DOCUMENT RESUME

ABSTRACT
            This poster presentation examined the structure of
Japanese elementary school children's social support systems to
demonstrate how they are related to: (1) academic achievement; (2)
teacher evaluations; and (3) the children's own sense of self-esteem.
A total of 91 fifth and sixth graders, along with their teachers,
were interviewed and surveyed. Data on the children's intelligence
test scores, grade point averages, teacher ratings, and attendance
records were obtained. Results indicated that peers and close family
members were the main providers of social support, while the support
provided by teachers and relatives was limited. Boys with low support
from their fathers generally had low levels of self-esteem, high
levels of feelings of isolation in the classroom, and ranked low in
academic achievement and teacher's ratings. For girls, low support
from their fathers was correlated with feelings of isolation, while
low support from their mothers was correlated with low teacher
ratings. Peer support within the classroom tended to be almost
entirely gender-exclusive, while grade point averages and teacher
ratings were positively correlated with children's self-esteem. These
results point to the need for more investigation into children's
social support networks and the negative influence of the lack of
paternal support. (MDM)

Social Support and School Adjustment

in Japanese Elementary School Children

Hideo Kojima* (Nagoya University)
and
Juji Miyakawa (Sugiyama Jogakuen University)

* The first author's address: School of Education, Nagoya University, Chikusa-ku, Nagoya 464-01, Japan; email: a40373a@nucc.cc.nagoya-u.ac.jp.

However, all correspondence before May 25, 1993 should be sent to: Hideo Kojima, Toyota Visiting Professor, Center for Human Growth and Development, The University of Michigan, 300 N. Ingalls, 10th level, Ann Arbor, MI 48109-0406, U. S. A.; e-mail: Hideo.Kojima.TVP@um.cc.umich.edu.

PURPOSE

The structure of elementary school children's social support networks was examined, presenting evidence of how these social support systems are related to (1) academic achievement and other school records, (2) teacher evaluations and ratings, and (3) the child's sense of self-esteem and feelings of isolation in the classroom.

METHOD

Subjects. Four classes of fifth- and sixth-graders (a total of 48 boys and 43 girls) attending a city school in northern Japan served as subjects. In a second test not included in the present analysis, 40 out of the 42 fifth-graders in the study were retested about one year later, and their school records are currently being collected.

Interviews with the children. First, an interviewer (the second author) asked children individually to list their providers of social support according to the following four categories: (1) family members residing in the home (parents, siblings, grandparents, and great-grandparents), (2) teachers (classroom teachers, other school teachers, and teachers outside of the school), (3) friends (in the same classroom, in a different classroom in the same grade, and other friends), and (4) relatives outside the immediate family (including both adults and children). The child was then presented with a list of fourteen common social situations (shown in Table 1). For each situation, the child was asked to rate in terms of a three-point scale the relative amount of support provided by members of each of the four categories of social support providers. The method of including information about support providers enabled us to obtain information about the structure of social support within the classroom beyond that obtained by conventional measures.

Other measures. Teachers administered to the children in each class a self-inventory consisting of a set of questions designed to measure their sense of self-esteem (9 items) and feelings of isolation in the classroom (11 items) in terms of a 4-point scale given as multiple-choice responses. The self-esteem scale included questions such as "Do you think that you have some good qualities?" The section designed to test for feelings of isolation in the classroom included items such as "Do you feel happy when you are in the classroom?" (A reversed item. About half of the items in each scale consisted

of reversed items.) Children were also asked to report changes in their lives in terms of 16-item section of yes-no questions. Because children's reports of significant life changes did not attain satisfactory psychometric reliability, the results of these items will not be reported here.

Data were collected on group intelligence test scores, the number of days the children were absent from school during the academic year, and grade points (on a scale of 1-5) for each of eight subjects along with their averages at the end of the academic year. In addition, teachers were asked to complete a 22-item evaluation of each child (on a scale of 1-5) during the third trimester, and a four-item rating (also on a scale of 1-5) of the child's degree of personality-environment adjustment; that is, an evaluation of the child's personality development and adjustment to his or her social-environment. This rating involved the teacher's subjective assessment of aspects not covered by the 22-item evaluation, including the quality of the home environment, the child's peer relationships in classroom, motivation for learning, and any personality or behavioral problems.

After internal consistency of the scaled variables and differences of all variables by gender and grade were checked, correlations among these measures were computed and in turn correlated with the results of the social support studies.

RESULTS AND DISCUSSION

Providers of children's social support. Generally speaking, peers and family members (in descending order, mother, older siblings, father, grand-parents, younger siblings) were the main providers of social support for the child, while support provided by teachers and relatives was limited (see Table 2). The high average support evaluations for peers are understandable considering the social context of support situations (see Table 1) and the relatively high average number of peers who function as support providers. Results to be noted are the priority of the maternal support over paternal support, and the fact that the role of older siblings as support providers was comparable to that of father. The relatively high score for grandparents in this sample may not be generalizable to total Japanese population.

Support from the father and support from mother were significantly correlated (r = .40 and .39 respectively for boys and girls); paternal support and older sibling

4

support (in cases where there were older siblings) were also correlated (r = .40, and .55). These results may reflect either the characteristics of the particular family (i.e., the degree of supportiveness toward the younger members of the family) or those of the child (i.e., the extent of the child's need for support in the home environment).

Within the classroom, children's characteristics as providers of support to their classmates were consistent across 14 items (alpha = .94). This result is remarkable, since the measure of supportiveness was based solely on the responses by classmates and thus was free from influence of possible habitual response tendencies on the part of a given child and from individual differences in support needs among classmates. No gender difference was found in this aggregate measure of supportiveness, though girls were significantly more supportive than boys in items 3 and 4.

Structure of social support within the classroom. Social support matrices were constructed that matched support providers and support receivers in each class for each item, as well as for the aggregation over 14 items, and this matrix was used to examine the structure of social support within the classroom. The results clearly revealed a strong tendency toward gender isolation, as is shown in a sample aggregated matrix (Table 3). That is, social support between members of the opposite sex was reported to be essentially nonexistent. Though it is possible that certain social interactions that function as social support between boys and girls actually do occur in classrooms, children in higher grades in elementary school seem never to express expectations of cross-gender social support. Though we have not administered the sociometric test to the present sample, it is highly likely that such socio-matrices may also reveal gender-isolation tendencies.

The next question concerns the degree to which the support relations reported by the children were reciprocal; that is, if A reported that he/she was supported by B, did B also tend to report that he/she was supported by A? An aggregated matrix over 14 items is more appropriate here than separate matrices for each item, since the reciprocity of social support does not necessarily entail the same kind of support. As is seen in a sample matrix (Table 3), a moderate degree of reciprocity of support within the classroom was found. A comparison of 5th and 6th grade classes showed no difference in the degree of reciprocity.

Relations among social support measures and other measures. Grade-point average (8 subjects, alpha = .84), teacher evaluation (one out of 22 items was dropped, alpha = .80), and teacher rating (4 items, alpha = .62) were all positively correlated with children's self-esteem (9 items, alpha = .83) and negatively correlated with feelings of isolation within the classroom (11 items, alpha = .89) in both boys and girls. Five out of six of these correlation coefficients were significant at least at the 0.05 level. Therefore, these measures reflect somewhat overlapping aspects of children's personalities as well as the children's degree of social adjustment in the school environment.

Relations between these measures and social support measures were different for boys and girls. While boys' feelings of isolation in the classroom were significantly and negatively correlated with the amount of support obtained from classmates, girls' feelings of isolation was negatively correlated with the amount of support from their classroom teachers. Both boys and girls who were reported by peers to provide much support to classmates were rated highly by teachers. However, it was only in boys that good providers of supports to classmates were found to rank both high in academic achievement and low in feelings of isolation.

Paternal support was the most remarkable variable among family support measures that was consistently related with children's school adjustment, especially among boys. Boys with less support from the father had low self-esteem, high feelings of isolation in classroom, and ranked low in academic achievement and teacher's ratings. In girls, less support by the father was correlated with feelings of isolation, while less support by the mother was correlated with low teacher's ratings.

In order to ascertain the above separate correlational results at the individual level, two subgroups of children, those with support from the father ranked at the high and low ends of the scale, were isolated and compared for other major variables. A Z-score was obtained for paternal support score (separately for boys and girls). Twenty-six children whose Z-score was greater than or equal to 56 were selected as a "High Father Support Group" (HFS). This group consisted of 13 boys and 13 girls, of whom 12 were fifth graders and 14 sixth graders. The "Low Father Support Group" (LFS, Z-score lower than or equal to 41) consisted of 14 boys and 13 girls, 14 of whom were fifth graders and 13 sixth graders. Other major variables (support by the mother,

support by older siblings, support by the classroom teacher, support by classmates, support provided to classmates, feelings of isolation, self-esteem, teacher's evaluation and rating, grade-point average and intelligence test scores) were also standardized separately for boys and girls, and then each child was classified as belonging to one of three categories: L ("low", Z less than or equal to 41), M ("medium", Z between 42 and 58), or H ("high", Z greater than or equal to 59) groups, respectively, for each of these variables.

A 2 x 3 contingency table (that is, HFS vs. LFS x L, M, and H) for each variable was generated (see Figures 1 and 2). Though not always statistically significant, the following general tendencies were observed. First, HFS-LFS classification tended to be concordant in their classifications into the H and L groups with regard to support by older significant support providers (i.e., mother, older siblings, and classroom teacher), but relatively unrelated in their classification with regard to the support received from and given to their classmates. Secondly, HFS-LFS classification tended to be correlated with classification into the H and L groups according to interpersonal and personality adjustment scales (that is, in terms of self-esteem and feelings of isolation, as well as teacher's rating). But the HFS-LFS classification was not significantly related with other formal measures of teacher evaluation, grade-point average, and intelligence test score. Therefore, it can be inferred that lack of paternal support is mainly related with problems of personality adjustment and interpersonal relations with older significant people.

In a final analysis of the data, four HFSs (two boys and two girls) and four LFSs (two boys and two girls) were selected, and their individual profile of Z-scores for the above variables were compared (see Figures 3 and 4). An examination of the profiles suggested the possibility of a mitigating effect of high support by classmates in the LFSs. That is, even though paternal support was extremely low, if the children had access to a high degree of support from classmates, their scores on self-esteem, feelings of isolation, and teacher's rating were higher than those of their counterparts. Teacher's support by itself did not make a difference among the LFS children. In the HFS group, whether high paternal support was combined with high maternal and classmate support seemed to make difference in other measures. Again, teacher support by itself seemed to make no difference within this group. Though the sample size was quite small and chance factors may be involved, these results suggest the value of closely scrutinizing

children's social support network systems in order to reveal their relationships with social and personality adjustment in elementary school.

CONCLUSION

It is certain that the generalizability of these findings should be determined by looking at larger samples. The results of the follow-up study a year later for half of the present sample may yield a somewhat different picture from that given in the present study. Still, intensive analyses such as the one presented here may yield significant findings regarding the social world of school-age children. In particular, a closer look into such aspects as the structure of social support within a classroom, the characteristics of children both as receivers and providers of social support in the classroom, and the negative influence of the lack of paternal support, especially for boys, have all been highlighted as important questions for future research.

Table 1   Fourteen-item situations related to social support

- -

1 When something very sad happens to you.

2 When you are very mad after quarreling with someone at school.

3 When something very delightful happens to you.

4 When you are very worried about family matters.

5 When you would like to know something about certain games or TV programs.

6 When there is something you don't quite understand at school.

7 When you have homework assignments that you cannot do well by yourself.

8 When you need help in making something.

9 When you would like to go out to play with someone.

10 When you would like to play games such as cards or video games.

11 When you feel like chatting with someone over phone.

12 When you have lost or broken something very precious.

13 When you would like to get something expensive that you cannot afford.

14 When you do not feel well.

- -

Table 2   Means and standard deviations for support scores

by each category of providers summed over 14 situations

Provider of support	No. of subjects	Mean No. of Providers	Total support score	
			Means	SDs
Family members				
Father	91	1.0	7.0	4.7
Mother	91	1.0	11.4	4.9
Older siblings	61	1.4	8.7	6.5
Younger siblings	42	1.3	3.5	4.4
Grandparents	56	1.7	5.6	5.8
Others	7	1.1	0.7	1.3
Teachers				
Classroom teacher	91	1.0	2.2	2.3
Other school teachers	88	3.0	0.7	1.2
Teachers outside of school	64	1.4	0.2	0.5
Peers				
Same classroom	91	4.7	32.1	24.8
Other class, same gr.	65	2.2	11.8	12.8
Other	15	1.9	9.9	12.3
Relatives				
Adults	58	2.9	3.1	4.4
Children	56	3.0	2.3	3.4

Note.-- Maximum possible total support score per one provider = 28.

Table 3   Sample social support matrix of a classroom (Aggregated over 14 items)

	1	2	3	4	5	6	7	8	9	10	11	12	13	51	52	53	54	55	56	57	58	59	60	61
1	0	27	16	2	0	14	0	0	0	0	24	0	0	0	0	0	0	0	0	0	0	0	0	0
2	18	0	15	0	0	13	9	0	0	0	15	0	6	0	0	0	0	0	0	0	0	0	0	0
3	9	12	0	0	0	0	9	0	0	4	9	0	6	0	0	0	0	0	0	0	0	0	0	0
4	3	0	0	0	1	0	0	0	0	1	0	3	0	0	0	0	0	0	0	0	0	0	0	0
5	6	2	0	0	0	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	0	2	1	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7	2	1	0	0	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8	4	0	0	0	0	1	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9	11	11	9	3	1	3	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10	8	0	0	12	0	0	0	0	0	0	10	12	0	0	0	0	0	0	0	0	0	0	0	0
11	12	12	11	0	0	0	8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12	0	0	0	0	0	0	2	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0
13	6	4	0	8	2	3	0	0	2	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0
51	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5	9	0	0	7	7	0	4	0
52	0	0	0	0	0	0	0	0	0	0	0	0	0	14	8	0	0	16	5	6	6	0	6	0
53	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	13	0	0	7	10	17	22	0
54	0	0	0	0	0	0	0	0	0	0	0	0	0	0	24	0	0	0	18	10	17	12	20	0
55	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	7	0	25	0	0	0	17	25	0
56	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0	0	1	0	0	0	0
57	0	0	0	0	0	0	0	0	0	0	0	0	0	2	2	7	3	0	0	0	0	0	0	0
58	0	0	0	0	0	0	0	0	0	0	0	0	0	2	16	11	0	5	0	1	0	0	0	2
59	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0	15	18	0	0	0	12	0
60	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	25	18	0	0	9	15	0
61	0	0	0	0	0	0	0	0	0	0	0	0	0	15	0	0	0	0	0	0	0	15	0	0

Note.-- Ss. 1-13 = boys; 51-61 = girls. Receivers (i.e., reporters) of support are arranged in rows, and providers (i.e., nominees) of support in columns. Possible scores range = 28 (the highest support) to 0 (no support).
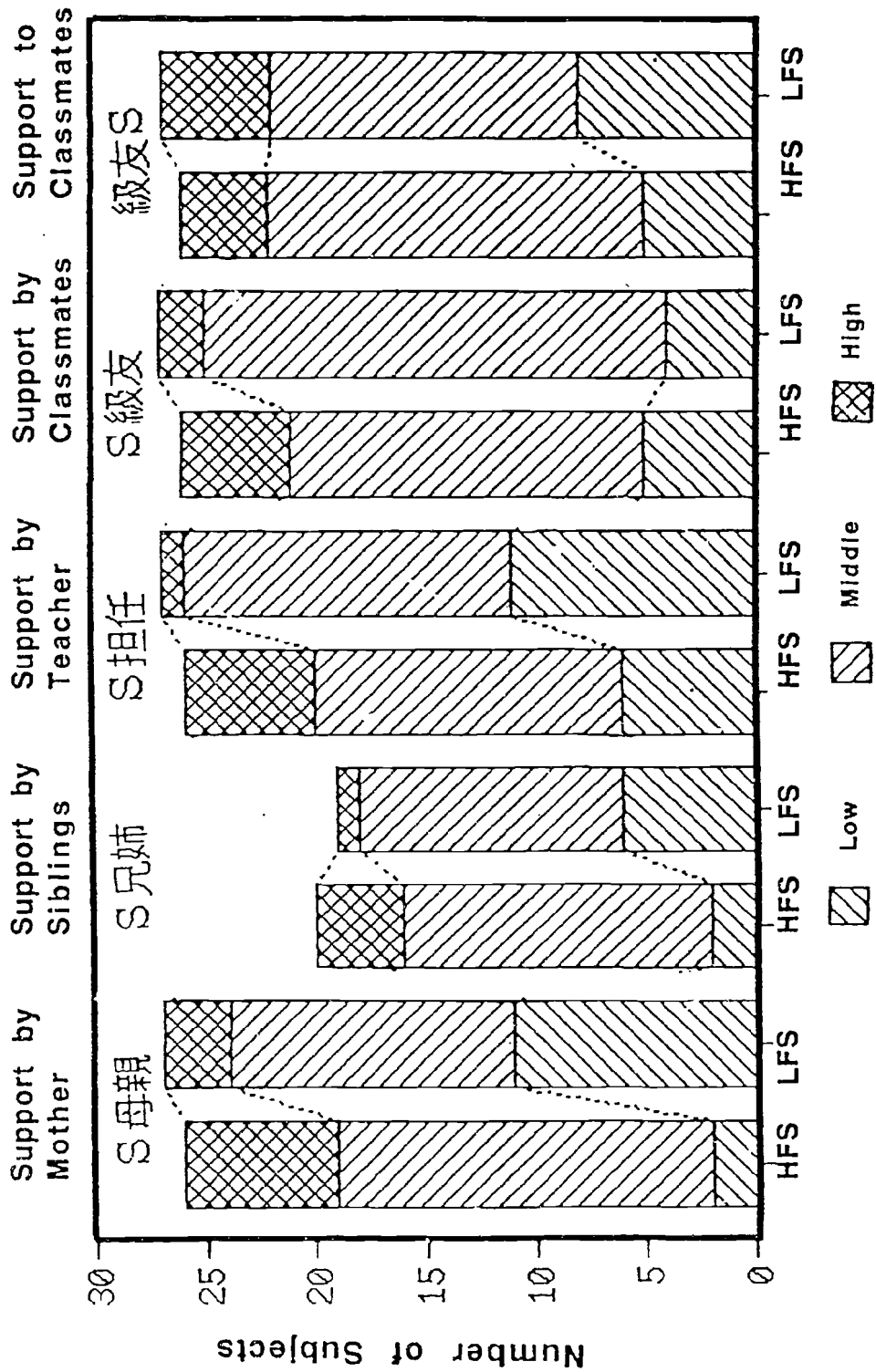
Figure 1 Comparison of **HFS** (high support by father) and **LFS** (low support by father) children with regard to their support by **mother**, elder-**siblings**, classroom **teacher**, and **classmates**, and their support **to classmates**.
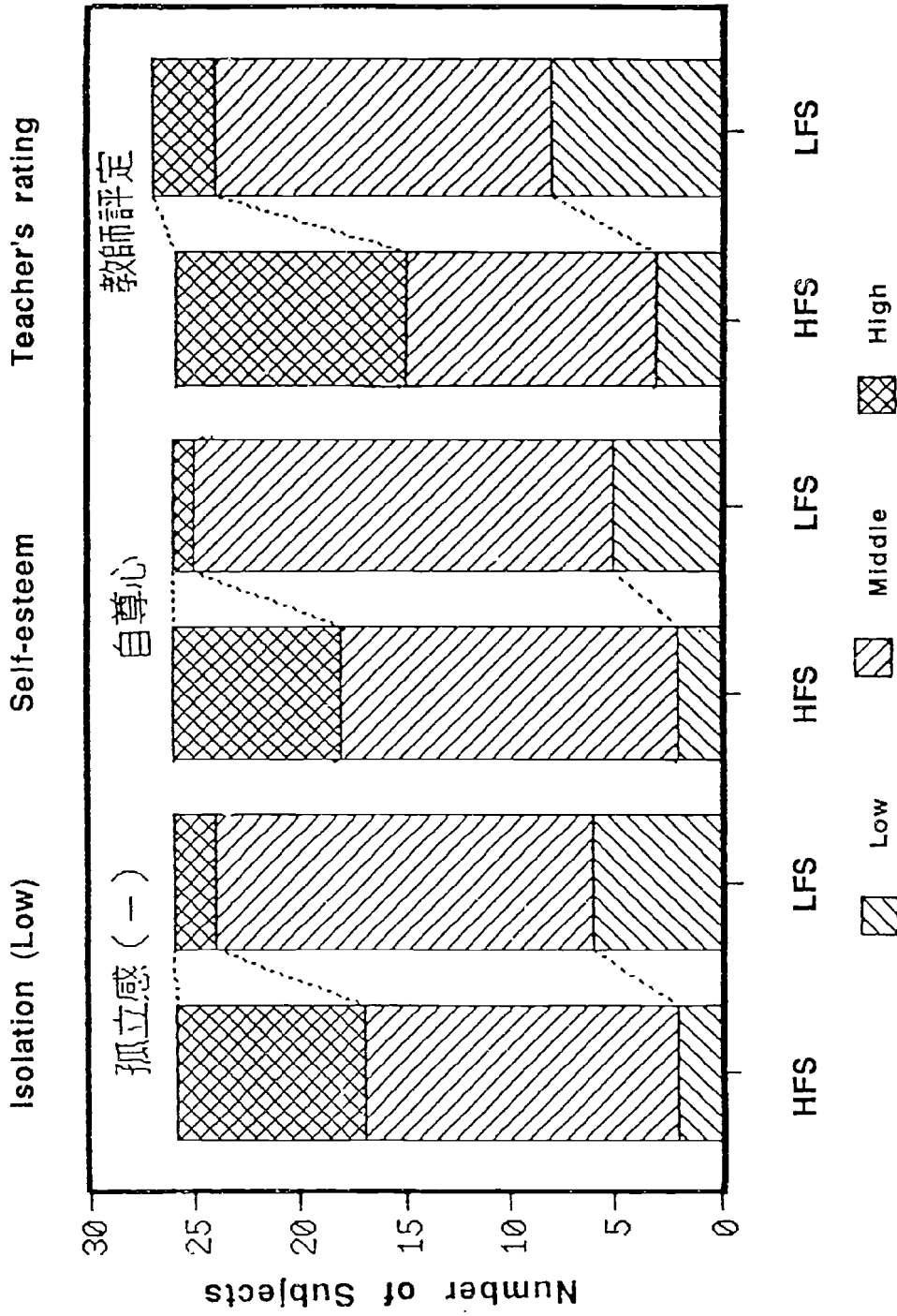
13

14

Figure 2 Comparison of **HFS** (high support by **father**) and **LFS** (**low** support by **father**) children with regard to their three scales of school adjustment

Z-Score

80 70 60 50 40 30 20 10

Support by Father | Support by Mother | Support by Siblings | Support by Teacher | Support to Classmates | Support by Classmates | Isolation (Low) | Self-esteem | Teacher's Rating | Teacher's Evaluat. | GPA | IQ

— CASE 43 (6M)   ---- CASE 68 (6M)   ·· CASE 85 (6F)   -- CASE 65 (6F)*

Note.-- Symbol * indicates the case with no older-sibling.

Figure 3 Profiles of four LFS (low support by father) children
with regard to their social support and other measures
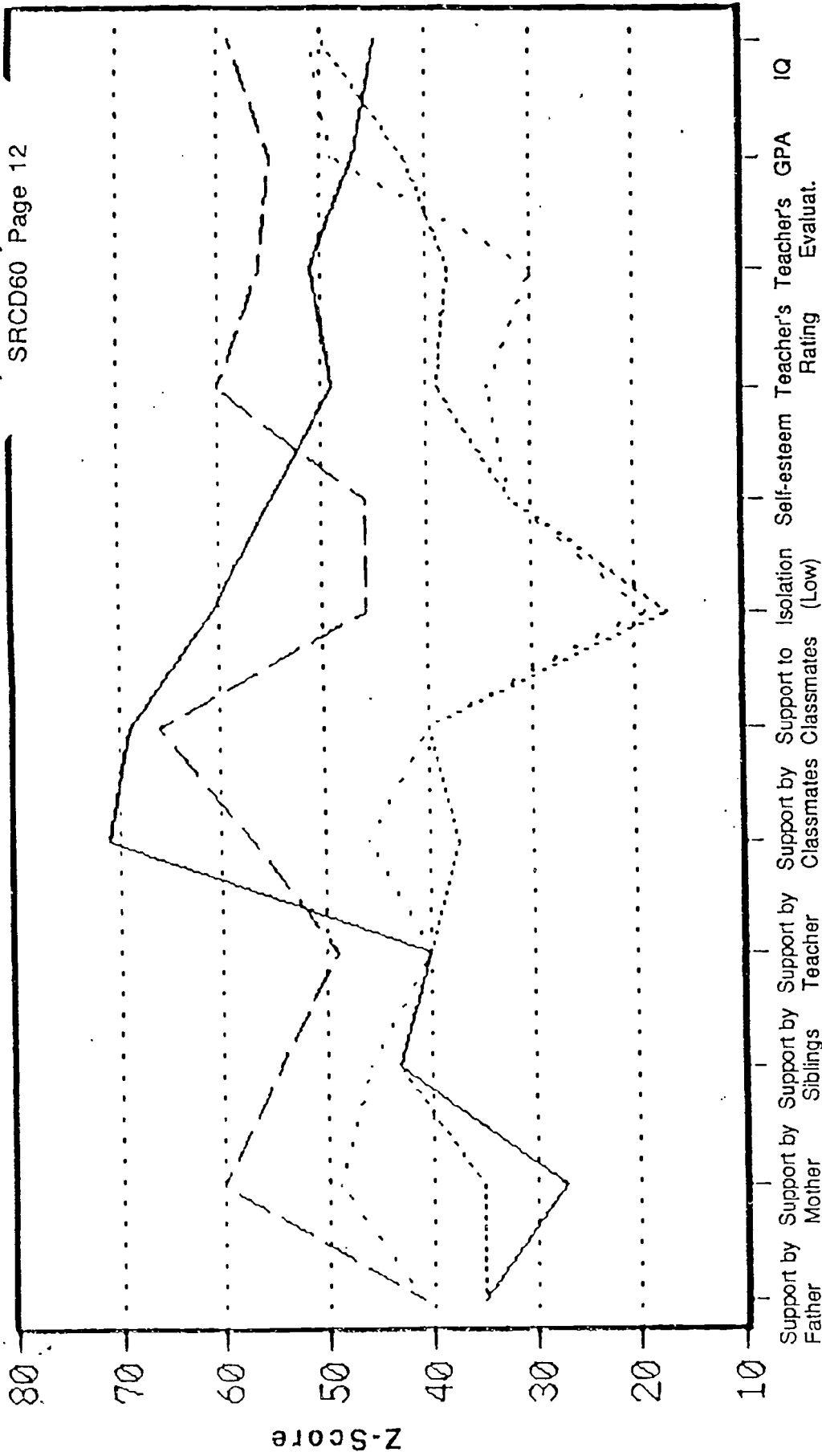
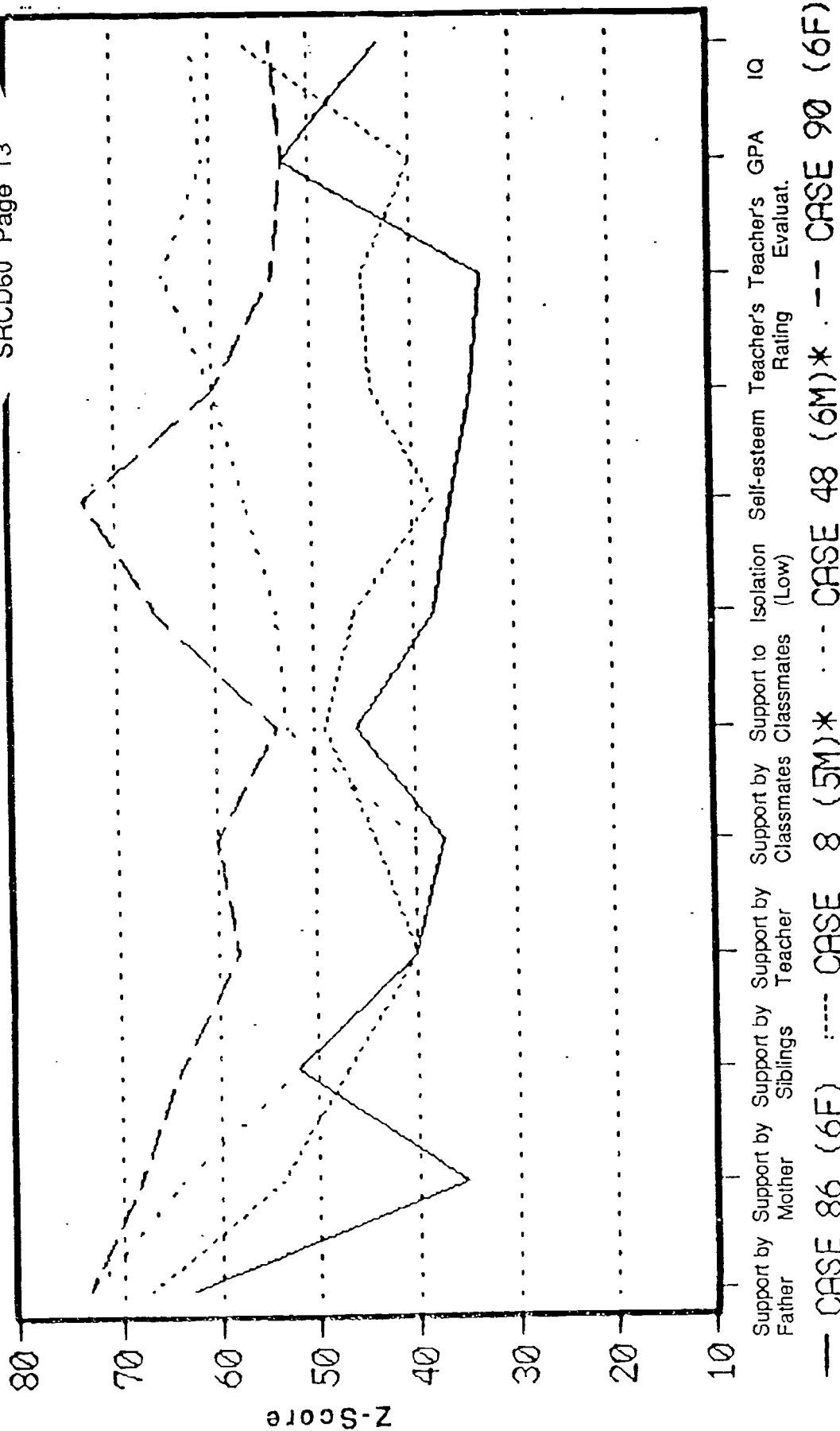17   18

Kojima & Miyakawa
SRCD60 Page 13

Figure 4 Profiles of four HFS (high support by father) children
with regard to their social support and other measures

Note.-- Symbol * indicates the case with no older-sibling.

— CASE 86 (6F) :— CASE 8 (5M)* ··· CASE 48 (6M)* -- CASE 90 (6F)

Support by Support by Support by Support by Support to Isolation Self-esteem Teacher's Teacher's GPA IQ
Father   Mother   Siblings   Teacher   Classmates Classmates   Rating   Evaluat.
                                                            (Low)

Z-Score

80 70 60 50 40 30 20 10

19

20