

Sex Differences in Depression The Effects of Occupation and Marital Status

Lenore Radloff¹

*Center for Epidemiologic Studies,
National Institute of Mental Health*

The role of housewife has been hypothesized as the source of excess mental illness among married women as compared with married men. The present study found both housewives and working wives significantly more depressed than working husbands. Although working wives report that they do more housework than husbands, this factor was not significantly related to depression for either wives or husbands. It is suggested that the risk factors for depression, including marriage for women, may be better understood in the context of clinical theories of depression, especially the "learned helplessness" model.

There is a considerable body of research showing that women have higher rates of certain mental illnesses than men. Gove and Tudor (1973) evaluated these findings and suggested that the most likely explanation lies in the social roles of women, particularly married women, in modern industrial society. The studies they reviewed were done between World War II and 1970, in North America and Western Europe, and included community surveys, first admissions to psychiatric hospitals, psychiatric care in general hospitals, and psychiatric outpatient care in private and public clinics.

Gove (1972) reviewed studies of mental illness which reported marital status as well as sex. All studies agreed in finding higher rates among women than men *among the married*. In other marital status categories, however, the results were less consistent, with a majority showing higher rates for men than for women among the never-married, the divorced, and the widowed. The studies with age adjustment supported this result. Gove again evaluated possible ex-

¹ Requests for reprints should be sent to Ms. Lenore Radloff, Center for Epidemiologic Studies, National Institute of Mental Health, 5600 Fishers Lane, Room 10C09, Rockville, Maryland 20852.

planations and concluded that those based on the social roles of married women were most consistent with the data.

Speculations about the effects of marriage on women by Gove and in Jessie Bernard's book (Bernard, 1973) emphasized the role of housewife. The assumption was that the married man has two major sources of satisfaction (job and family) but that the married woman has only one (family). Further, the role the housewife plays in the family may be a source more of frustration than of satisfaction. The effects of small children on the mother's control over her own life were pointed out by Bernard. Finally, even if the married woman has a job outside the home, she is likely to be mainly responsible for household duties and therefore to be under the stress of overwork. Her job is also likely to be of lower income and status, and less a source of satisfaction than is her husband's. Gove and Tudor conclude:

We would like to emphasize that we need to know much more about how the woman's role produces high rates of mental illness, and without more research we can only speculate, as we have done, on what the important factors might be (p. 831).

The present study tests the effects of some social role factors included in the speculations of Gove and of Bernard, particularly among the married. The dependent variable is a scale measuring symptoms of depression. The data are from a large mental health interview survey, containing several mental health measures and relevant sociodemographic variables. With minor exceptions, the married women are more depressed than the married men, even when factors such as age, education, income, employment status, satisfaction with job and marriage, parental status, and amount of housework performed are taken into account. Since sociological role analyses seem to explain only part of the sex/marital status pattern, further hypotheses from clinical theories of depression are suggested.

METHODS

The Center for Epidemiologic Studies (CES) of National Institute of Mental Health (NIMH) initiated a Community Mental Health Epidemiology Program in 1971. An interview survey was done in Kansas City, Missouri, in 1971-72, and in Washington County, Maryland, in 1971-73. Samples of households were drawn to be representative of each community, excluding certain institutions such as hospitals and prisons. One respondent was randomly selected for interview from the household residents age 18 and over. Interviews were obtained from 74.8% of the selected sample in Kansas City, and from 80.1% in Washington County. The total numbers interviewed were 1159 in Kansas City, 1670 in Washington County.

Table I. CES-D Scale

INSTRUCTIONS FOR QUESTIONS: Below is a list of the ways you might have felt or behaved. Please tell me how often you have felt this way during the past week. HAND CARD A.

Rarely or none of the time (less than 1 day)
 Some or a little of the time (1–2 Days)
 Occasionally or a moderate amount of time (3–4 Days)
 Most or all of the time (5–7 Days)

During the past week:

1. I was bothered by things that usually don't bother me.
 2. I did not feel like eating; my appetite was poor.
 3. I felt that I could not shake off the blues even with help from my family or friends.
 4. I felt that I was just as good as other people.
 5. I had trouble keeping my mind on what I was doing.
 6. I felt depressed.
 7. I felt that everything I did was an effort.
 8. I felt hopeful about the future.
 9. I thought my life had been a failure.
 10. I felt fearful.
 11. My sleep was restless.
 12. I was happy.
 13. I talked less than usual.
 14. I felt lonely.
 15. People were unfriendly.
 16. I enjoyed life.
 17. I had crying spells.
 18. I felt sad.
 19. I felt that people dislike me.
 20. I could not get "going."
-

The racial compositions of the samples reflect those of the populations: about 24% nonwhite in Kansas City, 2% in Washington County. Preliminary analyses suggested that the whites and nonwhites should not be combined because they may differ in relationships among certain variables. But the numbers of nonwhites are too small to analyze separately in detail. Therefore, the present report covers analyses of whites only, with an *N* of 876 whites in Kansas City, 1639 in Washington County.

The survey operation was managed on site by local organizations² but coordinated by CES, to maintain the greatest possible comparability between the sites. Preliminary analyses of the data indicated that there were some differences between the sites in some of the mental health measures, but most of them disappeared when adjustments were made for racial composition and socio-

² Epidemiologic Field Station, Greater Kansas City Mental Health Foundation, Kansas City, Missouri, and Johns Hopkins Training Center for Public Health Research, Johns Hopkins University, Hagerstown, Maryland.

economic variables. Relationships among variables were very similar for the sites. Therefore, the combination of the data from the two sites was considered justified, and has been done for most tables presented here.

The questionnaire used in this survey included over 300 separate questions, covering psychological and psychophysiological problems (especially symptoms related to depression), mood, physical illness, need for and use of treatment, assessment of current life situation (including demographic variables, such as age, sex, marital status, education, and occupation), recent life events, social functioning, and alcoholism. Note that the measure of income is total household income, not personal income of the respondent.

The dependent variable used in the present analysis is a scale developed at CES to measure symptoms of depression (therefore called the CES-D scale). It consists of 20 items (see Table I) selected from existing depression scales (e.g., Zung, Beck, MMPI). The items were selected so that each major factor (or cluster of symptoms) in the clinical syndrome of depression (as identified by clinical judgment and factor analytic studies) was represented by a few items. Items were also chosen on the basis of validity and discriminatory power, when this could be determined from the literature.

Properties of the scale, its internal consistency and validity, will be reported in detail elsewhere. In brief, the scale discriminates well between psychiatric inpatients and the community samples (Craig & VanNatta, 1974); between those who report "emotional problems for which they needed help" and those who reported no such problems, within the community surveys; and between those who reported the death of a spouse in the past year and those who reported none, within the community surveys. Follow-up studies are in progress, to evaluate the outcome, in terms of illness and treatment, of high-scoring respondents. Within the survey, the CES-D scale showed the relationships with other variables which would be expected of a depression scale according to the literature on depression. A separate clinical validation study (Weissman, Prusoff, & Newberry, 1975) found high correlations with the SCL-90, Hamilton, and Raskin scales, and found a significant reduction of scores over time, as depressed patients under treatment recovered.

Table II shows parameters for the distribution of the scale, for the general population and the high-scoring groups mentioned above. Note that a higher score indicates more reported symptoms of depression. (The terms *higher score* and *more depressed* have been used interchangeably throughout the present report, but it should be noted that *more reported symptoms of depression* is the most accurate description.)

As seen in Table II, the distribution of the scale in the general population is skewed. Furthermore, the assumption of equal variance in groups with different means is not always met. Therefore, the probability levels from the analyses

Table II. Parameters of CES-D Scale for Specified Groups

Group	<i>N</i>	\bar{X}	<i>SD</i>	<i>SKEW</i>	Percent at and above cutoff score 16
Total — Kansas City (KC)	1173	9.92	9.32	1.42	21.6
Total — Washington County (WC)	1672	9.13	8.27	1.47	18.1
KC white male	335	8.18	8.24	1.75	16.1
WC white male	679	7.85	7.13	1.57	12.2
KC white female	541	10.32	9.48	1.36	22.4
WC white female	959	10.03	8.95	1.35	22.3
KC black male	118	10.23	9.91	1.33	22.0
KC black female	165	11.72	9.67	1.05	29.1
Psychiatric inpatients	70	24.42	13.51	0.20	70.0
KC: Yes to "need help"	192	19.16	12.03	0.35	57.3
WC: Yes to "need help"	159	18.63	11.05	0.39	56.6
KC: Death of spouse — past year	13	21.31	14.75		61.5
WC: Death of spouse — past year	20	16.45	10.29		45.0
KC: Divorce — past year	17	12.06	9.28		17.6
WC: Divorce — past year	21	10.29	9.59		23.8
KC: Marital separation — past year	35	16.71	13.80		48.6
WC: Marital separation — past year	28	15.25	9.85		50.0
KC: Occupation unemployed	122	11.84	10.16		33.6
WC: Occupation unemployed	77	11.34	8.95		24.7

of variance reported here are not exact. However, confidence in the results is justified by three facts. First, the pattern of findings is consistent across the various analyses. Second, the probability values reported as "less than .01" are usually very much less than .01, often as small as .0001. Third, the analyses of Tables III and VI were repeated, using a square-root transformation, with the same result. Contingency table analyses on the percent above a cutoff score also confirmed the findings.

Occupational categories were based on the respondent's answer to the question: "Are you working now, laid off, a student, unemployed, retired, or what?" For the present analysis, if a respondent filled more than one role, he/she was assigned to a category in order of precedence: worker (takes priority over) student, retired, laid off, unemployed, housewife. For example, housewives were self-designated, and coded as such only if not gainfully employed (half time or more), retired, going to school, or unemployed. Instructions to interviewers allowed for male housewives, but none appeared in this sample. A few women who had been housewives called themselves retired and were so coded. Most of the retired, however, were retired from gainful employment. The category *unemployed* used in the present analyses combined *laid off* and *unemployed* (which was defined as *not working but looking for work*).

RESULTS

Marriage is Better for Men

Previous studies led Gove (1972) and Bernard (1973) to conclude that marriage is a mental health advantage for men, but not for women. The present study confirms this basic finding, with respect to depression. The most striking result is the good mental health of married men.

In the total sample, women are more depressed than men. When marital status is added to the analysis, an interactive pattern emerges (see Table III). Among the married and the divorced/separated, the women are more depressed than the men; among the never-married and widowed, the men are more depressed. Married men are less depressed than other men (except the divorced/separated). Married women do not have a similar advantage over women who are not married (except the divorced/separated).³

Further analyses, combining data for the two sites, were done, using only the married respondents. The first step was to determine whether the sex difference is an artifact of age, education, or income. (This will be especially important in later analyses comparing the married and nonmarried groups which differ markedly on these variables.) High CES-D scores were found to be associated with youth, low education, and low income. Among the married, the sexes were very similar in their age, education, and income distributions. And, as expected, controlling for these variables did not reduce the sex differences in depression. The mean CES-D scores of the women are higher than those of comparable men in every subgroup (see Table IV). The main effect for sex is significant in each of the three analyses of variance, with no interactions. The main effects for age, for education, and for income are also significant, in the expected directions.

A further analysis was done to determine the effects of retirement and unemployment because the unemployed have higher average depression scores than the working or retired people, and women are overrepresented among the unemployed. Analysis of variance on sex by employment status (working, retired, unemployed) was done for the married group (see Table V). Note that housewives were omitted from this analysis altogether, as were the very few students in the sample. There is a significant interaction between sex and employment status. The women score higher than the men if working or retired, but the men are higher than the women if unemployed. In fact, unemployment is the only condition under which married men are more depressed than comparable married women. This is not surprising. A married man is traditionally expected

³Analysis of the unexpected pattern for the divorced/separated, as well as results for the widowed and never-married, will be reported elsewhere.

Table III. Mean Depression Score (CES-D): Sex by Marital Status (Kansas City and Washington County Separately, Whites Only)

Marital Status	Kansas City				Washington County			
	Male		Female		Male		Female	
	<i>N</i>	\bar{X}	<i>N</i>	\bar{X}	<i>N</i>	\bar{X}	<i>N</i>	\bar{X}
Married	240	7.33	328	10.03	539	7.33	603	9.26
Divorced/separated	26	6.96	60	12.99	40	8.51	86	14.19
Never married	49	10.16	62	9.59	73	10.05	86	10.20
Widowed	18	15.09	87	10.08	27	11.28	183	10.46
Analysis of variance								
Interaction			$p < .01$				$p < .02$	
Sex			$p > .38$				$p < .02$	
Marital status			$p < .01$				$p < .01$	

Table IV. Mean Depression Score (CES-D): Sex by Age, Education, and Income for Currently Married (Combined Sites, Whites Only)^a

	Male		Female		Analysis of variance
	<i>N</i>	\bar{X}	<i>N</i>	\bar{X}	
Age					Interaction $p > .69$
Less than 25	62	9.47	109	12.41	Sex $p < .01$
25-64	611	7.38	747	9.26	Age $p < .01$
65 and over	106	5.78	74	8.14	
Education					Interaction $p > .19$
Less than high school	301	7.75	335	10.92	Sex $p < .01$
High school graduate	254	7.79	360	9.61	Education $p < .01$
Some college	111	6.39	151	7.42	
College graduate	113	6.12	84	7.54	
Income					Interaction $p > .77$
Less than \$4,000	68	9.33	84	11.05	Sex $p < .01$
\$4,000 to 11,999	327	7.98	413	9.81	Income $p < .01$
\$12,000 and over	342	6.47	362	8.85	
Total (Combined sites)	779	7.33	930	9.54	

^aSlight variations in numbers due to missing data.

Table V. Mean Depression Score (CES-D): Sex by Employment Status for Currently Married (Combined Sites, Whites Only)

Employment status	Married Male		Married Female		Analysis of variance
	<i>N</i>	\bar{X}	<i>N</i>	\bar{X}	
Worker	644	7.05	381	9.01	Interaction $p < .02$
Retired	105	7.59	53	9.86	Sex $p > .70$
Unemployed	24	12.79	77	9.40	Occupational role $p < .01$

ted to support his family so that unemployment is a more serious matter for him than for a married woman.

The Depressed Housewife

Gove and Tudor (1973) suggested that it is the role of housewife which accounts for the high rates of mental illness in married women relative to married men. "Being a housewife makes women sick" was Jessie Bernard's succinct assertion (Bernard, 1973, p. 53). Results from the present study suggest that the role of housewife is only part of the explanation.

Some theories assume that the difference between married men and women is that the men have jobs and the women are housewives, and that it is only the housewives who are more depressed than the men. In the present study, most married men have jobs (about 83%) but so do many married women (41%). The housewives are more depressed than the men, but so are the working wives. Controlling for age, education, and income does not change this effect. (See Table VI. Only two age categories were used, since working people over age 65 are rare.) In every category, both working wives and housewives are more depressed than comparable working married men. The average scores for housewives are higher than those for comparable working wives, but none of these comparisons are statistically significant. It would seem that working per se does not protect the married woman from depression.

It has been suggested that the nature of the job of housewife is boring, frustrating, unstructured, and unrewarding, especially to the educated woman. The job may be all of these, but in the present study, the better the education, the *less* depressed the housewife (see Table VI). The depressed woman is not an upper-class phenomenon. Throughout our data, it is the women with low education and income who are especially depressed, compared with the men.

The Dual Role Hypothesis

A more complex role analysis (the "dual role hypothesis") was offered by Gove and Tudor (1973). Married men have two roles (job and marriage) and therefore two potential sources of satisfaction. If one fails, the other can be used

Table VI. Mean Depression Score (CES-D): Sex/Occupation by Age, Education, Income for Currently Married (Combined Sites, Whites Only)^a

	All Married						Analysis of variance	
	Male Workers (MW)		Female Workers (FW)		Housewives (H)			
	<i>N</i>	\bar{X}	<i>N</i>	\bar{X}	<i>N</i>	\bar{X}		
Age							Interaction	<i>p</i> > .92
Less than 25	54	9.36	42	11.36	51	12.76	Age	<i>p</i> < .01
25 and over	590	6.91	339	8.71	362	9.64	Sex/occupation	<i>p</i> < .01
							Pairwise contrasts:	
							MW vs. FW	<i>p</i> < .02
							MW vs. H	<i>p</i> < .01
							FW vs. H	<i>p</i> > .16
Education							Interaction	<i>p</i> > .20
Less than high school	216	6.87	114	10.19	172	11.16	Education	<i>p</i> < .01
High school graduate	237	7.88	148	9.58	164	10.11	Sex/occupation	<i>p</i> < .01
Some college	89	6.65	72	7.03	55	7.36	Parwise contrasts:	
College graduate	102	5.88	47	7.37	22	7.42	MW vs. FW	<i>p</i> < .01
							MW vs. H	<i>p</i> < .01
							FW vs. H	<i>p</i> > .48
Income							Interaction	<i>p</i> > .67
Less than \$4,000	18	8.80	14	12.45	45	10.48	Income	<i>p</i> < .04
\$4,000 to \$11,999	278	7.78	151	9.09	203	10.16	Sex/occupation	<i>p</i> < .01
\$12,000 and over	326	6.52	194	8.93	132	9.24	Pairwise contrasts:	
							MW vs. FW	<i>p</i> < .02
							MW vs. H	<i>p</i> < .01
							FW vs. H	<i>p</i> > .82
Total (Combined sites)	644	7.05	381	9.01	413	10.03		

^aSlight variations in numbers due to missing data.

for support. The housewife has only one role and source of satisfaction. The working wife should become more like the working husband if matched on job satisfaction. The prediction is that if the marriage fails to bring satisfaction, the worker can turn to satisfactions of the job (if they exist), while the housewife is more likely to become depressed. The present study partially supports this hypothesis. When happiness with job and marriage are held constant, housewives are significantly more depressed than working wives. However, working wives are still more depressed than working husbands. The dual role hypothesis does not explain this difference.

In the present study, each respondent rated happiness with marriage and/or with "job or duties" (where applicable) on a seven-point scale. A rating

Table VII. Distributions and Mean Depression Score (CES-D): Sex/Occupation by Ratings of Happiness with Job and Marriage for Currently Married (Combined Sites, Whites Only)^a

All married Sex/occupation by rating of marriage	Rating of job						Total N
	Happy			Unhappy			
	N	\bar{X}	%	N	\bar{X}	%	
Male workers (MW)							
Happy	401	5.75	62.5	173	8.48	26.9	642
Unhappy	22	9.14	3.4	46	11.70	7.2	
Female workers (FW)							
Happy	209	7.36	55.1	108	9.77	28.5	379
Unhappy	30	11.03	7.9	32	14.88	8.4	
Housewives (H)							
Happy	275	8.27	66.9	89	12.43	28.5	411
Unhappy	12	16.67	2.9	35	15.09	8.5	

Analysis of variance:
 Interactions, 2-way all not significant, $p > .25$
 Interaction, sex/occupation by job by marriage $p < .10$
 Sex/occupation $p < .01$
 Pairwise contrasts, sex/occupation all $p < .01$
 Happy-marriage $p < .01$
 Happy-job $p < .01$

^a Slight variations in numbers due to missing data.

of job or duties was obtained from housewives as well as those with outside jobs. Among the currently married workers and housewives who rated both marriage and job, the correlations between the two ratings are only moderate: among male workers, $r = .38$; among female workers, $r = .23$; among housewives, $r = .35$. This low correlation gives some reassurance that response set is not the only variable operating to produce the relationship between these ratings and depression. It is also interesting to note that the correlation between happiness with marriage and happiness with the job of housewife is not substantially higher than the correlation between happiness ratings of marriage and outside job.

The relationship between each rating and depression is monotonic, with higher depression associated with less happy ratings. An arbitrary division into the least happy 30% versus the most happy 70% (approximately) was made for the current analyses. Table VII shows the distribution of happiness ratings and average depression scores for the married male workers, female workers, and housewives. The three groups are similar in the percents who rate themselves happy. The only noticeable differences are that slightly fewer married working

women report that they are happy with their marriages and fewer housewives say they are unhappy with their jobs.

Those who rate themselves as happy with job or marriage are significantly less depressed than those who rate themselves as unhappy. In contrast with Table VI, Table VII shows that when happiness ratings are held constant, the housewives are significantly more depressed than the married working women. However, contrary to the dual role theory, the working wives are still significantly more depressed than comparable men. For the workers, a simple additive model would fit these data: Starting with the average CES-D score of about 5.75 for the least depressed group (married male workers happy with both job and marriage), add about 2.5 if a worker is unhappy with job, about 4 if unhappy with marriage, and about 2 for being female. In other words, among the married working people, there is still a significant sex difference.

The data for the housewives cannot be comfortably fitted to this model, even though none of the interactions are statistically significant. The few housewives who are unhappy with marriage but happy with "job" are as depressed as if they were also unhappy with "job." And the housewives are significantly more depressed than working wives as well as husbands. Thus the dual role hypothesis can explain the excess depression of housewives over working wives but not the excess of working wives over working husbands. Neither working per se nor happiness with job and/or marriage makes married women as healthy as comparable married men.

Working Wives are Overworked

Gove and Tudor (1973) pointed out that a married woman, even if she works, is probably also primarily responsible in the home. This burden of double duty may explain the higher depression of working wives, as compared to husbands. The present study found no significant relationship between amount of housework (as measured) and depression.

Amount of housework is analyzed in combination with parental status, since the presence of children in the home must certainly affect the amount of work. Estimates of how often they "worked around the house and yard" during the past week were made by the respondents. For the present analyses, three categories are used: none or once, several times, every day or more than once a day. Parental status is also classified in three categories: have children and are living with them, have had children but are not living with them, never have had children. Married male workers, married female workers, and married housewives are compared.

As expected, the housewives report that they do much more housework than the male workers. Surprisingly, the working wives report almost as much as the housewives. Apparently, most working wives are *also* housewives. Of the

Table VIII. Mean Depression Score (CES-D): Sex/Occupation, Housework, and Parental Status for Currently Married (Combined Sites, Whites Only)^a

All married Sex/occupation by parental status	Housework (Times per week)							
	0-1		Several times		Every day		Total	
	<i>N</i>	\bar{X}	<i>N</i>	\bar{X}	<i>N</i>	\bar{X}	<i>N</i>	\bar{X}
Male workers (MW)								
No children (NC)	36	6.81	37	7.16	11	5.82	84	6.83
Not live with (NLW)	49	5.24	39	4.26	42	4.45	130	4.69
Live with (LW)	160	8.84	171	7.87	94	6.03	425	7.83
Female workers (FW)								
No children (NC)	12	10.25	18	8.78	31	9.06	61	9.21
Not live with (NLW)	7	7.00	25	5.84	55	8.27	87	7.47
Live with (LW)	13	11.77	41	8.59	171	9.57	225	9.52
Housewives (H)								
No children (NC)	2	6.00	1	12.00	17	12.94	20	12.20
Not live with (NLW)	8	9.88	16	6.06	83	7.66	107	7.59
Live with (LW)	15	14.93	41	10.15	227	10.51	283	10.69

Analysis of variance

Interactions all not significant, $p > .22$ Sex/occupation, $p < .01$ Pairwise contrasts, sex/occupation: MW vs. FW $p < .01$ MW vs. H $p < .01$ FW vs. H $p > .34$ Housework, $p > .66$ Pairwise contrasts, housework all not significant, $p > .38$ Parental status, $p < .01$ Pairwise contrasts, parental status: NC vs. NLW $p < .09$ NC vs. LW $p > .39$ NLW vs. LW $p < .01$ ^aSlight variations in numbers due to missing data.

married male workers, only 23% say they work around the house or yard every day, compared with 69% of the married female workers and 80% of the housewives. In contrast, the three groups do not differ in their distributions of parental status.

The relationships of amount of housework and parental status to depression are shown in Table VIII. Although the working wives are overworked, this does not seem to account for their higher depression scores. The overall effect of housework on depression is not significant. In every category of housework by parental status, the married female workers score higher than the married male workers and the overall contrast is significant. The housewives are higher than the female workers in most categories, but the overall contrast is not significant. The housewives are significantly higher than the men.

The measure of amount of housework used here may be too crude. A more detailed measure used in a revised version of the questionnaire will be anal-

alyzed. However, more housework is so normative for women and deviant for men that "matching" on this measure is a questionable procedure. The relationship of depression to housework will be analyzed separately for each group. It may be that amount of *time* spent on housework is not the important factor. The feeling of being responsible (even if her husband "helps" her with *her* housework) and the energy spent worrying about or making household arrangements may be active sources of stress for the working wife and may also detract from the satisfactions she might otherwise derive from her job. Gove is currently engaged in a study which inquires more deeply into some of these subtle factors.

Parental status is significantly related to depression. The "empty nest" group (who have had children but are not living with them) have significantly *lower* depression scores than either of the other parental groups, i.e., no children or living with children. The low scores of "retired parents" are confounded with the age effect (higher scores for age under 25). However, depression of parents correlates negatively with age of the youngest child at home (data not shown). The average depression scores of parents are highest if children are under age 6, lower if children are 6–12, and lowest if children are over 12.

DISCUSSION

Previous discussions of the effects of social roles on mental illness have been based on a general "stress theory." If environmental stress produces internal distress which is manifested in certain observable ways, then there are three points at which a sex/marital status difference could occur. One, men (or married men) might be exposed to less stress; two, under the same stress, men (or married men) might experience less *or a different kind* of internal distress; and three, men (or married men) might experience the same distress but manifest it in different ways, including alcoholism, physical illness, and denial of symptoms. The social role explanations discussed here involve the first point – that there is less stress in the social environment of married men. This may well be true, but the specific sources of differential stress have not yet been clearly identified. Further research is needed, including consideration of the effects of stressful life events.

Evidence against various hypotheses that suggest that men and women experience the same stress but react differently to it have been discussed by Gove (1972) and by Bernard (1973). Subsequent studies (Gove, 1973; Clancy & Gove, 1974) add evidence that married men do *not* compensate for their lack of depression in other ways, including suicide, homicide, alcoholism, and denial of symptoms. Some additional evidence is available from the present study. The married men do not score high compared with nonmarried men on *any* of the many scales used in the interview, including use of medications, disability days, a

short "aggression scale," alcohol problems (slightly modified Mulford Scale), and the Crowne-Marlowe Scale for Social Desirability. The same holds for the individual items of the CES-D scale. The married men are low on all items, compared with married women and nonmarried men. In addition, the married women score slightly higher than the married men on the Crowne-Marlowe.

Another alternative explanation discussed by Gove (1972), Bernard (1973), and others is differential selectivity in marriage. The higher rates of many kinds of problems in the never-married (as compared with the married) may be cause or effect of marital status. If mental illness prevents men from marrying, but does not prevent women, these marital status patterns would be as observed. Gove (1972) and Bernard (1973) have shown some evidence of this phenomenon. However, the specific mental illness involved may be relevant. Maltzberg (1964) shows evidence of a differential effect of dementia praecox on probability of marrying. But the data of Briscoe (1973) suggest depression does not prevent men from marrying any more than it prevents women. Recent analyses by Dohrenwend and Dohrenwend (1974) and by Lemkau (1974) suggest strongly that we must consider the type of mental illness (especially the distinction between schizophrenia and depression) when we are trying to interpret demographic distributions.

Studies of sex and marital status come mainly from epidemiology and sociology; analyses of sex-role stereotypes from sociology and psychology, and theories of depression from psychology and psychiatry. Some integration of the three is in order. What, in the nature of depression, could explain its epidemiologic distribution across social/psychological roles?

The cognitive theory of Beck (1974) is a very influential current model of depression. He suggested that the crucial feature of depression is a pessimistic (hopelessly helpless) view of the self, the world, and the future. Beck also discounted the traditional view of depression as anger turned inward. "By a kind of 'alchemy' the anger is supposedly converted into depressive feelings. A more plausible explanation is that the sadness is the result of the self-instigated lowering of the self-esteem" (p. 12). This is an important issue, because there is evidence (Maccoby, 1966) that males show more outward aggression than females. However, men and women do not differ on *feelings* of anger reported in the present study. If feelings of anger are equal, but men express them outwardly while women internalize them, then a sex difference in depression would be predicted by the "anger-inward" theory. Extension to the sex/marital status patterns observed would require the unlikely assumption that married men are most effective in handling anger, but that never-married and widowed men are less effective than comparable women.

The "learned helplessness" model of Seligman (1974) is especially applicable to the analysis of the sex-role patterns of depression. Based originally on animal experiments, this model has been shown to correspond well to what we

know of human depression in symptomatology, etiology, cure, and prevention. The main points of the theory are that (1) helplessness is the defining symptom of depression; (2) it can be learned by learning that your responses are unrelated to rewards and punishments; and (3) it can be treated or prevented by learning under what conditions your responses *are* effective in producing (desired) results. The pathological helplessness of the depressive includes the inability to act and the conviction that any action would be ineffectual. He has given up.

This is a definition of depression very similar to Beck's and is also compatible with the reinforcement theories of Ferster (1974) and Lewinsohn (1974), which defined depression in terms of a cycle of reduced activity and reinforcement. Learned helplessness is also similar to the concept of "powerlessness," as encountered in the literature of the women's movement (as in other liberation movements). Most analyses of the mental health of women (e.g., Bernard, 1973; Gove, 1972; Chesler, 1972) discussed power (and the lack of it) on both the political and the personal level. It can easily be argued that women are both more susceptible (i.e., have experienced more training in learned helplessness) and more exposed to current situations of helplessness (i.e., where they have little control over what happens to them).⁴

Relative helplessness may be a common denominator in the risk factors for depression. Low education and income (especially in combination with youth), lack of social support and other resources, life events losses — all these could be seen as conditions of helplessness. Gove (1972) and Bernard (1973) pointed out aspects of social roles which may reduce people's control over their own lives.

Seligman's model will be a useful guide for a new look at the literature on sex differences in child-rearing, role stereotypes, and actual life situations. Is there *evidence* that girls are trained to be helpless, as studies of sex-role stereotypes (Broverman, Broverman & Clarkson, 1970) would suggest? Is there evidence that this training is the mediator of the decision to marry — that the more passive/dependent women do not consider any life style except marriage, while more active women can tolerate the single life? (Bernard, 1973, p. 35–39, cited some indirect evidence.) Would a longitudinal study find that the age effect found here (older people *less* depressed than the young within each sex/marital status group) is due to an increased competence which might come from experience and maturity? Is there evidence that helplessness is the mediator of the relationship between current situation and depression? And finally, is there evidence of the efficacy of therapy and prevention based on this theory?

There are probably many factors related to depression and possibly more than one kind of depression. The value of the helplessness model should be

⁴ Similar views have recently been expressed by Beck and Greenberg (Cognitive therapy with depressed women, in Franks & Burtke, *Women in Therapy*). For example, they say, "... young women will do well to concentrate on preventing future depression by cultivating habits of self-respect and self-reliance and by leading a balanced life. . . ."

determined by further research. If it is shown that learned helplessness (as defined by Seligman) is one important factor in depression, then we can expect that changes in social roles which encourage women to be more actively in control of their lives would have a real impact on their mental health.

SUMMARY

Many factors are related to reported symptoms of depression as measured in this study. High average CES-D scores are found among respondents who: are under age 25; have less than high school education; have household income less than \$4000 per year; are unhappy with their jobs and/or marriages; have no children or have children living with them. However, after these factors have been taken into account, there remains a pattern of significant differences related to sex and marital status.

Married women are consistently more depressed than married men, but this is not the case for the never-married and the widowed. The one exception is that unemployed married men are more depressed than unemployed married women. Both housewives and working wives are more depressed than working husbands of comparable age, education, income, happiness with job and marriage, reported amount of housework, and status as parents. Housewives are *not* more depressed than working wives, except when matched on ratings of happiness with "job" and marriage.

In conclusion, we have not discovered any factor(s) which explain the mental health advantage of married men. They do not benefit from differential age, education, or income. The dual role hypothesis could explain excess depression if it is found in housewives, as compared with working wives. Neither the dual role hypothesis nor "overwork" (as measured here) can explain the excess depression of working wives over working husbands. It is suggested that the learned helplessness model of depression would be a fruitful guide for further research toward the understanding of the relationship between sex roles and depression.

REFERENCES

- Beck, A. T. The development of depression: A cognitive model. In R. J. Friedman & M. M. Katz (Eds.), *The psychology of depression: Contemporary theory and research*. Washington, D. C.: V. H. Winston, 1974. Pp. 3-27.
- Bernard, J. *The future of marriage*. New York: Bantam, 1973.
- Briscoe, C. W., & Smith, J. Depression and marital turmoil. *Archives of General Psychiatry*, 1973, 29, 811-817.
- Broverman, I. K., Broverman, D. M., & Clarkson, F. E. Sex-role stereotypes and clinical judgments of mental health. *Journal of Consulting and Clinical Psychology*, 1970, 34, 1-7.

- Chesler, P. *Women and madness*. Garden City, New York: Doubleday, 1972.
- Clancy, K., & Gove, W. Sex differences in mental illness: An analysis of response bias in self reports. *American Journal of Sociology*, 1974, 80, 205-216.
- Craig, T. J., & VanNatta, P. V. *Validation of the community mental health assessment interview instrument among psychiatric in-patients*. Technical Report, 1974, Johns Hopkins University, Contract HSM-42-71-32, National Institute of Mental Health.
- Dohrenwend, B. P., & Dohrenwend, B. S. *Sex differences and psychiatric disorders*. Paper presented at the VIII World Congress of Sociology, Toronto, Ontario, August, 1974.
- Ferster, C. B. Behavioral approaches to depression. In R. J. Friedman & M. M. Katz (Eds.), *The psychology of depression: Contemporary theory and research*. Washington, D. C.: V. H. Winston, 1974. Pp. 29-53.
- Gove, W. The relationship between sex roles, marital status, and mental illness. *Social Forces*, 1972, 51, 34-44.
- Gove, W. Sex, marital status, and mortality. *American Journal of Sociology*, 1973, 79, 45-67.
- Gove, W., & Tudor, J. Adult sex roles and mental illness. *American Journal of Sociology*, 1973, 78, 812-835.
- Lemkau, P. V. *Epidemiologic contributions to psychiatric classification*. Paper presented at meeting of American Public Health Association, New Orleans, October, 1974.
- Lewinsohn, P. M. A behavioral approach to depression. In R. J. Friedman & M. M. Katz (Eds.), *The psychology of depression: Contemporary theory and research*. Washington, D. C.: V. H. Winston, 1974. Pp. 157-178.
- Maccoby, E. E. Summary of research in aggression. In E. E. Maccoby (Ed.), *Development of sex differences*. Stanford: Stanford University Press, 1966.
- Maltzberg, B. Marital status and the incidence of mental disorder. *International Journal of Social Psychiatry*, 1964, 10, 19-26.
- Seligman, M. E. Depression and learned helplessness. In R. J. Friedman & M. M. Katz (Eds.), *The psychology of depression: Contemporary theory and research*. Washington, D. C.: V. H. Winston, 1974. Pp. 83-113.
- Weissman, M. M., Prusoff, B., & Newberry, P. *Comparison of the CES-D with standardized depression rating scales at three points in time*. Technical report, 1975, Yale University, Contract ASH-74-166, National Institute of Mental Health.