

Transsexualism. Effect on Rate and Density-Pattern of Change of Residence

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A number of searching studies on transsexualism have been published during recent years (Roth and Ball, 1964; Benjamin, 1966; Wålinder, 1967). In the present paper we shall attempt to demonstrate that transsexualism has another direct social consequence besides the large risk of suicide which one of us has already demonstrated (Wålinder, 1967). Our study was prompted by our experience that transsexuals change their address unusually often in comparison with others.

MATERIAL AND METHODS

By transsexuals we mean persons who are convinced that they belong to the sex opposite to that in harmony with their physical attributes, and who long to undergo a "change in sex" and to be accepted by their fellow-men as belonging to the opposite sex.

We started with 43 transsexuals (30 men and 13 women) assembled between April, 1963, and 31 December, 1965. One of us examined each one of them personally, according to a pre-arranged procedure (Wålinder, 1967). All were over 15 years of age when first examined and none showed any signs of psychosis. Excluding the subjects born or living outside Sweden left 37 (26 men and 11 women). The following is the breakdown of these 37 by age and sex when we finished our investigation on 1 January, 1967.

Age in years	Men	Women	Both sexes
20-25	9	4	13
25-30	8	5	13
30-35	3	-	3
35-40	4	-	4
40+	2	2	4
All ages	26	11	37
Mean age	29.0	28.4	28.9

Each of the 37 was matched with three same-sexed persons born directly before or after them

in the same parish. After this, we listed the names of all the parishes in which the transsexuals and their controls had lived from the time they were born until 1 January, 1967.

We then determined, firstly, whether the transsexuals showed any particular tendency regarding the density of the population in the places to which they moved. In this we were aided by the fact that every Swedish parish (smallest administrative unit in Sweden) is classified into one of eight classes depending on the percentage of its inhabitants living in aggregates of at least 200 persons living in dwellings not more than 200 metres apart. In the lowest-density parishes by this standard none of the inhabitants live in aggregates of this density, in the next lowest-density parishes 0.1-9.9 per cent. do, in the next 10.0-29.9 per cent., and so on by 20's per cent. up to 90.0-99.9 per cent., and finally in the highest density parishes all the inhabitants live in aggregates of at least these proportions.

In the second place, we determined how many times the transsexuals moved in comparison with the controls. For this purpose, we only noted the number of times the subjects moved from one parish to another, it being hard to obtain information on intra-parish moves.

RESULTS

Table I shows the density of the parishes in which the transsexuals and their control subjects lived when they were 15 years old, and on 1 January, 1967, on which date they were 28.9 years old, on the average. Full data are lacking for one control emigrating before the age of 15 and another emigrating before the end of 1966.

The transsexuals and controls did not differ in distribution between parishes of different densities when they were 15 ($p \approx 0.70$), at

TABLE I
Percentage of Inhabitants in Subject's Parish Living in Built-up Area

Percentage	At Age 15		On 1.1.1967	
	Trs.	Con.	Trs.	Con.
100	14	38	24	35
90.0-99.9 ..	12	36	4	34
70.0-89.9 ..	4	11	5	9
50.0-69.9 ..	-	1	-	5
30.0-49.9 ..	4	11	2	11
10.0-29.9 ..	1	4	2	7
0.1-9.9 ..	1	2	-	-
0	1	7	-	8
Total	37	110	37	109

which age 38 and 32 per cent. of the transsexuals lived in the two highest-density classes of parish against 35 and 33 per cent. of the controls.

On 1 January, 1967, the picture was different. On this date, 65 per cent. of the transsexuals lived in the highest-density class of parish against only 32 per cent. of the controls ($p < 0.001$).

Table II shows the number of inter-parish moves per subject before the age of 15, and from

TABLE II
Number of Inter-Parish Moves Before and After the Age of 15

	Before		After	
	Trs.	Con.	Trs.	Con.
0	12	58	7	47
1	8	26	8	29
2	9	13	6	9
3	4	4	4	9
4	1	3	2	2
5	1	1	3	5
6	1	1	2	1
7 or more ..	1	4	5	7
No. of persons	37	110	37	109
No. of moves ..	64	123	122	177

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(Received 10 June, 1968)

then on until 1 January, 1967. The same two controls are missing from these figures.

Up to the age of 15 the transsexuals had moved into 1.7 parishes on the average and the controls into 1.1; the difference here borders on significance ($0.02 < p < 0.05$). By 1 January, 1967, the transsexuals had moved into 3.3 parishes on the average since they were 15, but the controls into only 1.6. The probability that this difference was due to chance is less than one in a hundred.

DISCUSSION

As significantly many transsexuals are brought up in adverse home surroundings (Wälinder, 1967), their greater number of moves before the age of 15 might have been due more to family circumstances than to their transsexualism. The difference in their migratory pattern after the age of 15, however, we consider to be the direct result of their transsexualism, to the immense strain which their anomaly put upon their relationships in the communities in which they lived. This we believe to be the cause both of their greater tendency to move to more densely settled areas than the controls, and their greater number of moves on the whole.

SUMMARY

Comparison of 37 transsexuals with controls matched for sex, age and place of birth showed that the transsexuals moved significantly more often to more densely settled areas and also moved a significantly greater number of times.

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