FAMILY SIZE AND DEPRESSIVE SYMPTOMS IN ORTHODOX JEWISH WOMEN

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Summary—Family size, religiosity and contextually-assessed stress were examined in relation to 11 symptoms of depression in Jewish women. Some indices of family size related to the absence of some symptoms. Notably, having pre-adult children was associated with absence of hopelessness. Religiosity and family size were highly confounded but the effects of the two did differ. Religiosity related to the absence of several symptoms: these were generally different from the symptoms associated with low family size. The data show that the associations between family size and religiosity, and depressive symptoms, cannot be explained in terms of lowered levels of stress.

Introduction

The relationship of childcare to depression in women involves conflicting effects. On the one hand is the widely-cited finding of Brown and Harris (1978) that caring for several young children may interact with stress (a provoking agent) to produce a depressive illness. Brown and Harris (1986) suggest this is due to the covariation of low self-esteem and helplessness with caring for several young children, in the particular group of women studied.

The evidence since 1978 suggests that the Brown and Harris finding was a feature of the cohort studied: subsequent work has failed to confirm that a number of young or dependent children is necessarily a risk or vulnerability factor for depression.

Studies including total number of children, number of dependent or number of young children as risk factors for depression include Weissman (1984), Caserta, Lund and Gray (1987), Calzeroni, Conte, Terzi, Vita and Sacchetti (1989), Loewenthal, Goldblatt, Amos and Mullarkey (1993) and Quinn and Holman (1991). None of these studies showed an association between family size and depression. Calzeroni, Conte, Pennati, Vita and Sacchetti (1990) looked at suicide attempts in patients with major affective disorders, and reported that suicide attempts were more likely in those with a smaller family size.

Studies looking at family size as a vulnerability factor in depression include Brown and Prudo (1981), Costello (1982), Hallstrom (1986) and others mentioned in a review by Brown and Harris (1989). Much work has confirmed the role of severe life events and/or major difficulties in provoking depression (and other illnesses), but the vulnerability factors proposed by Brown and Harris (1978) have not always been found to be important in other studies.

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Failure to find family size as a risk or a vulnerability factor for depression may be due to changing mores. In the 1970s, contraception and abortion were not as available as in the 1980s, and it is suggested that work showing no or negative association between family size and depression reflects situations in which children are positively valued, and in which their absence may be associated with distress and perhaps depression (Brown & Harris, 1986). Thus, Callan and Hennessey (1988) summarize studies showing an association between infertility and distress measures, and Bart (1976) suggests that depression is a result of the "empty nest" in mid-life women. Childrearing, it is suggested, gives identity and purpose (Lineham, Goodstein, Nielsen & Chiles, 1983), and is esteemed in many religions, cultures and sections of society (Loewenthal et al., 1993).

Differing measures of family size in research often reflect different postulated underlying effects. The type of measure most widely employed, number of young children, is used to investigate effects and correlates of active childcare, and of having children in the home, and/or conversely, effects of children growing up and "leaving the nest". This measure has been shown to be associated with depression in every possible direction (positive, negative and not at all), for the reasons outlined above. Another measure is whether or not the subject has children, and this has been used to look at effects and correlates of having children at all, and conversely, the effects of infertility, whether voluntary or involuntary. As mentioned, involuntary infertility is found to be quite depressing. A third measure is the number of children, regardless of age; this measure seems to be unpopular in societies where ties between children and family of origin are loosened in adolescence, but has been employed in studies of societies where family ties may remain close (for example, in Southern European and traditional Jewish societies). Here, there is evidence of a negative relationship between family size and depression, and the suggestion is that sheer number of offspring may have a positive effect on status and/or self-esteem.

Depression research has been dominated by the tradition that depression is a general state that varies in extent and thus, can be measured in extent. The two most popular approaches are

(a) psychometric self-report measures which assess depressed mood (and sometimes self-report of other depressive symptoms). Typically, the number of moods (and symptoms) that the subject reports as being present is taken as a measure of the extent of depression. Such measures are thought to be useful in looking at subclinical populations.

(b) The other widely-used approach has been to use a clinical interview to diagnose the presence of clinical depressive illnesses.

More recently, however, there has been a growing interest in distinguishing differing kinds of depressed states and symptoms as worthy of investigation in their own right. Greene (1989) has argued for a distinction between hopeless and non-hopeless depression. She found that depressed women with children under 10 had low scores on a measure of hopelessness, and expressed more positive thoughts about the future, compared to women with no young children. In line with Greene's finding is that of Calzeroni et al. (1990), reporting lower fertility in suicide attempters.

Greene's approach casts doubt on the universality of aetiological theories of depression in which thoughts of worthlessness, hopelessness and the like are said to play a fundamental role in the genesis of depressive illness. Greene argues that it is time for "a closer look
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at the assumed components of the depressive condition". There is a considerable literature suggesting that the covariation of depressive symptoms is, indeed, quite loose.

This report, therefore, concerns the "components" of depression: hopelessness and other symptoms listed below. We present analyses of some data from a community study of Jewish women, and we look at hopelessness as well as other components of the depressive condition in relation to several indices of family size.

The evidence reviewed so far would suggest that, especially when childrearing is valued—as in the case in at least some sections of the Jewish community—there would be a general association between indices of family size and low levels of depression. The specificity argument and the evidence proposed by Greene leads to the proposal that this effect would be particularly marked with respect to hopelessness compared to other depression symptoms.

Since family size and religiosity covary in the groups of women studied, our analyses attempt to disentangle the covarying effects of these two factors upon the presence or absence of specific depression symptoms.

Method

Subjects

The data are from 56 Jewish women, taken from a parent sample of 121 selected at random from synagogue membership lists. Half the women came from "middle-orthodox" synagogue lists and half from "strictly-orthodox" lists. The parent sample is described more fully in Loewenthal et al. (1993). The strictly-orthodox norm is to have a large family size (Kosmin & Grizzard, 1975) (mean of the present sample was 4.5), while the average number of children in the middle-orthodox group was 2.1 (unrelated \( t = 4.14, d.f. = 53, \) two tailed \( p < .001 \)). The inclusion of women from middle and strictly-orthodox communities was to ensure a wide range of family sizes in the study; the range was 0–12 children. Half of the women in the present study were the highest-scoring quartile from the parent sample on a checklist measure of depressed mood, and the other half were the lowest-scoring quartile (the 4 women missing from the quartiles declined to participate in this part of the research, or could not be contacted). This aspect of the design was to maximize the chances of including at least a number of women with some depression symptoms in the study, along with women who were unlikely to have any symptoms of depression. The women, who had already participated in a postal checklist and questionnaire study (Loewenthal et al., 1993), were contacted by telephone and asked if they would agree to an extended face-to-face interview. The age range of the women studied was 23–85 (mean 51.2, S.D. = 15.73); 41 (74.5%) were still married and 14 (25.5%) were single, widowed or divorced.

Measures

The interview was conducted in each subject's home, and included questions on demographic and other factors, a short form of the Present State Examination (Wing, Cooper & Sartorius, 1973) focusing on anxiety and depression symptoms, and the Life Events and Difficulties Schedule (LEDS) (Brown & Harris, 1978). The LEDS was modified
slightly for the target population by the inclusion of additional questions on problems associated with finding marriage partners. Other culturally-specific events (e.g. to do with rites of passage, the religious calendar, or difficulties of religious observance) were elicited satisfactorily by existing LEDS questions. Some material on anti-semitism emerged in the present project and it was decided to include specific questions on this and related topics in later versions of the LEDS to be used with Jewish subjects. Approximately 1/3 of the events and difficulties reported were considered to be either caused or modified in severity by the cultural context; rating precedents did not exist in the existing LEDS dictionaries and were developed in consultation with Tirril Harris and the MRC rating team.

Our analyses here concern selected depression symptoms—the so-called Bedford College symptoms, which are a set of diagnostic criteria for depression developed by Brown and Harris (1978) prior to the development of the DSM-III. Finlay-Jones, Brown, Duncan-Jones, Harris, Murphy and Prudo (1980) describe the validation of these criteria for diagnosis. The Bedford College criteria resemble those for DSM-III major depression, and we collected dates of onset and offset for these symptoms. This report concerns those symptoms and measures of family size that applied at the time of interview.

The symptoms were: depressed mood, loss of concentration, brooding, loss of interest, hopelessness, suicide plans, self-deprecation, appetite loss, delayed sleep, early waking, retardation.

A number of anxiety and tension symptoms were assessed but will not be examined here. Some of the possible effects of their being confounded with depression symptoms are examined elsewhere (Loewenthal & Goldblatt, in preparation).

Indices of family size were:
- Presence of children under 10 ys (following Greene, 1989) (mean = 0.91, S.D. = 1.58, range = 0–6);
- Presence of dependent children (under 18 ys) (mean = 1.78, S.D. = 2.79, range = 0–12);
- Whether S has a large family (4 + children) (mean = 3.20, S.D. = 2.46, range = 0–12);
- Whether children at all 52 women had at least one child; 4 were childless.

Several measures of religiosity (affiliation, practice, perceived importance) were taken; these proved to be highly inter-correlated and to relate to the other variables to about the same extent as each other, and so just one is reported in the present analyses: orthodoxy of synagogue affiliation.

The Life Events and Difficulties Schedule (LEDS; Brown & Harris 1978), slightly modified for use in the Jewish context, as described, was used to yield two measures of stress: (a) whether or not a provoking agent (severe event or major difficulty) had occurred in the 2 ys prior to the interview; (b) number of all life events (including non-severe) and difficulties (including non-major) in the 2 ys prior to interview.

**Results**

Table 1 presents the results of loglinear analyses (following West, 1991) showing the associations between family size indices, religiosity and depression symptoms. Loglinear
Table 1.
*Loglinear Analyses: Partial Chi-squares and Significance of the Two-way Associations Between Family Size, Religiosity and Specific Depression Symptoms*

<table>
<thead>
<tr>
<th>Symptom</th>
<th>Index of family size and composition</th>
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<tbody>
<tr>
<td></td>
<td>having children &lt; 30, having children &lt; 18, having 4+ children having children at all</td>
</tr>
<tr>
<td></td>
<td>FS&amp;D</td>
</tr>
<tr>
<td>Depression</td>
<td>&lt;1</td>
</tr>
<tr>
<td>Loss of concentration</td>
<td>1.9</td>
</tr>
<tr>
<td>Brooding</td>
<td>&lt;1</td>
</tr>
<tr>
<td>Loss of interest</td>
<td>&lt;1</td>
</tr>
<tr>
<td>Hopelessness</td>
<td>2.5*</td>
</tr>
<tr>
<td>Suicide plans</td>
<td>1.4</td>
</tr>
<tr>
<td>Self-deprecation</td>
<td>&lt;1</td>
</tr>
<tr>
<td>Appetite loss</td>
<td>&lt;1</td>
</tr>
<tr>
<td>Delayed sleep</td>
<td>&lt;1</td>
</tr>
<tr>
<td>Early waking</td>
<td>&lt;1</td>
</tr>
<tr>
<td>Retardation</td>
<td>1.4</td>
</tr>
</tbody>
</table>

**Notes.** (1) All chi-squares here are with 1 d.f. (2) No three-way interactions (between family size, religion and symptom) were significant.

**Abbreviations:** (1) FS = family size and composition, R = religiosity, D = depression symptom, (2) X p < .1; * p < .05; ** p < .01; *** p < .001.
analyses partition the chi-square, indicating the strength of the association between different variables, with other variables controlled. Associations are all in the direction that family size and religiosity are associated with less likelihood of symptoms. Lowered hopelessness was associated with having dependent children. There were also associations between some family size indices and absence of early waking, loss of concentration and (marginally) brooding.

It will be seen from Table 1 that family size is strongly associated with religiosity. However, it is also apparent that the associations between religiosity and the different depression symptoms are quite different from those between family size and the depression symptoms. Religiosity goes along with absence of: depressed mood, loss of interest, suicide plans, early waking and retardation.

There are possibly confounding effects of stress. The more religious may well have less stressful and more "protected" lives (Prudo, Harris & Brown, 1984). The first stress measure, presence of a provoking agent, showed no association with any measure of family size (Table 2), or with religiosity ($\chi^2 = 1.1$, d.f. = 1, ns). The second measure, number of events and difficulties, was weakly but significantly associated with each of the measures of family size studied (Table 2) but not with religiosity ($t = 1.44$, ns). The significant associations between stress and family size were in the direction that women with larger families reported more events and difficulties (Table 2).

Thus, the absence of certain symptoms associated with family size and religiosity cannot be accounted for in terms of lowered levels of stress.

<table>
<thead>
<tr>
<th>Table 2. Correlations Between Measures of Stress and Family Size</th>
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<tbody>
<tr>
<td></td>
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<tr>
<td>Number of young children (under 10 ys old)</td>
</tr>
<tr>
<td>Provoking agent</td>
</tr>
<tr>
<td>Number of events and difficulties</td>
</tr>
</tbody>
</table>

** $p < .01$, *** $p < .001$.

Discussion

Family size covaries strongly with religiosity, but our analyses have eliminated spurious effects, leaving us with patterns of associations with depressive symptomatology that are quite different for the two factors. However, both are associated with lowered levels of symptoms.

The salient feature of the associations between family size and depressive symptomatology is the association between caring for young (and adolescent) children, and low hopelessness. Low hopelessness is not associated with large family size or having children at all. Greene (1989) suggested that childcare facilitates hopeful thoughts about the future, and our data bear this out, with the modification that, in this cultural context where ties between parents and adolescents are strong, the effect extends from those with children under 10 ys to those with children under 18.
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Of the other associations between family size and depressive symptomatology, we note that those with children under 18 ys are less likely to brood, whilst those with no children at all (a very small number of women) are more likely to describe loss of concentration and early waking. Early waking is the only symptom more likely to occur in women with smaller families than women with larger families. The early waking effects may be the results of changing sleep habits and attitudes to sleep resulting from parenting. The effects on cognitive processes may be the result of tighter time-and-attention budgeting, again resulting from parenting.

In all, the effects of family size in these groups of Jewish women seem to be those that are the result of parenthood as such, rather than of having many children. The effects are generally rather weak, but deserve further research attention.

The effects of religiosity are somewhat stronger—and, as stated, are quite distinct from those of having children. Absence of: depressed mood, loss of interest, suicide plans, early waking and retardation, are all associated with religiosity. This constellation points to a higher level of zest for life—alternatively, a lower level of disillusion, among the more religious. There are some supportive suggestions in the literature. Paloutzian (1981) indicated that religiosity might be related to feelings of purpose. Suicide is generally strongly discouraged in Jewish religious thought. The more devout subjects in this and related projects report that they use religiously encouraged anti-depressant cognitions (Loewenthal, 1992). However, the specific effects of religiosity on the cognitive processes thought to be important in depression and other psychiatric conditions remain to be investigated.

Finally, we turn to the possible confounding effects of stress. Prudo, Harris and Brown (1984) suggested that the more traditional churchgoing women in their Hebridean sample were less likely to be depressed because their lifestyle involved them in less stress (lowered likelihood of provoking agents) and also that churchgoing acts as a protective factor in its own right. Some of the protective aspects of religiosity have already been discussed above. In our analyses, family size and religiosity go along with similar or raised levels of stress, so that the association between family size and religiosity on the one hand, and lowered distress—hopelessness, depression and so on, on the other—cannot be explained in terms of lower levels of stress.

Our evidence, from the two groups of Jewish women studied, suggests that family size and religiosity might have specific effects on components of depression which cannot be explained in terms of covarying stress levels. These effects deserve closer investigation.

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References