

# The prevalence of transsexualism in the Netherlands

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The prevalence of transsexualism in the Netherlands was estimated by counting all the subjects who were diagnosed as transsexuals by psychiatrists or psychologists and were subsequently hormonally treated and generally underwent sex-reassignment surgery. At the end of 1990, 713 Dutch-born transsexuals received treatment (507 men, 206 women). This amounts to a prevalence of 1:11,900 for male-to-female transsexualism and 1:30,400 for female-to-male transsexualism (population age 15 and above in both groups). The sex ratio was about 2.5 men to 1 woman. The most important reason for this relatively high prevalence seems to be the benevolent climate for the treatment of transsexualism in the Netherlands.

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In 1988 our clinic presented figures on the prevalence of transsexualism in the Netherlands. Data were presented on the number of cases that applied for sex-reassignment treatment between 1976 and 1986 (1).

This report pointed out that our clinic finds itself in a favourable position to assess the prevalence of transsexualism in the Netherlands. About 97% of all hormonally treated transsexuals are treated at our centre; further, the social climate in the Netherlands is such that transsexuals enjoy a reasonable degree of acceptance: the costs of their sex-reassignment are fully reimbursed and the law enables a change of legal sex status. The latter situation has been prevalent since approximately 1984.

It seemed of interest to assess the prevalence of transsexualism again over the years following 1986, when the above-described conditions for transsexuals to present themselves for treatment had existed for a number of years.

In our article from 1988, the prevalence of transsexualism was higher than previously reported (1:18,000 men and 1:54,000 women). Tsoi (2) has since published much higher figures for Singapore, based on data collected up to 1986.

As in our report, the sex ratio was 3 men to 1 woman in Singapore. Interestingly, in central and eastern Europe the sex ratio shows the opposite pattern. Godlewski (3) found a sex ratio of 5.5 women to 1 man in his material, a trend also observed in Russia, Czechoslovakia and Bulgaria (personal com-

munications). This was another motivation to review our data collected since 1986.

## Material and methods

Gender-dysphoric subjects contacting the gender team at the AZVU are seen at first by a specialized psychiatrist or clinical psychologist. After a period of intensive interviews the psychiatrist or psychologist decides whether the patient meets the criteria of transsexualism, defined by Wälinder (4).

These criteria are as follows:

- 1) a sense of belonging to the opposite sex, of having been born into the wrong sex, of being one of nature's extant errors;
- 2) a sense of estrangement from one's own body, all indications of sex differentiation being considered as afflictions and repugnant;
- 3) a strong desire to resemble the opposite sex physically via therapy, including surgery; and
- 4) a desire to be accepted by the community as belonging to the opposite sex.

A number of patients experience problems with their gender identity or role that can be resolved by methods other than physical reassignment. In this study only the subjects who actually started with hormonal treatment are counted as transsexuals. A few cases may have had medical contraindications for endocrine treatment and are thus not included in this study.

For the assessment of the present prevalence, sub-

jects were selected from the registers of the Department of Endocrinology at the AZVU. Records were kept of in which year each subject visited the clinic for the first time and if (and when) hormonal treatment had been started. The country of origin was also recorded.

To calculate the prevalence, information about age- and sex-specific groups of the Dutch population was needed. This was provided by the Centraal Bureau voor de Statistiek (Government Office of Statistics) in Voorburg, the Netherlands.

## Results

At the end of 1990, the AZVU was giving hormonal treatment to 766 transsexual patients (713 born in the Netherlands). This last figure is significant, as the correct estimation of prevalence rates in the Netherlands must exclude subjects born elsewhere seeking sex reassignment in the Netherlands. The 713 transsexuals born in the Netherlands included 507 (71%) male-to-female and 206 (29%) female-to-male transsexuals.

Every patient in both groups of transsexuals was at least 15 years old; the prevalence therefore had to be estimated by relating the number of transsexual patients to the total number of people  $\geq 15$  years in the Netherlands.

At the end of 1990, the population of the Netherlands included 6,019,546 resident men with an age of 15 years or more; the same age group for women consisted of 6,252,566 subjects. It is important to note that these numbers include people of various countries of birth living in the Netherlands. This implies that the prevalence is being underestimated.

Based on these assumptions, the prevalence of M-F transsexualism at the end of 1990 was 1:11,900. The prevalence of F-M transsexualism was 1:30,400.

## Discussion

In 1988 our clinic reported the prevalence of transsexualism in the Netherlands to be 1:18,000 men and 1:54,000 women based on data collected up to the end of 1986. Based on our figures between 1987-1990, we observed a rise of the prevalence to 1:11,900 men and 1:30,400 women (a 51% increase in men and 78% in women). These figures are still only approximately one fourth of the prevalence rate of Singapore (2). A factor in the high prevalence rate of transsexualism in the Netherlands is in all likelihood the benevolent climate for transsexuals to un-

dergo treatment and to assume a new civil status. This assumption was also put forward by Tsoi (2) for Singapore, and yet the prevalence in the Netherlands is substantially lower than in Singapore. As yet we have no other explanation to offer. In accordance with earlier findings (5-7) and also those of Tsoi (2), the sex ratio remained remarkably similar (2.5 men versus 1 woman) but in sharp contrast with the ratios found in central and eastern Europe (3). The explanation for this discrepancy is only speculative. As argued earlier (8), such factors as diagnostic criteria, the societal attractiveness of living as a woman and the more solid adjustment that female-to-male transsexuals generally display could potentially be factors accounting for the above difference in sex ratio. The greater accessibility to central and eastern Europe may provide an opportunity to study this enormous difference in sex ratio in greater detail. Insight into such an enigmatic condition as transsexualism may be advanced by attempts to determine why so many more women were afflicted with gender dysphoria in the former communist countries.

An attempt to explain the skewed sex ratio of 3 men versus 1 woman in our part of the world comes from Money (9). Starting from the observation that, in somatic sexual differentiation, something must be added to the basic female pattern in order to become male, Money speculates that the same might apply to the formation of gender identity in men. This more complex course of development in men could render the development of gender identity more vulnerable in men than in women.

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