A comparison was made between 29 nursery school children who received mental health service and 20 maladjusted children who did not. Each child who received mental health service at some point during his school career was evaluated for adjustment during five segments of his school career. Data from mental health records for both groups were then separately evaluated by three raters to assess each child's adjustment during these periods. During the 1940's, middle class, professionally oriented families with nursery school children in a community with adequate mental health services did use these services. In over half of the cases, medical health service was instituted prior to the fourth grade. Most children showing evidence of maladjustment, or using mental health services, had low nursery school adjustment ratings. More children showing maladjustment and receiving mental health service showed improvement in high school than maladjusted children who received no mental health service. The need for mental health services at the early elementary school level is supported by the study. This speech was presented at the annual meeting of the American Orthopsychiatric Association, Washington, D.C., March 20-24, 1967. (FS)
SCHOOL CAREER ADJUSTMENT PATTERNS OF CHILDREN UTILIZING MENTAL HEALTH SERVICES

Jack C. Westman, M.D., Professor, Department of Psychiatry, University of Wisconsin, Madison, Wisconsin
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SCHOOL CAREER: ADJUSTMENT PATTERNS OF CHILDREN UTILIZING MENTAL HEALTH SERVICES

Jack C. Westman, M.D., Barbara B. Ferguson, B.S., and Richard N. Waiman, Ph.D.

What is the evidence that mental health screening and intervention are justified, or even possible, for nursery and early elementary school children? Although clinical experience strongly suggests the need for service at these early ages, supporting evidence is needed to confirm or contradict these impressions. This report draws upon a previously described sample of nursery school children who were followed retrospectively for seventeen years from the standpoint of their nursery school and later school adjustments. This paper focuses on the youngsters in that larger sample who ultimately received mental health service or showed definite signs of maladjustment.

The previous report (1) compared the nursery school adjustment of those children who did receive mental health service in later years and those children who did not. The findings disclosed that children with a low nursery school adjustment rating were more likely to show later maladjustment and use mental health services than children with high nursery school adjustment ratings.

THE SAMPLE

Of the children attending a private nursery school between 1945 and 1950, 96 were selected because they could be followed through their high school careers in the local public and private school systems. The children were predominately from middle class socioeconomic backgrounds representing a variety of racial and religious groups and weighted toward pro-

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Professional and university families. Ample mental health services were available within the school systems and community during the period of the study. Of the 96, 29 received mental health service at some point during their school career, 20 did not receive mental health service, but showed evidence of significant maladjustment, and 47 were not identified at any point during their school career as showing maladjustment or as receiving mental health service. This paper focuses on the 29 who received mental health service and the 20 who did not receive mental health service but were identified as showing maladjustment.

METHOD

Each child who used mental health service at some point during his school career was evaluated during five segments of his school career. Mental health service was defined as psychological, social work or remedial therapy in the schools and private or clinic psychiatric service in the community. Rating scales based on clinical criteria were devised to evaluate each child's adjustment during nursery school, kindergarten through third grade, fourth grade through ninth grade and tenth grade through twelfth grade (Figures 1 and 2). Data from school and community mental health records were then evaluated blindly and independently by three raters, a social worker, psychologist and psychiatrist, in order to assess each child's adjustment during each of these periods and the point at which mental health service was first used. Similar information was obtained from school records on children who were identified as showing maladjustment but who did not receive mental health service.

RESULTS

1. Children Receiving Mental Health Service During Their School Careers

Determination of the point at which treatment began with the youngsters who received mental health service revealed that over half of the children received service prior to the fourth grade. As indicated in Figure 3, 2 youngsters first received service in nursery school,
14 during the kindergarten through third grade level, 9 from the fourth through ninth grades and 4 from the tenth through twelfth grades.

In the previously reported analysis of the total sample including both children who received and did not receive mental health service, a strong statistical correlation was found between maladjustment at the nursery school level and the use of mental health service in later years. When the nursery school adjustment ratings of only those children receiving mental health service were reviewed, the following results were noted (Figure 4). The 2 youngsters receiving mental health service at the nursery school level had poor adjustment ratings. Of the 14 youngsters receiving service from the kindergarten through the third grade level, 12 received low nursery school ratings. Of the 9 receiving service from the fourth through ninth grade, 8 had low nursery school ratings. Of the 4 receiving mental health service from the tenth through twelfth grade, 4 had low nursery school ratings.

In summary, then, of the 29 youngsters receiving mental health service at some point during their school careers, 26, or 90%, showed manifest maladjustment at the nursery school level. The size of the group is too small to accord statistical significance to this figure, but the tendency is impressive and in accord with the previous findings.

ii. Children With Manifest Maladjustment But Not Receiving Mental Health Service

When the children identified as maladjusted by the raters of the school records were examined from the point of view of when the maladjustment first became manifest, the results in Figure 3 were noted. Less than half of the 20 showed maladjustment before the fourth grade. 7 showed maladjustment during the kindergarten through third grade level, 9 showed maladjustment in the fourth through ninth grades and 4 from the tenth through twelfth grades.

When these children were examined from the point of view of the correspondence between their nursery school ratings and later maladjustment, 6 of the 7 children identified from the
kindergarten through third grade had low nursery school adjustment ratings (Figure 6).

8 of the 9 youngsters manifesting maladjustment from the fourth through the ninth grade had low nursery school ratings, and 1 of the 4 showing maladjustment during the high school years had a low nursery school rating. In summary, two-thirds of this group showed maladjustment at the nursery school level.

III. High School Follow-up of Maladjusted Children Who Received Mental Health Service and Children Who Did Not

When the adjustment ratings at the tenth through twelfth grades were compared with adjustment ratings at earlier levels, 17 of the 25 children receiving mental health service showed improvement as judged by a shift from a low to a high adjustment rating (see Figure 7). In contrast 3 of the 16 children showing maladjustment but not receiving mental health service were judged as improved as reflected in an upward shift to a high adjustment rating.

This group is sufficiently large to permit chi-square statistical analysis with a .01 significance level for a greater rate of improvement in those children who did than those who did not receive mental health service.

DISCUSSION

The overall finding that 29 of 96 nursery school youngsters received mental health services at some point during their school career is striking in itself. This unusual incidence may be attributable to several factors. At the time these youngsters attended nursery school, World War II was in progress or had recently ended, leading to more instability in their homes than might otherwise have been experienced. At that time, also, youngsters with behavior problems tended to be placed in nursery school. It is likely, therefore, that the sample was biased in the direction of maladjustment. The children's families, also, were inclined to seek out and pursue mental health service if needed without the economic and cultural barriers that
might be encountered in lower socioeconomic levels. Under these circumstances this study
discloses that mental health services often are utilized prior to the fourth grade level.

Our data on children receiving mental health service points to the possibility that
vulnerable children can be identified at the nursery school level. Of the children who
were identified as maladjusted but who did not receive mental health service, one-third
showed maladjustment during the first four years of elementary school. Furthermore two-
thirds of the untreated group had low ratings at the nursery school level. This suggests that
the nursery school observations were more sensitive in predicting maladjustment than those
made during the early elementary years.

The size of this sample is insufficient to warrant conclusions about differences between
maladjusted children who did and did not receive mental health service. Two tendencies
are suggested, however. Children who were maladjusted but did not receive mental health
service were somewhat more likely to show a higher nursery school adjustment rating and
manifest maladjustment later in their school careers than the children receiving mental health
services. This suggests that children receiving early mental health service are more obviously
maladjusted than those who do not.

An important finding is that more of those maladjusted children who receive mental
health service show improvement at the high school level than those who do not. This finding
is attenuated by the fact that information about students is less specific at the high school
level and by the likelihood that emotional and behavioral problems may be less evident
during the high school years. These factors apply to both treated and untreated groups, how-
ever, and probably balance out.

Implicit in the outcome of this study is the fact that the judgments made by the pro-
fessional raters were drawn from the recorded observations and reactions of nursery school
and later school teachers. Although they may not have felt qualified to evaluate their own data, the teachers clearly were gathering significant and meaningful information. Our results should strengthen the predictive confidence of nursery school teachers in particular.

CONCLUSIONS

1. A middle class, professionally oriented group of families with children enrolled in nursery school during the late forties in a community with relatively abundant mental health resources showed a high usage of mental health services.

2. In over half of the cases mental health services were instituted prior to the fourth grade.

3. Most of the children utilizing mental health service or showing evidence of maladjustment in later school years had low nursery school ratings irrespective of the time at which treatment was instituted or maladjustment became evident during their school careers.

4. More of the children showing maladjustment and receiving mental health service showed improvement at the high school level than those who showed maladjustment and did not receive mental health service.

5. The need for and practicality of mental health services at the early elementary school level is supported by the evidence drawn from this study.

REFERENCE

### NURSERY SCHOOL ADJUSTMENT RATING

**1. Relationships With Peers in Nursery School**
- **Isolate, rejected, combative**
  - 1: poor
  - 2: fair
  - 3: good

<table>
<thead>
<tr>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
</tr>
</thead>
<tbody>
<tr>
<td>poor</td>
<td>fair</td>
<td>good</td>
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**2. Relationships With Nursery School Teachers**
- **Rebellious, clinging, excessive need for attention**
  - 1: poor
  - 2: fair
  - 3: good

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<thead>
<tr>
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<th>3</th>
<th>4</th>
<th>5</th>
</tr>
</thead>
<tbody>
<tr>
<td>poor</td>
<td>fair</td>
<td>good</td>
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**3. Creative Use of Individual Activities**
- **Ability to use freely play and art materials with enjoyment and self satisfaction**
  - 1: poor
  - 2: fair
  - 3: good

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<th>3</th>
<th>4</th>
<th>5</th>
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<tbody>
<tr>
<td>poor</td>
<td>fair</td>
<td>good</td>
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</table>

**4. Signs Of Behavioral immaturity**
- **Excessive thumb sucking, security objects in school, enuresis, infantile speech, shyness, Impulsive, separation anxiety, crying, temper tantrums**
  - 1: many
  - 2: few
  - 3: none

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<th>3</th>
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<th>5</th>
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</thead>
<tbody>
<tr>
<td>many</td>
<td>few</td>
<td>none</td>
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**5. Signs of Behavioral Eccentricity**
- **Daydreaming, withdrawal, sneakiness, preoccupied with tale telling, indifferent to others, lacks self confidence, moody, silly, pseudo-mature, phobic, hair twisting, stuttering, excessive masturbation, nail biting, eating problems, soiling, somatic complaints, unhappy, fics, obsessions, compulsions, hyperkinetic syndrome**
  - 1: many
  - 2: few
  - 3: none

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<thead>
<tr>
<th>1</th>
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<th>3</th>
<th>4</th>
<th>5</th>
</tr>
</thead>
<tbody>
<tr>
<td>many</td>
<td>few</td>
<td>none</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**6. Deviance in Family Structure**
- **Parental death, divorce, separation, working mother, unusual number or spacing of children, prolonged parent absence, others living in home, serious illness of parent**
  - 1: gross
  - 2: minor
  - 3: none

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<thead>
<tr>
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<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
</tr>
</thead>
<tbody>
<tr>
<td>gross</td>
<td>minor</td>
<td>none</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**7. Pathological Family Relations**
- **Idiosyncratic withdrawal of child from nursery school, maternal over-protection, parental rejection, frequent absences from school, sibling problems, parent in psychiatric treatment, open parental conflict**
  - 1: gross
  - 2: minor
  - 3: none

<table>
<thead>
<tr>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
</tr>
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<tbody>
<tr>
<td>gross</td>
<td>minor</td>
<td>none</td>
<td></td>
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</tbody>
</table>

**SCALE:**
- **High adjustment** 23 - 34
- **High medium adjustment** 19 - 22
- **Low medium adjustment** 16 - 18
- **Low adjustment** 10 - 15

**TOTAL SCORE**

**Figure 1**
SCHOOL ADJUSTMENT SCALE

1. Academic Achievement
   (Comparison of school grades and individual or group IQ score)
   - failing
     - 1
   - moderate underachievement
     - 2
   - appropriate achievement
     - 3
   - 4
   - 5

2. Relationships With Authority Figures
   - Overtly rebellious
     - 1
   - Excessively dependent
     - 2
   - Control problems in classroom
     - 3
   - Cooperative
     - 4
   - Self-reliant
     - 5

3. Apparent Neurotic Symptoms
   - Signs of overt anxiety, low self-esteem, unhappiness, phobias, enuresis, fearfulness of injury, sexual identification deviation
     - Many
       - 1
     - Few
       - 2
     - None
       - 3
     - 4
     - 5

4. Relationships With Peers
   - Isolate, rejected
     - 1
   - Accepted by peers, capacity for giving and taking
     - 2
   - 3
     - 4
     - 5

5. Participation in Extracurricular Activities
   - Athletics, elective offices, clubs, dramatics, music
     - None
       - .5
     - Some
       - 1.0
     - Active
       - 1.5
     - 2.0
     - 2.5

6. Problems in Family Relationships
   - Reported friction between school and parents, child and parents, child and siblings
     - Gross
       - 1
     - Minor
       - 2
     - None
       - 3
     - 4
     - 5

SCALE:
- High: 18 - 24
- High medium: 14.5 - 17.5
- Low medium: 11.5 - 14
- Low: 6 - 11

Figure 2
CHILDERN RECEIVING MENTAL HEALTH SERVICE DURING THEIR SCHOOL CAREERS

LEVEL AT WHICH MENTAL HEALTH SERVICE WAS INSTITUTED

<table>
<thead>
<tr>
<th></th>
<th>Nursery School</th>
<th>Kindergarten Through Grade 3</th>
<th>Grades 4 Through 9</th>
<th>Grades 10 Through 12</th>
<th>Totals</th>
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<tbody>
<tr>
<td>Girls</td>
<td>0</td>
<td>6</td>
<td>4</td>
<td>1</td>
<td>11</td>
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<tr>
<td>Boys</td>
<td>2</td>
<td>8</td>
<td>5</td>
<td>3</td>
<td>18</td>
</tr>
<tr>
<td>Totals</td>
<td>2</td>
<td>14</td>
<td>9</td>
<td>4</td>
<td>29</td>
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</table>

Figure 3
CHILDREN RECEIVING MENTAL HEALTH SERVICE DURING THEIR SCHOOL CAREERS

LEVEL AT WHICH MENTAL HEALTH SERVICE WAS INSTITUTED

<table>
<thead>
<tr>
<th>Nursery School</th>
<th>Kindergarten Through Grade 3</th>
<th>Grades 4 Through 9</th>
<th>Grades 10 Through 12</th>
<th>Totals</th>
</tr>
</thead>
<tbody>
<tr>
<td>Low Nursery School Rating (10 - 18)</td>
<td>2</td>
<td>12</td>
<td>8</td>
<td>4</td>
</tr>
<tr>
<td>High Nursery School Rating (19 - 34)</td>
<td>0</td>
<td>2</td>
<td>1</td>
<td>0</td>
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<tr>
<td>Totals</td>
<td>2</td>
<td>14</td>
<td>9</td>
<td>4</td>
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</table>

Figure 4
CHILDREN SHOWING MALADJUSTMENT BUT NOT RECEIVING MENTAL HEALTH SERVICE

LEVEL AT WHICH MALADJUSTMENT BECAME MANIFEST

<table>
<thead>
<tr>
<th>Kindergarten Through Grade 3</th>
<th>Grades 4 Through 9</th>
<th>Grades 10 Through 12</th>
<th>Totals</th>
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<td>Girls</td>
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<tr>
<td>Boys</td>
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<td>5</td>
<td>3</td>
<td>10</td>
</tr>
<tr>
<td>Totals</td>
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<td>9</td>
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Figure 5
CHILDREN SHOWING MALADJUSTMENT BUT NOT RECEIVING MENTAL HEALTH SERVICE

LEVEL AT WHICH MALADJUSTMENT BECAME MANIFEST

<table>
<thead>
<tr>
<th>Kindergarten Through Grade 3</th>
<th>Grades 4 Through 9</th>
<th>Grades 10 Through 12</th>
<th>Totals</th>
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</thead>
<tbody>
<tr>
<td>Low Nursery School Rating</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(10 - 18)</td>
<td>6</td>
<td>8</td>
<td>1</td>
</tr>
<tr>
<td>High Nursery School Rating</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(19 - 34)</td>
<td>1</td>
<td>1</td>
<td>3</td>
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<tr>
<td>Totals</td>
<td>7</td>
<td>9</td>
<td>4</td>
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Figure 6
## High School Followup of Children Showing Maladjustment During Their School Careers

<table>
<thead>
<tr>
<th></th>
<th>Improved</th>
<th>Unimproved</th>
<th>Totals</th>
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<tbody>
<tr>
<td>Grades 10 - 12</td>
<td>Rating 14.5 - 17.5</td>
<td>Rating 6 - 14</td>
<td></td>
</tr>
<tr>
<td>Children Receiving Mental Health Services (Prior to Grade 10)</td>
<td>17</td>
<td>8</td>
<td>25</td>
</tr>
<tr>
<td>Children Not Receiving Mental Health Services (Prior to Grade 10)</td>
<td>3</td>
<td>13</td>
<td>16</td>
</tr>
<tr>
<td>Totals</td>
<td>20</td>
<td>21</td>
<td>41</td>
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**Figure 7**