These can take the form of case studies or brief reports of research. The purpose of all clinical comments is to illustrate something concisely. There must be a clear focus on a central theme. Clinical comments should be under four (double spaced) pages, and minimize tables and references. The title should appear on top. At the end of the text, include name(s) of author(s), highest earned degree(s), and institutional affiliation (or city if in private practice). Please submit four copies with a self-addressed, stamped envelope.

TLB

Memory Dysfunction
in Depressed Spousal Caregivers

Research on caregivers to dementia patients has consistently found that a high percentage of caregivers suffer from depression (Lichtenberg and Barth, 1989; Lovett and Gallagher, 1988) leading to two questions: What is the nature of the depression and what are its consequences? The first question has been addressed recently and it was concluded that caregivers typically suffer...
from minor depression and not from major depressive disorders (Becker and Morissey, 1988; Schulz, Visintainer and Williamson, 1990). The consequences, if there are any, of this minor depression remain unknown.

It is known, however, that elderly suffering from major depression have pronounced deficits in recall memory (Gibson, 1981; Williams, Little and Scates, 1987). Older people in general are at risk for decline in recall memory and even minor depression in older caregivers may be associated with significant memory deficits. This study examined memory functioning of older caregivers having minor depression in relation to both non-depressed caregivers and controls, matched on age and education.

Twenty-one subjects who care for demented spouses at home comprised the caregivers group. The caregivers had an average age of 71.67 (sd = 7.27) and an average of 14.33 years of education (sd = 2.44). The control group consisted of nineteen healthy volunteers who were not caregivers. They had an average age of 68.26 (sd = 4.5) with an average of 15.42 years of education (sd = 2.5). The groups did not differ significantly on age or education.

All subjects were administered the Logical Memory (LM) subtest of the Wechsler Memory Scale (Wechsler, 1945). Subjects were also administered the Geriatric Depression Scale (GDS) which has been found to be a reliable measure of depression in the elderly (Yesavage, Brink, Rose, Lum, Adey and Leirer, 1983).

Data were analyzed using analysis of variance and covariance to determine the relationship of GDS and LM scores in the two groups (caregivers and controls). In addition, the caregivers were divided into two groups (depressed and non-depressed) according to performance on the GDS using a cutoff score of 10. Six caregivers were placed in the depressed group. There were no age or education differences between the three groups. A one-way analysis of variance was used to compare LM scores in depressed and non-depressed caregivers with the control group.

The means and standard deviations of performance on the GDS and LM tests can be seen in Table 1. An initial ANOVA comparing LM in caregivers and the control group determined that the caregivers remembered significantly less than the control group, F(1,38) = 7.58, p < .001. Next, analysis of covariance
(ANCOVA) was used to determine whether the memory difference between groups could be explained by depression as measured by the GDS. First the ANCOVA assumption of equivalent regressions of LM on depression in the two groups was tested. The group x LM interaction term was not significant, $F(1,36) = 1.49, p = .23$, indicating that the regression slopes were not significantly different and the interaction term was then removed from the model. In the ANCOVA, the effect of depression was significant, but when controlling for depression, group membership was no longer significant.

Finally, we divided the caregiver group according to level of depression to look at the effects of depression on memory within the caregiver group. A one-way ANOVA revealed significant differences with planned comparisons showing that depressed caregivers performed significantly worse on LM than did the control group.

These results suggest that being a caregiver does not have non-specific deleterious effects on memory but found that even minor depression can have negative effects on memory. The memory scores obtained by depressed caregivers are below expectation given age and education levels. These depressed caregivers are experiencing difficulties that may impinge on caregiving ability. Depressed caregivers, for example, may be less likely to recall

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<th>LM x</th>
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<tbody>
<tr>
<td>Caregivers (N = 21)</td>
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<td>6.6</td>
<td>9.1</td>
<td>3.2</td>
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<td>Depressed (N = 6)</td>
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<td>5.3</td>
<td>7.3</td>
<td>3.5</td>
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<td>Control Group (N = 19)</td>
<td>2.3</td>
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and to use pertinent information. More of a focus is called for on the consequences of caregiver depression.

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Eric Turkheimer, PhD
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REFERENCES


