March 31, 1964

An Interim Brief on the NIMH-Iowa Follow-up Studies relative to Mental Retardation, Dependency and Maternal Deprivation

The following includes a few of the highlights from the Iowa Follow-up Studies relating to the care of children outside of their own homes.

The National Institute of Mental Health is presently carrying on three follow-up studies to determine the adult status of children previously studied by the Iowa Child Welfare Research Station, State University of Iowa, in cooperation with the Children's Division, Iowa Board of Control of State Institutions, wherein modes of intervention were initiated in infancy or early childhood. These include: (1) "A Follow-up Study of an Earlier Longitudinal Study of One Hundred Adopted Children;" (2) "A Study of the Effects of Differential Stimulation on Mentally Retarded Children;" and (3) "Children with Inferior Social Histories; their Mental Development in Adoptive Homes." In all three of these studies, the children were considered to be biologically sound and without demonstrable abnormality as determined through diagnostic evaluation by competent pediatricians. With the inclusion of the present follow-up studies, this covers a life span of 30 years with the present ages of these children, now adults, being within a range of 25 to 35 years of age.

In the first study (1), all adoptive parents and adopted children have been located after a lapse of 16 years since the last contacts in the earlier study. Interviews with adoptive parents and their adult adopted children are nearing completion. It is hoped to start analysis of data in the near future. Preliminary indications are that these adopted children as adults ing at levels consistently higher than would have been predicted from the intellectual, educational, or socioeconomic level of the biological parents, and equal to the expectancy for children living in the homes of natural parents capable of providing environmental impacts similar to those which have been provided by the adoptive parents.

In the second study (2), all cases have been located after a lapse of 21 years, all interviews completed, with the data presently being processed.

362.7 Int

> BOARD OF CONTROL OF STATE INSTITUTIONS DES MOINES, IOWA

With reference to the third follow-up study (3), early efforts to locate adoptive parents and children are in progress, and several interviews have been completed. It appears that it will be possible to locate most, or all of the adoptive parents and children, in this third study after a time interval of 21 years. This study involves children whose biological mothers were considered to be mentally retarded. The children had been separated from their natural mothers in early infancy, either by voluntary release, or by court commitment, and subsequently placed in adoptive homes prior to their having reached of age. A total of 87 cases are involved wherein IQ's were obtained on each of the mothers, with none having an IQ higher than 75, and the range extending down to an IQ of 32.

In this study (3), in addition to securing information on the adult status of children placed for adoption whose natural mothers were mentally retarded, intelligence tests are being administered to the second generation, that is the grandchildren of the mentally retarded, biological grandmothers. Preliminary findings point toward the conclusion that the first generation, as adults, compare favorably with the 1960 census figures of the Iowa population of comparable ages. The second generation children are testing average and above on intelligence tests.

Again referring to the second study listed above (2), findings are particularly startling. It will be recalled that in the original study, the 13 children in the experimental group, all mentally retarded at the beginning of the study, experienced the effects of early intervention which consisted of a radical shift from one institutional environment to another, which provided a much higher degree of one-to-one mother surrogate-child emotional relationships, and superior stimulation. This was followed by placement in adoptive homes for 11 of the children.

The contrast group of 12 children, initially at a higher level of intelligence, were exposed to a relatively non-stimulating orphanage environment over a prolonged period of time. In the initial study, children in the experimental group showed a remarkable increase in rate of mental growth, whereas the children in the contrast group showed progressive mental retardation.

In the adult follow-up study the two groups continued to be remarkably divergent. All 13 children in the experimental group are self-supporting, and none is a ward of any institution, public or private. 11 of the 13 children are married, and 9 of these have children.

2

In the contrast group of 12 children, 1 died in adolescence following continued residence in a State institution for the mentally retarded; 5 or 40% are still wards of State institutions; 1 is in a mental hospital; and the others are in institutions for the mentally retarded. Of those no longer wards of State institutions, only 2 have married, and 1 of these is divorced. Out of 4 females in the contrast group, 3 were sterilized in late adolescence to preclude the possibility of procreation in the event that they were placed out on work placements at older ages.

In education disparity between the two groups is great. For the experimental group the median grade completed is 12th grade, whereas the median for the contrast group is less than 3rd grade completed. In the experimental group 4 have gone on for one or more years of college work, with one of the boys having received a B.A. degree from a university. Occupationally the range is from professional and semi-professional to semi-skilled laborers or domestics. In the contrast group 50% of them are unemployed and those that are, with the exception of one case, are characterized as "hewers of wood and drawers of water."

A particularly sobering comparison is that of the cost to the State for these two groups. We have secured information as to per capita cost per month or year for each of the years from 1932 to 1963, and are in the process of figuring the cost for each case in the experimental group and the contrast group. Preliminary indications are shocking from several standpoints. In the 1930's the monthly per capita cost at the State orphanage and at mental hospitals ranged around \$17.00 per month. This has progressively increased over the years until the present figure is considerably more than \$200.00 per month. In the experimental group the median total cost is less than \$1,000.00, whereas in the contrast group it is ten times that with a range from \$7,000.00 to \$24,000.00. One case in the contrast group can be cited wherein other than the first few months of life this individual is and has been a ward of the State institution for over 30 years. The total cost to the State in this instance has been \$24,113.07.

Mention should be made of one case in the experimental group, a girl who initially had an IQ of 35 and who has subsequently

3

graduated from high school and taken one semester of work at a college, who is married and has two boys. These boys (second generation) have been given intelligence tests and have obtained IQ's of 128 and 107. If this girl had had the continuing impact characteristic of those in the contrast group, she would have continuously resided on a custodial ward in an institution for the mentally retarded, or have been sterilized in late adolescence or early adulthood and subsequently placed out on a non-skilled labor-type of domestic employment.

Another staggering consideration is to speculatively extrapolate on the cost to the State had these comparisons started in 1963 instead of 1932 in terms of present-day costs. In the case of the example cited earlier, assuming that costs were constant from 1963 to 1993, this one case would have cost the State \$100,000.00.

From the above, and substantiated by many other supporting studies in the past 20 years, it would seem that we have adequate knowledge to implement certain programs of intervention which can be applied to counteract the devastating effects of poverty, socio-cultural deprivation, maternal deprivation, or a combination of these circumstances. Serious consideration must be expenditures in relation to prevention, rather than a limitation to tremendous costs of a curative nature. This, of course, does not preclude the need for further research and exploratory studies to determine the optimum modes of intervention and the most appropriate ages for initiating such procedures.

It should be pointed out that in the foregoing study (2), "but by the grace of God," any one of these cases in the experimental group might have experienced the impact of those in the contrast group and vice versa. This seems indeed to be a sobering thought.

Following is a list of references to the earlier published reports of these three studies:

- Skodak, Marie, and Skeels, Harold M. A Follow-up Study of 100 Adopted Children. Jurgenetic Psychol. 77 1949, Vol. 79, pp. 85-125.
- (2) Skeels, Harold M., and Dye, Harold B. A Study of the Effects of Differential Stimulation on Mentally Retarded Children. Proc. Amer. Assn. on Ment. Def., 1939, Vol. 44, No. I, pp. 114-136.
- (3) Skeels, Harold M., and Harms, Irene. Children with Inferior Social Histories; Their Mental Development in Adoptive Homes. J. genet. Psychol., 1943, Vol. 72, pp. 283-294.

4

In the present follow-up studies, the first one (1) is being carried on by the original investigators. Dr. Skodak, who is presently Director of Psychological Services, Dearborn (Michigan) Public Schools, has been made a special consultant to the National Institute of Mental Health to permit serving in this capacity, and Dr. Skeels, staff member of the Community Research and Services Branch, National Institute of Mental Health, is serving as the co-investigator as a part of his regular staff duties.

The second study (2) is also being carried on by the original investigator, Dr. Skeels.

On the third study (3) Mr. Lowell W. Schenke, Psychologist, Children's Division, Iowa Board of Control, Des Moines, Iowa, is the principal investigator, with Dr. Skeels serving as a consultant. In this study a most efficient cooperative arrangement has been made between a State and the National Institute of Mental Health. All activities in the State of Iowa, including salary and travel expenses are born by the Children's Division, Iowa Board of Control of State Institutions, inasmuch as his regular duties involve travel throughout the State. The National Institute of Mental Health has made him a special consultant for purposes of this study, and assumes the costs of his time and travel expenses outside the State of Iowa.

