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Employment, Unemployment And The Health Of Pregnant Women

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Abstract

Much of what little we know about the impact of unemployment on health is based upon data or studies of predominantly unemployed men. These studies, though weak in methodology, imply that unemployment may lead to excess morbidity and mortality. This paper reports a study of 4,000 pregnant women in Brisbane. Unemployment amongst women is associated with high-risk health behaviour, which in turn may lead to low birthweight births. Further, unemployed women are more anxious and depressed than are employed women. The mental health of the mother appears to be more closely related to the employment status of her spouse than to her own employment status.

There have been few attempts to systematically assess the health consequences of unemployment in general and of female unemployment in particular. In part this may be attributed to traditional patterns of sex-role socialisation and the so-called work ethic, under which male identity is generally ascribed to work-related activities. Female identity, it may be thought, is uninfluenced by unemployment, as the primary female roles of wife and mother remain available to the unemployed women. In any event, large numbers of unemployed women comprise a new social group and the lack of data relating to them may reflect their recent origin. The growing proportion of women seeking to join the workforce and the higher rates of unemployment experienced by women,¹ has produced a need to revise our thinking about women and work in general, and the impact of unemployment on women in particular.

This paper begins by examining the differing meanings that men and women have given to work and, by extension, to unemployment. It examines the validity of previous findings relating unemployment to health. Finally, the paper presents data from a longitudinal study of work status and the health of pregnant women and assesses the findings in the context of previous research.

Meaning of work

To understand something of the ramifications of unemployment it is helpful to reflect upon the changing meanings that typify work as an individual activity. While Weber's² analysis of the role of the Protestant religions in the development of capitalism focused attention upon the interrelationship between work and almost all social and cultural activities, it perhaps served to provide a static rather than dynamic view of the meaning of work. Thus the meaning of work to the individuals involved appears to vary according to whether we are discussing the early or late 20th century, the social class position of the worker, or that worker's gender.

In an extensive review of the literature concerning historical phases in the changing meanings attributed to work, Borrero and Rivera³ point out that work has varyingly been defined as a curse, remedy for temptation, as a duty, as a service to God as a means of salvation, or as the

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expression of man's creativity. More recent data comparing the qualities that workers seek of their work shows that for U.S workers since 1958 there has been a decline in the perceived importance of a regular or steady income and of job security, and a substantial increase in the importance of a feeling of accomplishment.⁴ Financial factors remain of considerable concern to semiskilled and unskilled workers, but skilled craftsmen appear to emphasise the self-respect, respect of others and the opportunity for self-expression derived from work. Physicians appear unconcerned about financial matters and emphasise the role of their work as a service to others.⁵

For a variety of reasons, the meaning women attribute to work has shown substantial change. Thus the proportion of American housewives who like housekeeping has declined from 70 per cent in 1957 to 55 per cent in 1976. By 1976 only 40 per cent of housewives in the 18-34 age group reported liking housework and the proportion of housewives thinking about getting a job almost doubled to 30 per cent.⁶ Women, when they have obtained work, have occupied many of the more routine occupations in society, for example in secretarial or clerical positions or on assembly lines.⁷ As a result one might expect women to consequently have more negative feelings about their work than do men; however, this does not appear to be the case.⁷ Men and women are similar in the qualities they seek from a job, but they differ somewhat in at least one respect, that a greater proportion of women than men rank as first priority a job which gives them a feeling of accomplishment.⁸

The findings thus suggest that an increasing proportion of women work or seek to work and that they work, as do men, partly because they seek a feeling of accomplishment and less so because they desire the financial rewards. In a situation of rising unemployment, large numbers of men and women will be denied both these psychic and economic rewards of work.

Unemployment and health

Previous studies of the health consequences of unemployment have suggested that unemployment leads to increased mortality,⁹ particularly from suicide and heart disease, or is associated with higher morbidity.¹⁰ However, many of these previous studies of the impact of unemployment or health possess serious methodological difficulties.

First, the correlation studies associating unemployment with mortality have, to some extent, contrived results with a biased selection of "time lag" periods (between unemployment and the onset of health problems). In any event, researchers in Germany, Denmark, the Netherlands and more recently in Britain have failed to replicate the initial findings,¹¹ Other studies have failed either to distinguish poor health as a cause of unemployment from unemployment as a cause of poor health, or have ignored the importance of a range of potentially confounding variables. These confounding variables might include cigarette consumption, financial hardship, poor diet and lack of exercise (ie. apathy) which could flow from unemployment and which in turn may compromise the mental or physical health of the unemployed individual.¹²

Data and methods

The data for this study comprise part of a broader data base. For this study we have selected 4,000 consecutive first clinic visits (commencing January 5, 1981) at the Mater Hospital, Brisbane Obstetric Clinic. At their first visit women were asked to complete an enrolment questionnaire. Of the 4,000 women, 26 refused to participate in the study. A further 406 women were lost to follow-up, largely because they did not proceed to have their babies at the

Mater, or because they miscarried. The remainder were followed up with a second questionnaire between two and four days after the birth of their baby, and their medical records were also included in the data base. This left 3,568 (89.2% of the original sample) in the study. Not all these women answered all questions. Data were obtained for three dependent variables (anxiety, depression and the birthweight of the baby) and a range of social and social-psychological variables.

The use of birthweight as an indicator of the outcome of pregnancy has a long history and requires no justification. By contrast, efforts to measure anxiety and depression are controversial and raise questions concerning the validity and reliability of the indicators which have been selected. The Delusions-Symptoms-States Inventory¹³ represents one attempt to standardise and add consistency to the measurement of mental health. The inventory is derived from a theory of mental illness which suggests that mental health problems can be ranked along a continuum according to the extent to which the individual increasingly loses control of his or her own behaviour and personal relationships.¹⁴ The Delusions-Symptoms-States Inventory (hereafter DSSI) is a symptom checklist. Initial validity has been suggested by a study involving 25 senior clinicians who were able to reliably allocate 84 symptoms and signs to 12 syndromes.¹⁵ In addition, a comparison of 200 "normal" persons and 480 clinical patients showed that the vast majority were correctly classified by the inventory.¹⁶ The inventory should then prove a useful guide to persons in the community who manifest some of the same clinical symptoms of those who are hospitalised for their mental illness.

Findings

Women responding to the survey were asked two questions relating to their employment status. One concerned whether they were fully employed, employed part-time, unemployed and so on. The second question concerned the employment status of their partner. These two questions provide seven combinations of employment status when the woman and her partner are jointly considered (Table 1). A little over half the sample of women have a husband who is (full-time, part-time or self-) employed and are themselves housewives. A further 25 per cent belong to a couple where both partners are employed. All other categories comprise couples where one or other partner is unemployed (336 women or 9.4% could not be allocated to one of the seven categories). Overall, 427 women (12 per cent) and 333 men (9 per cent) were reported as being unemployed. The use of seven categories of unemployed status was originally based upon the hypothesis that women might differ depending upon whether they were unemployed, their partners were unemployed, or both were unemployed.

[Table 1 and 2 here]

It is clear that a number of interesting comparisons may be made between the employment combinations listed in Tables 1 and 2. First, one may compare couples reporting both partners unemployed with the other six categories. Such couples are generally unmarried, of low income, with little education, from a lower status background and young. Second, it is possible to compare couples reporting one or other partner unemployed with those employed. Employed couples tend to be married, of higher income, with higher education, of higher socio-economic background and older. Third, we compare couples in which the male partner is unemployed with couples in which the female partner is unemployed. This third comparison is most useful for the categories father unemployed-mother employed and father employed-mother unemployed. These two groups are demographically similar except that the

employed mothers are more educated and somewhat older, Finally, one may compare couples with both partners employed with the more traditional and common couple of male employed-mother housewife. These groups are similar except that the employed women appear to have slightly higher levels of education.

Similar types of comparisons point to various differences in health practices (Table 3). Women in couples with both partners unemployed are residentially mobile, of low parity, smoke heavily and generally do not eat breakfast every day (an indicator of regularity of diet) They are also less likely than most women to report they planned their pregnancy and wanted the baby. Couples reporting at least one partner unemployed are residentially more mobile and state they infrequently plan their pregnancies and want the baby (at the time of conception). They also tend to eat breakfast less regularly than their employed comparison groups. There are interesting differences between the couples with the father unemployed-mother employed and father employed-mother unemployed. The final comparison, between the two 'employed' couples, suggests that they are similar except that women in couples with both partners employed are of lower parity.

[Table 3 here]

Table 4 examines the birthweight of the babies born to the women in our sample. The initial unadjusted comparison shows that women in couples with both partners unemployed have babies 226 grams below the average for our sample, However, when we adjust for the gestation, age, parity, marital status, cigarette consumption and an indicator of diet (breakfast every day), the previously significant differences disappear. Thus any observed differences in birthweight are unlikely to be related to the employment status of the woman or her partner, but are due to the effect of sociodemographic and health behaviour differences between the groups used in the comparison.

[Table 4 here]

By contrast, differences in the level of anxiety and depression experienced by unemployed women remain after they have been adjusted for a range of sociodemographic and health behaviour variables.

For simplicity of reporting, the unadjusted findings appear in Tables 5 and 6. Women in couples with both partners unemployed report anxiety levels similar to those with only one partner unemployed and greater than that report by the "employed" groups. Unemployed persons have higher anxiety levels than employed persons. Women in couples with the father unemployed-mother employed appear to report about twice the anxiety levels of women with the father employed-mother unemployed. Couples with both partners working do not appear to differ in the reported anxiety of the mother from couples living in the more traditional arrangement.

[Tables 5 and 6]

Depression levels are generally highest for women in couples with both partners unemployed, intermediate for couples with one partner unemployed and lowest for employed couples (Table 6). Again it is interesting that women in father unemployed-mother employed couples report poorer mental health than those in father employed-mother unemployed couples. There is little difference between the two 'employed' groups though women in couples with both

partners employed may report less symptoms of depression than do women in father employed-mother housewife couples.

Discussion

Unemployed women (classified by their own and their partner's employment status) have lower birthweight babies, and higher levels of anxiety and depression both before and after the birth of their baby. However, at this time, it is possible only to speculate about the cause-effect sequence associating unemployment and health.

Unemployed women tend to come from more economically deprived social backgrounds than do employed women. Unemployed women appear to more often manifest health behaviours (cigarette smoking, high residential mobility, less regular diet, less planned pregnancies) which might produce a lower birthweight baby. When these factors are controlled, the differences in birthweight between employed and unemployed women disappear. It must, however, be noted that some factors simply cannot be controlled and were left out of the multivariate analysis. Thus 1 or 2 per cent of employed women fall into the below \$5200 per year income group, but up to 63 per cent of women in some of the unemployed categories reported this income level. Further, controlling for cigarette use, diet and other variables fails to take account of a plausible causal chain which begins with unemployment and which leads to unhealthy behaviours which, in turn, influence birth-weight. According to this sequence cigarette smoking would be an intervening rather than a confounding variable.

The association between anxiety, depression and employment status does not disappear when account is taken of some potentially confounding variables. Anxiety and depression levels are similar in some respects and different in others when we compare the various employment categories. Women in couples with both partners unemployed are generally more depressed than the other groups but they are no more anxious than other categories of unemployed women. Unemployment for either partner is associated with higher levels of anxiety and depression in the female respondent, but the employment Status of the male appears to be of greater significance for the mental health of the mother than her own employment status. Women with an unemployed partner report poorer mental health than women with an employed partner but themselves unemployed. Thus the respondents mental health appears to be "caused" more by their partners' employment status than their own.

Couples either both employed or with the male employed and the mother a housewife appear to manifest the lowest levels of anxiety and depression. There is no evidence that working couples have poorer mental health than working husband/housewife couples and, if anything, the reverse might be the case.

It is again only possible to speculate about the cause-effect sequence which produces the associations we have observed. The measurement of anxiety and depression at two points in time suggests that poor mental health is a characteristic of unemployed women throughout their pregnancies. The apparent dependence of the mother's mental health on the employment status of her partner, and the poor mental health of couples with both partners unemployed, implies that the mother's mental state is a function of events which are more likely to influence her than she is likely to produce. Thus the mental health of the mother appears to be a response to the varied combinations of unemployment to which the woman and her partner are subject.

Conclusions

Unemployed pregnant women have lower birthweight babies and higher levels of anxiety and depression both during and shortly after the birth of their babies. The causal sequence associating these variables is, however, uncertain. It appears that unemployed women engage in unhealthy behaviours (e.g. smoking) which influence the birthweight of the baby. Women in couples with both partners unemployed manifest the highest rates of depression. Where one of the partners is not unemployed, the employment status of the woman's partner may be more important than her own in influencing the mental health of the mother. It is likely that the mental health of the mother is a response to changes in her employment status as well as of her partner.

References

1. *Facts on Women at Work in Australia, 1979*. Canberra, A.G.P.S.1980.
2. Borrero. I. M. and Rivera. H. A. Toward a Meaning of Work. 1980, 7(6), 880-894.
3. Converse, P. C. *et al. Americas Social Attitudes Data Sourcebook 1947-1978*. Cambridge. Mass: Harvard University Press. 1980, 215.
4. Borrero. I. M. and Rivera. H. A. *op. cit.*, p.887
5. Converse. P.R. *etat*, pp. 109-115.
6. *ibid.* p.161.
7. *ibid.* p.207
8. Brenner. M. H. *Mental Health and the Economy*. Cambridge, Mass.: Harvard University Press. 1974. Bunn. A. R. Ischaemic Heart Disease Mortality and the Business Cycle in Australia. *A.J.P.H.*, 1969, 69(8).
9. Cook. D.G. *et al.* Health of Unemployed Middle-Aged Men in Great Britain. *Lancet*, 1982, June 5, 1290-1294.
10. Spruit, I. P. Unemployment and Health in Macro-Social Analysis. *Soc. Sci. Med.* 1982, 16(22), 1903-1917.
11. Colledge, M. Economic Cycles and Health. *Soc. Sci Med.* 1982, 16(22), 1919-1927.
12. Borrero, M. Psychological and Emotional Impact of Unemployment. *Journal of Sociology and Social Welfare*. 1980, 7(6), 916-934..
13. Bedford, A., Foulds, G. A. *Manual of the Delusions' Symptoms-States Inventory (DSSI)*. 1978. Windsor: NFER.
14. Foulds, G. A. and Bedford. A. Hierarchy of Classes of Personal Illness. *Psychological Medicine*, 1975, 5(2), 181-192.
15. Bedford. A. and Foulds, G. A. Validation of the Delusions-Symptoms-States Inventory". *British Journal of Medical Psychology*, 1977, 50, 163-171.
16. Bedford, A. and Foulds, G. A. *op. cit.*, 1978. 12.

Tables

TABLE 1: Employment status of couples

	n	%
1. Both unemployed	66	1.8
2. No partner, mother unemployed	63	1.8
3. Father unemployed, mother housewife	163	4.6
4. Father unemployed, mother employed	28	0.8
5. Father employed, mother unemployed	231	6.5
6. Father employed, mother housewife	1,794	50.3
7. Both employed	887	24.9
8. Other	336	9.4
TOTAL	3,568	100

TABLE 2: Employment status of couples by social background of women presenting for antenatal care

Occupational situation	Per cent* married at first clinic visit	Per cent* income less than \$5200	Per cent* with Grade 10 education	Mean** occupational† status of father of respondent	Mean** age of respondent in years
Both unemployed	41	47	85	55	20
No partner					
Mother unemployed	0	63	78	53	20
Father unemployed					
Mother housewife	82	23	79	53	24
Father unemployed					
Mother employed	37	19	61	54	24
Father employed					
Mother unemployed	26	20	81	52	21
Father employed					
Mother housewife	90	1	74	50	26
Both employed	82	2	68	50	25
TOTAL	80	6	72	50	25

*Chi squared $p < .001$

**ANOVA $p < .0001$

†Occupational status is rated from high (medical practitioner=18) to low (labourer=64). A clerk/typist is rated as 55 on the scale.

TABLE 3: Employment status of couples by frequency of selected health practice of women presenting for antenatal care

Occupational status	Mean number† of changes of residence since pregnant	Mean† parity	Per cent** who planned pregnancy and wanted baby	Per cent* smoking 20+cigs. per day in last trimester	Per cent eating breakfast every day
Both unemployed	1.2	0.5	46	35	41
No partner					
Mother unemployed	1.2	0.1	16	17	44
Father unemployed					
Mother housewife	1.1	1.5	58	20	51
Father unemployed					
Mother employed	1.6	0.7	22	7	37
Father employed					
Mother unemployed	1.0	0.2	31	14	46
Father employed					
Mother housewife	0.5	1.4	60	13	64
Both employed	0.4	0.6	53	9	59
TOTAL	0.6	1.1	54	12	59

*Chi squared $p < .001$

†Kruskal-Wallis ANOVA of ranks $p < .0001$

TABLE 4: Employment status of couples by birthweight of infant (average deviation from 3384 gm)

Occupational situation	Unadjusted**	Adjusted†
Both unemployed	-226	-11
No partner, mother unemployed	-4	113
Father unemployed, mother housewife	-64	-65
Father unemployed, mother employed	-84	76
Father employed, mother unemployed	-68	25
Father employed, mother housewife	34	-1
Both employed	-22	-2

†Adjusted for covariates gestation, age and other factors (parity, marital status, breakfast every day and cigarette consumption).

*Not significant $p \sim .3$

** $F=4.73$ $p=.001$

TABLE 5: Employment status of couples by the experience of symptoms of anxiety by mother at first clinic visit and after the birth

Occupational situation	Per cent* reporting moderate or greater anxiety at first visit	Per cent* reporting moderate or greater anxiety after birth
Both unemployed	15	15
No partner, mother unemployed	23	17
Father unemployed, mother housewife	11	15
Father unemployed, mother employed	29	18
Father employed, mother unemployed	14	9
Father employed, mother housewife	9	9
Both employed	8	7
TOTAL	10	9

*Chi squared $p < .001$

TABLE 6: Employment status of couples by the experience of symptoms of depression by mother at first clinic visit and after the birth

Occupational situation	Per cent* reporting moderate or greater depression at first visit	Per cent* reporting moderate or greater depression after birth
Both unemployed	14	15
No partner, mother unemployed	10	7
Father unemployed, mother housewife	4	7
Father unemployed, mother employed	14	7
Father employed, mother unemployed	7	3
Father employed, mother housewife	4	3
Both employed	2	1
TOTAL	4	3

*Chi squared $p < .001$