Employment Experiences of Juvenile Diabetics

Some Observations Based on a Survey

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A questionnaire was sent to 408 juvenile diabetics, alumni of Camp NYDA, the summer camp of the New York Diabetes Association. The objective was to obtain a picture of the educational attainments and employment experiences of these young adults who are now eighteen years of age or older. In addition, an effort was made to delineate some of their clinical and social characteristics. Previous studies of employment of diabetic workers have been based on surveys of the policies of industrial management and the experiences of industrial physicians.[1-4] This survey attempts to investigate the other side of the coin, namely the employment-seeking experiences of the juvenile diabetic — the individual who has grown up with diabetes and who comes to his initial job with diabetes.

It is not known what selective factors were at work in the sample for which data were obtained. Those who wished to share their achievements, as well as those who looked to the New York Diabetes Association as a possible source of help, would be motivated to respond to the questionnaire. Furthermore, no attempt was made to determine the number who have died or the number of those with severe complications who were not motivated to respond. It is not possible to determine if this sample is truly representative of Camp NYDA alumni. Nevertheless, this information is unquestionably useful in bringing out the problems of these young people.

Replies were received from 123 individuals representing 30 per cent of the group. The questionnaires of 116 individuals were sufficiently complete for analysis. The data were divided into three age groupings: eighteen and nineteen, twenty through twenty-four, and twenty-five through thirty-four. This age grouping of the data permits comparison with Census Bureau data and reflects the maturing of the individual through his educational and job experiences.

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CLINICAL PROFILE (TABLE 1) RESULTS

The age at diagnosis of diabetes ranges from six months to eighteen years. The peak ages for the males are twelve and thirteen years, and for the females ten and eleven years. The duration of known diabetes ranges from four to thirty years.

All of these juvenile diabetics use insulin. The average dosages decrease for each successive age group for both males and females. The average dosage of the females is less than that of the males for all groups. Although these data are not based on longitudinal studies they appear to bear out the observation that there is a diminishing need for insulin after the adolescent becomes fully mature. Insulin dosages range widely from ten units to 160 units. Three individuals take less than twenty units.

Six individuals take oral hypoglycemic medication in addition to insulin.

The question regarding personal rating of diabetes control was asked to obtain some impression of how these young people feel about themselves. Are they, by and large, satisfied with the management and control they exercise over their condition? Whether they are justified or not, the majority express satisfaction with their diabetes control. Seventy-one, 61.2 per cent, rate their control as "good," forty-one, 35.3 per cent, as "fair," and four, 3.5 per cent as "poor."

Two individuals, a male aged twenty-six and a female aged twenty-nine, report that they are blind. The female was a personnel supervisor with a major radio network before her vision became impaired. One male, aged twenty, reports the onset of cataracts. He is an electric fork-lift truck driver. Failing vision increases the hazards of his present job and makes him apprehensive about seeking new employment. His answers to the questionnaire reflect his desperation and his need for medical supervision and vocational guidance.

TABLE 1

Clinical profile

Age group	18-19		20-24		25-34		Totals
Sex	M	F	M	F	M	F	
Number	17	16	25	21	20	17	116
Age at diagnosis							
Average	8.4	9.7	8.3	7.7	10.3	8.8	
Range	3-13	7-14	½-13	4-13	2-18	4-14	
Duration of known diabetes (years)							
Average	10.0	9.0	13.8	12.0	17.9	10.5	
Range	5-16	4-12	8-22	7-20	10-30	15-26	
Insulin dose units							
Average	76.7	59.6	66.0	49.3	55.9	43.2	
Range	50-105	15-100	25-115	20-82	10-160	15-80	
Insulin and oral hypoglycemic compound	2	2	2	—	—	—	6
Personal rating of control							
Good	9	9	14	12	12	15	71
Fair	7	7	5	4	13	5	41
Poor	1	—	1	1	—	1	4
Complications							
Blind	—	—	—	—	1	1	2
Cataracts	—	—	1	—	—	—	1

EDUCATIONAL ATTAINMENTS (TABLE 2)

Educational attainments range widely from the minimum of grade school to the acquisition of advanced degrees in the arts and sciences.

Two males have no formal education beyond elementary school. One hundred and nine of the 114 who attended high school have graduated. This represents a graduation rate of 95 per cent and stands in sharp contrast to the graduation rate of 55.76 per cent for all high school students in New York City.[5] However, it should be noted that this high graduation rate may not be typical of the total Camp NYDA alumni group. The motivations which elicited replies to the questionnaire may have weighted the results in favor of response from those with higher educational attainments.

Sixty-six of the high school graduates have gone ahead to college. Twelve have left college before graduation. Thirty-three are attending college now. Nineteen of these thirty-three are full-time students and fourteen have full-time employment and attend college at night. Twenty-one have college degrees and nine have gone

TABLE 2

Educational attainment

Age group	18-19		20-24		25-34		
Sex	M	F	M	F	M	F	Totals
Number	17	16	25	21	20	17	116
Completed grade school	17	16	25	21	20	17	116
Partial high school	4	1	—	—	—	—	5
Completed high school	12	15	24	21	20	17	109
Partial college	—	2	2	2	4	2	12
College student	8	5	10	6	4	—	33
Completed college	—	—	6	5	6	4	21
Postgraduate student	—	—	3	2	3	1	9
Postgraduate degree	—	—	—	—	2	2	4
Vocational training	1	5	5	7	9	3	30

ahead to graduate work. Four have their master's degree and two are working for their doctorate. Thirty of the group have had, or are having, some type of vocational training, either as part of secondary school education, or in addition to high school and college education.

MARITAL AND FAMILY STATUS (TABLE 3)

The marriage rate for this group of juvenile diabetics is considerably lower than that reported by the Bureau of Census for the urban population of the United States.[6] This is true for both sexes and for each age group. Eight of the thirteen married males have fourteen living children, and seven of the twenty-one married females have ten living children. Two females have experienced five miscarriages. Neither of these females has living children. Four females and the wife of one diabetic male are currently pregnant for the first time.

PRESENT OCCUPATIONAL STATUS (TABLE 4)

Occupations range from responsible positions in a number of professional areas to unskilled labor. The greater number of individuals, thirty-six or 31 per cent, fall into the category of office workers. Nineteen full-time students represent 16.3 per cent of the group. Seventeen, or 14.6 per cent, are currently engaged in professional careers. Among the males there are nine accountants, three engineers, one economist and one social worker. Among the females there is one of each of the following: librarian, occupational therapist, and teacher. The single practicing teacher is a member of a religious

TABLE 3

Marital and family status

Age group	18-19		20-24		25-34		Totals	
Sex	M	F	M	F	M	F	M	F
Number	17	16	25	21	20	17	62	54
Marriage rate								
Number	—	3	2	7	11	11	13	21
Per cent	—	18.7	8.0	33.3	55.0	64.7	—	—
Census Bureau rate	9.7	31.5	48.2	65.6	77.9	83.6	—	—
Living children								
Number with children	—	—	—	1	8	6	8	7
Number of children	—	—	—	1	14	9	14	10
Miscarriages								
Females with loss	—	—	—	1	—	1	—	2
Number lost	—	—	—	4	—	1	—	5
Current pregnancies	—	2	1*	2	—	—	1*	4

*Wife of diabetic

TABLE 4

Present occupational status

Age group	18-19		20-24		25-34		Totals	Per
Sex	M	F	M	F	M	F		cent
Number	17	16	25	21	20	17	116	100.0
Office	1	6	4	13	2	10	36	31.0
Student	7	4	5	3	—	—	19	16.3
Professional	—	—	6	2	8	1	17	14.6
Skilled	3	—	7	—	7	—	17	14.6
Housewife	—	2	—	2	—	5	9	7.7
Unemployed	2	3	1	1	1	1	9	7.7
Sales	2	1	2	—	—	—	5	4.5
Unskilled	1	—	—	—	1	—	2	1.8
Self-employed	—	—	—	—	1	—	1	0.9
Reformatory	1	—	—	—	—	—	1	0.9

teaching order and is combining her teaching with graduate work towards a master's degree in education. One other young woman is a member of a religious teaching order, but she is a full-time student at a normal school and is classified as a student. Two housewives are former teachers who are now raising families and are classed as housewives.

Skilled workers number seventeen and comprise 14.6 per cent of the group. The types of skilled craft represented by the group include carpentry, steam fitting, graphic designing, printing and photography, electronic and X-ray technology, machine tooling, business machine operation, telephone transmission, and fork-lift truck operation.

Only nine of the twenty-one married females classify themselves as full-time housewives.

Nine individuals are currently unemployed. Five are eighteen and nineteen years of age and are on the threshold of their employment experience. The two eighteen-year-old males have worked as unskilled laborers and the three females have not, as yet, had their first employment experience. Two in the oldest age group are blind and unemployable. One male and one female in the twenty through twenty-four age group are currently unemployed. The male, aged twenty-three, has no special skills. The female, aged twenty-two, has a college degree in education and child psychology. She had been rejected by the New York City Board of Education for a teaching position and her comments on the questionnaire reveal her plight in planning for a career and in seeking employment:

> The Board of Education here in the city has refused to give me a license on medical grounds. Because the field did not appear to be closed to diabetics, I was educated for the teaching profession. However, much to my heartache, I find it closed to me here in the city and in areas outside the city. Because I felt that my diabetes should not be a reason for my not obtaining a position I have been completely truthful on my application forms. However, at this time, I feel that my lying on the application blanks might be the only solution.

A number of respondents, both male and female, comment about Board of Education restrictions which barred them from teaching careers. Fortunately these restrictions no longer operate in New York City.*

The remaining occupational categories, sales, unskilled, self-employed and a single reformatory inmate, comprise 8.1 per cent of the group.

*During the past year the New York City Board of Education has lifted its restrictions on the employment of the well-controlled diabetic teacher. This change of policy followed a series of conferences with representatives of the New York Diabetes Association.

PROBLEMS EXPERIENCED AT WORK

Seventeen individuals, 14.6 per cent, indicated that diabetes has presented some problem in their work experience. The group, fifteen males and two females, comprises seven skilled workers, three unskilled workers, three office workers, two graduate students, one professional and one housewife.

All individuals relate their problem to symptoms of hypoglycemia which, with one exception, are easily controlled. The single exception is a male who has had "hundreds" of insulin reactions and on several occasions has required intravenous glucose. His work capacity and employability have suffered considerably. In addition to symptoms of hypoglycemia, three males observe that they occasionally experience symptoms related to hyperglycemia. In five instances the problem of diabetic stability is thought to be related to irregular work shifts and irregular heavy work loads. One individual, a fork-lift truck operator, as mentioned above, is handicapped in his work by the onset of cataracts.

Two young men in this group take 130 and 160 units of insulin daily. The average insulin dosage of the remainder of the group does not deviate from the averages of the entire group.

INCOME (TABLE 5)

Seventy-six respondents noted their salaries. These figures are compared with the Census Bureau analysis of income in the northeastern section of the United States.[7] It is apparent that the average income of these diabetics compares favorably with the figures provided by the Census Bureau.

EMPLOYMENT EXPERIENCES (TABLE 6)

The employment experiences of seventy-seven full-time workers are analyzed in table 6.

Forty-one of the seventy-seven full-time workers, 53.2 per cent, have been refused employment because of diabetes. No particular occupational category stands out with regard to job refusals. Approximately one half of the individuals in all the listed categories of work have had this experience.

A number of large corporations including manufacturing, telephone, public utilities, department stores, and a railroad are specifically named by the respondents as having rejected their application for employment because of diabetes. In addition many individuals were rejected by banks, brokerage houses, insurance companies, libraries, civil service systems, and boards of education.

TABLE 5

Income of seventy-six respondents

Income	Diabetic males No.	Diabetic males Per cent	Percentage male Northeast* U.S.A.	Diabetic Females No.	Diabetic Females Per cent	Percentage Female Northeast* U.S.A.
Less than $3,000	11	25.0	39.3	8	25.0	83.3
$3,000 to $5,000	18	40.9	39.4	22	68.7	14.3
$5,000 to $10,000	13	29.5	18.4	2	6.2	2.2
$10,000 and over	2	4.5	2.7	0	—	0.4
Totals	44	99.9	99.8	32	99.9	100.2

*U. S. Bureau of Census.[7]

TABLE 6

Employment experiences of seventy-seven full-time workers

Occupation	No.	Experienced job rejection	Never experienced job rejection	Experienced job rejection: Acknowledge diabetes	Experienced job rejection: Now conceal diabetes	Never experienced job rejection: Acknowledge diabetes	Never experienced job rejection: Always conceal diabetes
Office	36	19	17	10	9	7	10
Professional	17	9	8	7	2	6	2
Skilled	17	10	7	4	6	5	2
Sales	5	2	3	2	—	1	2
Unskilled	2	1	1	—	1	1	—
Totals	77	41	36	23	18	20	16
Percentages	100	53.2	46.6	29.8	23.4	25.9	20.6

There is, apparently, no consistent policy regarding the employment of juvenile diabetics. Large and small concerns, private companies and civil service systems alike have employed them and refused them employment. Some department stores employ diabetics, others do not. Some insurance companies will employ them, others will not. Similar conditions exist among accountancy, banking and engineering companies.

Eighteen of the forty-one who have been rejected for employment now conceal their diabetes when applying for work. Many respondents describe bitter experiences which compel them to deny their diabetes in order to gain employment. Sixteen of the thirty-six who have never been rejected for employment because of diabetes have always concealed their condition. Combining these two groups, thirty-four of the seventy-seven full-time workers, 44 per cent, currently conceal their diabetes when applying for work. Many respondents describe the subterfuges they use to obtain employment. False answers have been given to questions regarding diabetes and military draft status. Substitute urine specimens have been submitted at medical examinations.

It is of interest to note that the practice of concealment is much less prevalent among the professional workers. Diabetes is denied by only four of the seventeen professional workers, 23.4 per cent, in contrast to nineteen of the thirty-six office workers, 52.7 per cent, and eight of the seventeen unskilled workers, 47.0 per cent.

Forty-three individuals, 56 per cent of the group of full-time workers, have always acknowledged their diabetes when seeking employment. Twenty-three of these individuals have been refused employment because of diabetes.

DISCUSSION

Diabetes has apparently not prevented those adolescents and young adults who responded to the question-

naire from achieving an educational level which compares favorably with the general population. Vocational placements range over wide areas from the unskilled to the skilled and the professional. Income levels are related to occupations and educational achievements and reflect the ability of the juvenile diabetic to carry out the responsibilities of his work successfully.

The adult-onset diabetic has had the opportunity to prove himself as a worker before the onset of his diabetes and need anticipate little or no change in his employment status when his diabetes is diagnosed. On the other hand, the juvenile diabetic comes to his first job with diabetes and has to demonstrate his value as a worker. Because of diabetes many of these young adults are summarily rejected for employment. Bitter job hunting experiences are cited frequently by the respondents to the questionnaire. When faced with the responsibility for earning a livelihood, the barriers to employment force many who responded to the questionnaire to resort to deliberate falsification and deception. They may conceal their diabetes on application forms, resort to deception regarding their draft status, and attempt to conceal their condition at physical examinations. One can with justification lay the blame for this situation upon the archaic employment policies which still prevail among many large and small commercial and industrial firms. The obstacles to the employment of the well-controlled juvenile diabetic call for a broad educational program designed to change unenlightened employment practices wherever they may exist. The low absentee record of the well-controlled diabetic and his inclusion in all forms of group insurance without jeopardy to the employer need to be widely publicized among personnel workers, industrial physicians and labor unions.

As a result of this survey the New York Diabetes Association has established a Vocational and Counselling Service to help adolescents and young adults in the areas of social and emotional adjustment, education and career planning, and employment. It is felt that the service of such individuals will prove to be valuable to the young diabetic, his family, his physician and the community.

SUMMARY

A questionnaire was addressed to 408 juvenile diabetics (alumni of Camp NYDA) who are now eighteen to thirty-four years of age. Information on diabetic history, educational achievement, marital status, and employment experience was obtained from 116 individuals.

The majority of the respondents are functioning well in a wide variety of situations. Educational attainments are above average. Vocational placement and income reflect ability to work. However, job seeking experiences reveal the hazards and uncertainties faced by the juvenile diabetic. The findings indicate that a broad program of guidance for the adolescent diabetic, and a reorientation of employment practices are needed.

SUMMARIO IN INTERLINGUA

Experientias Occupational de Diabeticos Juvenil: Observationes Basate Super le Resultatos de un Enquete

Un questionario esseva adressate a 408 diabeticos juvenil (alumnos del Campo NYDA) de etates de inter dece-octo e trenta-quatro annos. Informationes in re le historias de diabete, le attingimentos educational, le stato marital, e le experientias occupational esseva obtenite ab 116 del 408 subjectos. Le majoritate del respondentes functiona ben in un grande varietate de situationes. Le attingimentos educational esseva plus que le media. Le experientias in le effortio de trovar un empleo revela le hasardos e le incertitudes con que le diabetico juvenil se trova confrontate. Le constatationes indica que un comprehensive programma de consilio pro le diabetico adolescente e un re-orientation del practicas de empleo es requirite.

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