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The Relationship between Family Developmental Crisis and the Appearance of Symptoms in a Family Member*

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To assess the relation between family crisis and the onset of symptoms in family members, 90 families in an outpatient facility were studied to determine the elapsed time between the appearance of symptoms and two types of family crisis: addition of a family member and loss of a family member. For each type of crisis, results clearly indicated a significant and positive relationship between family developmental crises and symptom onset. At the same time, it was acknowledged that the strength of this relationship was only moderate, findings were correlational, and conclusions may not be applicable to other samples.

THE IDEA of developmental crisis is not a new one in the psychological literature. Beginning with Freud's description of psychosexual

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METHOD

Two major methodological difficulties were involved in evaluating this hypothesis. The first problem was to define operationally family developmental crises so that they were easily identifiable and datable. Of the crises most often mentioned in the literature, "addition or loss of a family member" is comparatively easy to operationalize, whereas "child starts school" is both difficult to date (start day care, nursery school, kindergarten, or first grade) and complicated by the fact that the institution involved will often identify "symptoms" for the family (1, 4, 7). The second methodological problem was that at any given point in time many families will be involved in more than one crisis. Specifically, the more people in the family, the greater the number of possible crises and the greater the probability of observing an association between onset of symptom and crisis. The data collection procedure outlined below attempted to deal with these issues.

The last 150 cases involving a three- or four-person family seen at a university clinic for diagnosis and/or treatment were contacted by letter within one year of their first appointment at the clinic. They were asked to answer a series of questions anonymously including birth dates of all family members and dates for all births, deaths, separations, and adoptions. The family was asked also to date the onset of the symptoms for which they sought help by specific month and year. Only three- and four-person families were used so that the number of developmental crises per family could be kept to a minimum, and, in effect, this procedure removed families with many developmental crises that could bias the data toward the hypothesis. Of the 150 cases contacted, 111 families replied. From this group, 21 cases were not included in the data analysis because of incomplete information, such as no date for symptom onset, no symptom listed, or no birthdate reported. The final sample consisted of 90 three- or four-person families in which a child or an adult had received diagnostic or treatment service during the past year. Because of the difficulty in operationalizing the crisis of "child starts school," only two types of crises were used when evaluating the hypothesized relationship:

1. *Addition of a family member*—including birth or adoption of a child and marriage of a parent.
2. *Loss of a family member*—including death of a family member, separation of parents, or a child's moving out of the family.

RESULTS

For each family the time between symptom onset and the last addition of a family member and between symptom onset and the last loss of a family member was calculated. The range from date of family crisis to date of symptom onset was 0-124 months and Figure 1 provides a cumulative percentage graph of these results for Crisis No. 1 and for Crisis No. 2 for the total sample of families. In the case of Crisis No. 1, inspection of Figure 1 reveals that 33 families (37 per cent of all cases) reported symptom onset to occur within nine months after the addition of a family member, whereas 24 families (27 per cent of all cases) reported symptom onset to occur within nine months after the loss of a family member. Although inspection reveals a fairly large percentage of cases in which symptom onset is close in time to crisis, two statistical analyses were performed in order to evaluate the hypothesis more carefully.

If symptom onset occurred on a purely random basis and was not related to crisis date, the frequency distribution of months after crisis would be rectangular in shape. That is, the probability of occurrence of symptoms would be equal for all equal periods of time following a crisis. When plotted on a cumulative percentage graph, this "expected" distribution (in which onset of symptom is equally likely at each point

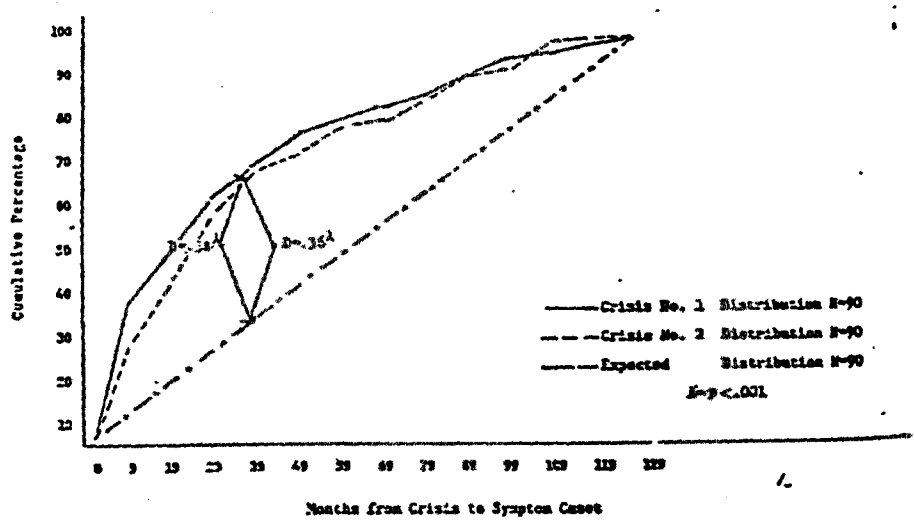


FIG. 1. Cumulative Percentage Graph of Months from Crisis No. 1 and from Crisis No. 2 to Symptom Onset and Distribution of Symptom Onset Expected by Chance.

Cumulative Percentage
 100
90
80
70
60
50
40
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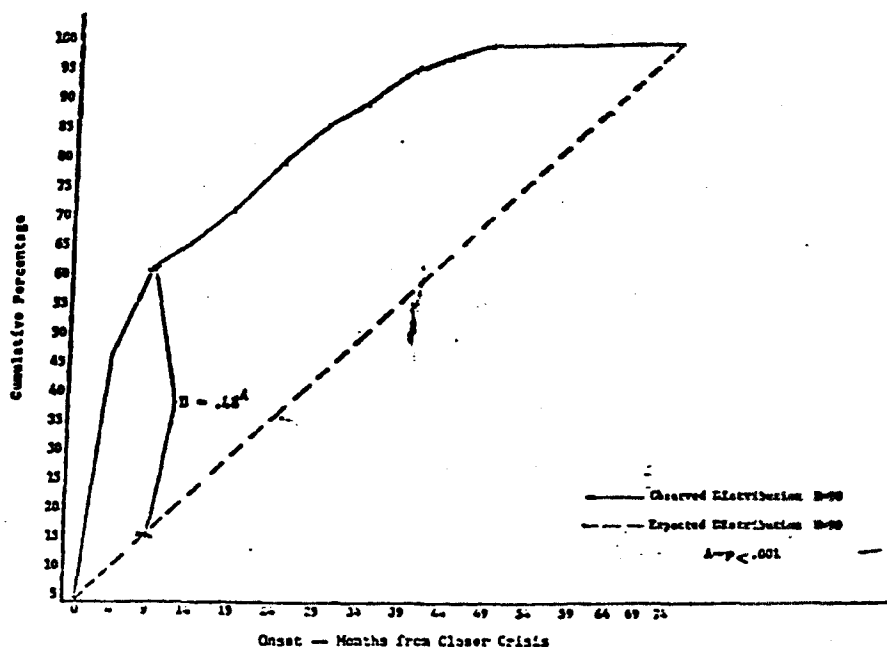


FIG. 2. Cumulative Percentage Graph of Months from Closer Crisis to Symptom Onset.

on the continuum) would take the form seen in Figure 1. A Kolmogorov-Smirnov, one-sample test of cumulative percentages (9) can now be applied to compare this "expected" distribution with the obtained distribution for Crisis No. 1 and Crisis No. 2. A comparison of the distribution of Crisis No. 1 to the expected random distribution reveals $D = .38$ ($p < .001$). In effect, there is a significant difference between the expected distribution and that distribution associated with Crisis No. 1 in that the Crisis No. 1 distribution is greatly skewed toward the crisis point of the continuum. An identical comparison between the frequency distribution associated with Crisis No. 2 and the expected distribution yielded a $D = .36$ ($p < .001$), again indicating that the frequency distribution associated with Crisis No. 2 was skewed toward the crisis point of the continuum. In addition to these two comparisons, one can calculate a distribution of the number of months between symptom onset and the closer of the two crises (for each family)—that is, months since onset and the more recent crisis date. Figure 2 provides a cumulative percentage distribution of the time between symptom onset and the closer crisis date. Inspection reveals that the range of months (0-74) is much smaller than the range of individual

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distribution N=90
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Crisis No. 1 and
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crisis distributions and that 61 per cent of all families reported that symptom onset occurred within nine months after either a loss or an addition of a family member. When this obtained distribution was compared with an expected random distribution, a Kolmogorov-Smirnov Test yielded a $D = .48$ which was reliable at the .001 level of significance.

A second type of analysis used to evaluate the relationship between crisis and symptom onset was correlational. Specifically, the reported dates (year and month) for family crises and for symptom onsets were defined in terms of, and located on, a scale ranging from 1 to 72 with "1" representing January, 1965, and "72" representing December, 1972. (The two extremes of the scale represented the earliest and latest dates at which either a family crisis or symptom onset was reported.) The correlation between time of symptom onset and time of Crisis No. 1 (addition) yielded an $r = .35$ ($p < .01$); the correlation between time of symptom onset and Crisis No. 2 (loss) yielded an $r = .41$ ($p < .01$); and the correlation between time of symptom onset and closer crisis yielded an $r = .74$ ($p < .01$). Although not accounting for a great deal of the variance, the obtained correlations certainly indicate a significant relationship between date of crisis and date of symptom onset—a relationship that appeared very strong when crisis was defined as the closer (of the two) crisis dates.

DISCUSSION

The major hypothesis of this study was generally confirmed; there does seem to be a reliable and positive relationship between family developmental crisis and symptom onset. As reported, analyses revealed a relationship when dealing with two types of crises individually, when the closer crisis was used to calculate the number of months between crisis and symptom onset, and when two statistical procedures were used to evaluate the data. In short, symptoms often occur soon after a family developmental crisis.

Despite this obtained relationship between family crisis and symptom onset, it must be remembered that for a substantial number of families, symptom onset did not occur within a short period of time following an identified family crisis. Methodologically, this finding may have been related to the investigators' selection of only two types of crisis situations (addition and loss of a family member)—a procedure that may have placed limits on the strength of the relationship

that could be identified between crisis and symptom onset.¹ Theoretically, the failure to demonstrate a stronger relationship between crisis and onset may be related to the possibility that certain age groups or symptom patterns in certain family structures do not follow the crisis model at all.

A final factor that could have *diminished* the obtained relationship concerns the present investigators' definition of crisis. Most theorists discussing crisis phenomena speak of the crisis as a period preceding and following a particular event (e.g., loss of family member) (1, 6). In the present study, however, investigators were able to obtain time only between symptom onset and *prior* crises and, therefore, excluded the possibility of symptom onset in *anticipation* of a crisis event (e.g., symptom in child during mother's pregnancy). If many such onsets do occur (which has not been answered empirically), the present procedure underestimated the relationship between family developmental crisis and symptom onset.

CONCLUSION

The present study obtained a positive and significant relationship between symptom onset and family developmental crisis. It must be emphasized, however, that findings were correlational, cause-effect relationships cannot be determined from the present data, and conclusions may not be applicable to other than three- or four-person families or to crises other than addition or loss of a family member.

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¹As noted previously, however, other crisis situations (e.g., a child starting school) are not only more difficult to date but may not be comparable to the two selected crises in that an external agency (e.g., the school), is importantly involved in the dating of crisis and symptom onset.

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