid type. In all the 15 male schizophrenics and in 15 out of the 20 female ones the divorce was probably caused by the psychotic symptoms, or by heavy drinking which developed in connection with the psychosis. We hear for instance that the patient was unable to perform her house-work, or that she simply left her husband and her children, or that her erotic paranoia made the marriage impossible. Of the male patients we hear that they were drinkers or poor providers, or brutal. Two of them had incestuous relations with their daughters. Only in one of these 30 cases was the condition recognized as a mental anomaly at the time of the divorce proceedings. In the remaining ones the diagnosis was not made until later on, mostly within one or two years. Cases in which divorce was granted on the grounds of insanity are, therefore, not included in our material.

TABLE V.—*Causal Connection between Divorce and Psychosis.*

| | | The divorce caused the psychosis. | | The psychosis caused the divorce. | |
|---|---|---|---|---|---|
| Men : | No. | Probably. | Possibly. | By alcoholism. | By symptoms. |
| Depressions | 3 | — | 1 | 1 | — |
| Paranoid | 14 | — | 1 | 8 | 7 |
| Senile | 2 | — | — | 1 | 1 |
| Alcoholic | 8 | — | — | 7 | 1 |
| Total for men | 27 | — | 2 | 17 | 9 |
| Women : | | | | | |
| Depressions | 7 | — | 2 | — | — |
| Excitations | 6 | — | — | 1 | 4 |
| Paranoid | 20 | — | 3 | — | 15 |
| Senile | 5 | — | — | — | — |
| General paresis | 7 | — | — | — | — |
| Total for women | 45 | — | 5 | 1 | 19 |

In eight male patients with *alcoholic* psychoses the man's drinking was the direct cause for the divorce in every case. Only in one of them did actual psychotic symptoms (paranoic and hypomanic traits) play any role.

In the small group of six patients (all women) who were suffering from *excitements* of various types the findings are closely similar to those in the schizophrenic group: in none of these cases could the divorce be shown to have had any etiological significance, whereas five of these six women were divorced by their husbands because of pre-psychotic or psychotic symptoms of a manic or hysterical type. In the ten *depressive* patients, on the other hand,

the divorce did not have any connection at all with the psychosis, and in merely one case with a complicating alcoholism.

In two out of seven *senile and arteriosclerotic* cases the divorce was caused by psychotic symptoms or symptomatic drinking. In the seven divorced women suffering from *general paresis* no causal connection was established, but generally these patients had a poor social background, and had shown looseness of character and behaviour before as well as during their married life.

In view of these findings the excessively high incidence of mental disease in the divorced must clearly be regarded as a result of social selection, based upon pre-psychotic and psychotic traits.

## Conclusions.

The statistical and clinical data, which have been discussed in the present paper and in a previous publication, suggest that the main factor in the interplay of marriage and mental health is what might be called the *selection by marriage*. Certain personality traits reduce the chances of getting married, by making contact with the opposite sex more difficult or less attractive, or indirectly by blocking the way towards social and economic success. Some of these traits are disproportionately common in persons who are predisposed towards certain psychoses, or in the initial stages of such disorders. This is particularly true of a number of traits which cluster around such concepts as "schizoid," "schizothymic" or "sensitive," but generally most of the personality types which are characterized as "unbalanced" or "unstable" lead to a decided marriage handicap. These are the main reasons why schizophrenia, as well as psychotic reactions of a sensitive and hysterical type, are more common in the single than in the married. The same applies to psychoses which develop upon a background of feeble-mindedness or epilepsy. Manic-depressive psychosis, on the other hand, is nearly as common in the married as in the single, because the personality background for this psychosis is unlikely to represent a marriage handicap. The same is true of organic and symptomatic psychoses, including general paresis and alcoholic psychoses.

It would seem likely that a "protection by marriage" against certain conflicts and problems which occur more readily in the life of single persons may be responsible for part of the excess morbidity of the single. One would, for instance, think of the complex of social and personal problems which Kretschmer has described as the typical background for certain forms of his "sensitive Beziehungswahn." On the other hand it is not self-evident (perhaps not even likely) that environmental factors should at this age (25–30 years and upwards) play any decisive role in the development of psychotic reactions. For psycho-neuroses, on the other hand, it is much more likely.

The death of the spouse does not immediately lead to any change in the "selection by marriage." Widows and widowers remain a positively selected group. This explains why the incidence of psychoses remains low in the widowed, in spite of the obvious environmental difficulties which they have to face. If protection by marriage were a factor of real importance for the low morbidity of the married, then one would certainly expect a more conspicuous rise in the morbidity after the death of the spouse. In some cases mental

strain connected with the death can be shown to lead more or less directly to a psychotic breakdown. Such reactive psychoses are most common in women, and are mostly of a depressive character. They are responsible for the somewhat raised incidence of affective disorders in widows.

In the course of time a certain selection takes place in the widowed, because some of them re-marry. This selection is probably of the same nature as the original selection by marriage, and consequently leads to a somewhat raised morbidity from schizophrenia and allied psychoses.

In the divorced the incidence of psychoses is nearly as high as in the single, and much higher than in either the married or the widowed. Now psychoses elicited by the divorce are in our clinical material very rare. On the other hand, pre-psychotic personality traits or initial psychotic symptoms are very often found to have been the cause of marital incompatibility and divorce. This makes the divorced a selected group, and explains why they show a very high incidence of schizophrenia, alcoholic psychoses and general paresis, while the incidence of manic-depression is the same as in the married, or even lower.

## SUMMARY.

The high morbidity from psychoses in the single and the divorced as compared with the married and the widowed is discussed, on the basis of statistical and clinical material. It seems that a *selection by marriage* with regard to personality traits and mental health is the main cause, while a *protective influence* of married life could not be positively shown to exist. The problem of selection versus protection is felt to be a useful formulation of the more general problem of constitution versus environment, or of nature versus nurture. But a statistical investigation based upon the incidence of psychoses is naturally too crude in its method and too restricted in its scope to warrant anything but the most tentative conclusions.

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