

# MALE AND FEMALE TRANSSEXUALS: A COMPARISON

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## ABSTRACT

*The aim of this study is to describe and compare the characteristics of 320 male and 130 female transsexuals in Singapore. The subjects were given a semistructured psychiatric interview. The results showed that the males were slightly younger, had less education and held lower level jobs. Their occupational preferences were reversed. The male transsexuals started petting, sexual intercourse and having partners about one to two years earlier, but they cross-dressed four to seven years later. Both males and females were homosexually orientated. Other studies showed that late maternal age was associated with homosexuality, but not with transsexualism. These studies also confirmed that transsexualism had its onset in early childhood, and that cross-dressing was an early feature. The Singapore 'transsexuals went through a "homosexual" and a "transvestite" phase before they became a transsexual. Western transsexuals exhibited both homosexual and heterosexual behaviour, and some were married to the opposite sex partners. Male prostitution was reported in many studies.*

*Keywords: female transsexualism, male transsexualism, sexual behaviour, sexual development*

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## INTRODUCTION

The aim of this study is to describe a large series of male and female transsexuals and compare their similarities and differences on variables which include their age on presentation, race, education, occupations, parents, siblings and psychosexual development. Male and female transsexuals were known to exist since antiquity. Their historical origin has been reviewed by Green<sup>(1)</sup> for male transsexualism and Lothstein<sup>(2)</sup> for female transsexualism. The first sex change operation was reported by Abraham<sup>(3)</sup>. The term "transsexualism" was first introduced into the English medical literature by Benjamin<sup>(4)</sup> who differentiated transsexuals from the rest of the transvestites because of their wish to change their anatomical sex. Before that, the literature did not clearly differentiate transsexuals from homosexuals and transvestites. Since then there had been numerous reports and studies on transsexualism, but no systematic studies on large samples comparing male and female transsexuals in this region. One of the earliest series was by Randell<sup>(5)</sup> who described 37 male transsexuals. Pauly<sup>(6)</sup> was able to collect only 100 cases from the world literature on male transsexualism up to 1964. Benjamin<sup>(7)</sup> collected the largest series of 152 cases to-date. Other early workers included Ball<sup>(8)</sup> 30 cases, and Hoenig<sup>(9)</sup> 60 cases. Reports on female transsexuals followed later, but the numbers were smaller. Pauly<sup>(10)</sup> was able to collect only 80 female transsexuals from the world literature up to the time of writing. For Singapore, Tsoi et al<sup>(11)</sup> reported on 56 male transsexuals, and Tsoi and Kok<sup>(12)</sup>, on 20 female transsexuals. Except for the report of Kockott and Fahrner<sup>(13)</sup> on 37 male and 21 female transsexuals, none of the previous studies made systematic comparisons between male and female transsexuals. They found that female transsexuals were closer to their parents and siblings and had more stable partnerships with same sex partners.

## MATERIALS AND METHOD

The subjects were 320 male transsexuals and 130 consecutive female transsexuals who were examined by the author when they applied for the sex reassignment surgery at the Department of Obstetrics and Gynaecology, National University of

Singapore, during the period 1972 to 1988. They were included only if they satisfied the DSM III criteria for transsexualism which are as follows: (1) a sense of discomfort and inappropriateness about one's anatomical sex, (2) wish to be rid of one's genitals and to live as a member of the other sex, (3) the disturbance has been continuous for at least two years, (4) absence of physical intersex or genetic abnormality, and (5) not due to another mental disorder, such as schizophrenia.

All the subjects were examined by the author on several occasions. The examination consisted of a detailed psychosocial assessment which included information on their parental background, parent's ages, sibling order, birth and early childhood, upbringing, educational history, occupational history, sexual development and social life, and that included a series of questions on their psychosexual development eg the first time they had cross-gender feelings, infatuation, petting, cross-dressing, sexual intercourse, a steady partner, and cross-dressing in public. The numerical data were coded and analyzed by the IBM 3081 mainframe computer using the software packages SPSSX which also provided the statistical calculations. The statistics used were chi-square and two tailed t-test.

## RESULTS

The findings are divided into four sections: basic characteristics (age, race, education, occupation), parents and siblings, psychosexual development and sexual behaviour.

### Basic Characteristics (Table I)

Their ages on their first visit ranged for male from 14 to 47 years with the mean at 23.5 years, and for female from 17 to 45 years with the mean at 24.9 years. Most of the males were between 21 and 35 years with very few males below 18 years (only 19 or 6%). Most of the females were between 21 and 35 years with very few females below 20 years (only 7 or 5%). Both groups were uncommon above 35 years (only 6 or 2% males and 5 or 4% female). On the average, the females were about 1 year older than the males.

The racial distribution for male transsexuals was similar to the Singapore general population which has 75% Chinese, 15% Malay, 8% Indian and 2% others, but for the female transsexuals, Chinese were over-represented (86%). The minority race "others" was also over-represented for both sexes. There was no significant differences in the educational status of the males or females, although there was slightly more females (23%) who had post secondary education than the males (14%).

Their occupations were classified in two ways: (1) according to social class, and (2) according to male or female type of jobs. There were more males in the lower occupational class than females. This was mainly due to the male transsexuals

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taking up service and entertainment jobs which were graded as semi-skilled or unskilled. As expected, a large number of males (18%) took up female occupations like beautician, hair dresser, hair stylist, factory worker, telephone operator and receptionist; and female entertainment jobs (8%) like model, dancer, lounge waitress, social escorts and masseuse, and prostitution (24%). Many females took up masculine jobs (37%) like broker, mechanic, driver, machine operator, construction worker, painter, hawker. Some male transsexuals (30%) worked at night mainly in lounges, bars, night clubs and brothels, and some female transsexuals (24%) worked shift duties. A small proportion (9% females and 5% males) took on two jobs to save up for their sex change operation. More males (8%) were unemployed than females (2%). For males, 9% were national servicemen and 5% were students.

### Parents and Siblings

There was no difference in social class and ages of the fathers and mothers at time of birth between the male and female transsexuals. For the male and female transsexuals, the mean ages of their fathers were 39.5 years and 39.9 years respectively, and the mean ages of their mothers were 31.6 years and 31.8 years respectively. The mean number of siblings were also about the same: 5.49 for male transsexuals and 5.10 for female transsexuals. The male transsexuals had more male siblings (mean of 3.15 brothers) compared with the female transsexuals who had a mean of 2.71 brothers ( $P=0.01$ ). There was no significant difference in the number of female siblings (sisters) between the male transsexuals (2.57 sisters) and female transsexuals (2.76 sisters).

### Psychosexual Development (Table II)

The age of onset of transsexuals (the earliest feeling of being a member of the opposite sex) was about the same for both

Table I - General Characteristics: Age, Race, Education, Occupation

	Male Transsex.		Female Transsex.		Significance
	N = 320		N = 130		
AGE	No.	%	No.	%	
14-19	68	21	7	5	
20-24	122	38	65	50	$X^2 = 24.52$
25-29	82	26	42	32	$P < 0.001$
30-34	41	13	9	7	
35-45	7	2	7	5	
RACE					
Chinese	235	73	112	86	
Malay	49	15	11	9	$X^2 = 9.05$
Indian	22	7	3	2	$P < 0.02$
Others	14	4	4	3	
EDUCATION					
Primary	78	24	33	25	$X^2 = 5.67$
Secondary	196	61	67	52	$P > 0.05$
Post-Sec.	46	14	30	23	
OCCUPATION					
Class 2*	10	3	13	10	
Class 3*	68	21	52	40	$X^2 = 37.65$
Class 4*	160	50	56	43	$P < 0.001$
Others**	82	26	9	7	
OCCUPATION TYPE					
Male	7	2	48	37	
Neutral	72	23	66	51	$X^2 = 180.53$
Female	159	50	7	5	$P < 0.001$
Others**	82	26	9	7	

\*Class 2 = lower professions eg teachers, middle managers;  
 \*Class 3 = clerical or skilled;  
 \*Class 4 = semi-skilled and unskilled  
 \*\*Others = include housewife, student, national serviceman

sexes (mean age 8.71 years for males and 8.64 years for females). From their psychosexual development, the transsexuals can be divided into two groups: a larger sexually active (homosexual) group (87%), and a smaller sexually inactive (asexual) group (13%). Among the homosexually active group, the male transsexuals indulged in sexual activities at an earlier age than the female transsexuals. They became infatuated with boys at a mean age of 13.42 years, (14.98 years for female transsexuals), had petting with boys at age 14.74 years (17.32 years for females) and had their first homosexual intercourse at age 16.24 years (17.90 years for females). However, the males cross-dressed at a later age (mean age 17.59 years) than the females (mean age 10.72 years). At time of inception, more females (98%) had cross-dressed in public than males (87%), and 80% of the females cross-dressed completely compared with 72% males.

Table II - Psychosexual Developmental Milestones

Age of Onset		Male Transsex.	Female Transsex.	Significance
Transsexual	Mean Age(Yr)	8.71	8.64	$t = 0.11$
Feeling	Std Dev	6.16	3.90	$P > 0.05$
Infatuation (homosexual)	Mean Age(Yr)	13.42	14.98	$t = 4.08$
	Std Dev	3.50	3.40	$P < 0.001$
Ever infatuated		88%	89%	$X^2 = 0.006$
Never infatuated		12%	11%	NS
First Partner	Mean Age(Yr)	17.49	16.99	$t = 0.74$
	Std Dev	7.09	3.05	NS
Ever had sex partner		83%	92%	$X^2 = 5.33$
Never had sex partner		17%	8%	$P < 0.02$
First Petting	Mean Age(Yr)	14.74	17.32	$t = 6.84$
	Std Dev	3.35	3.47	$P < 0.01$
Ever petted		87%	88%	$X^2 = 0.006$
Never petted		13%	12%	NS
First Sex Intercourse	Mean Age(Yr)	16.24	17.90	$t = 2.27$
	Std Dev	5.70	3.83	$P < 0.02$
Ever had sex intercourse		87%	52%	$X^2 = 61.76$
Never had sex intercourse		13%	48%	$P < 0.001$
First Cross-Dressing	Mean Age(yr)	17.59	10.72	$t = 11.46$
	Std Dev	5.83	5.04	$P < 0.001$
Ever cross-dressed		87%	98%	$X^2 = 2.78$
Never cross-dressed		13%	2%	NS
Cross-dressed completely	Mean(Yr)	19.93	15.04	$t = 6.14$
	Std Dev	7.50	4.65	$P < 0.001$
Ever reached this stage		72%	80%	$X^2 = 2.78$
Never reached this stage		28%	20%	$P > 0.05$

### Sexual Behaviour

The sexual activities practised by the male transsexuals consisted of kissing and heavy petting, oral sex, masturbating their male partners and anal intercourse by their male partners. The most frequent act was anal intercourse, followed by oral sex, and the least frequent was masturbating their partners. All the male transsexuals were passive partners playing the female receptive role. They experienced orgasm in the form of weak erections and ejaculations, which was diminished and stopped after they started to take female hormones. Their frequency of intercourse varied from abstinence to daily with the mean of 5.1 times per month. The sexual activities practised by the female transsexuals were less complicated, consisting of kissing, heavy petting and masturbating their female partners and playing the male role. The frequency of sexual intimacy varied from abstinence to daily with the mean of 4.0 times per month. Some 38% of male transsexuals had a history of male prostitu-

tion. The reasons for prostitution were partly financial and partly the desire to be accepted and treated as a female.

## DISCUSSION

### Family Background

Late maternal age has been found to be associated with deviant behaviour and sexual abnormalities, but they were not associated with transsexualism. Studies on homosexuals showed that they had older parents<sup>(14-17)</sup>. Walinder<sup>(18)</sup> obtained information on paternal ages of 39 out of 47 male transsexuals and his results showed that the mean paternal age of 33.0 years and the mean maternal age was 28.8 years, which were younger than the fathers of Singapore male transsexuals.

Related to parental ages would be the subjects' birth order. Like parental ages, the subjects' birth order appeared to be later for male homosexuals only. Slater<sup>(14)</sup> computed the mean birth order of male homosexuals and found that there was a significant "shift to the right" in birth order and late maternal age. The homosexuals tended to be later born children in the family. Walinder<sup>(18)</sup> obtained information on the birth order of 39 transsexuals and found that they did not differ significantly from that of the controls. He concluded that transsexuals did not differ from the general population in the age of their parents at birth, nor in their ordinal-position within the family. The birth orders of the Singapore male and female transsexuals were not significantly different. This study confirms that late maternal age is not associated with transsexualism.

### Psychosexual Development

#### *Onset of Transsexualism:*

It is difficult to determine what feelings or behaviour must be felt or exhibited to indicate the onset of transsexualism. Most male transsexuals claimed that their desire to be a member of the opposite sex started at an early age. Many Singapore male transsexuals claimed that they played like a girl during early childhood (as early as they could remember). Some said they felt "different" just before puberty (age 12). This early onset has been confirmed in this case reports<sup>(19,20)</sup>. Ball<sup>(21)</sup> in his thirty years experience with transsexuals found that the male transsexuals claimed they suffered dissatisfaction with the male role from early childhood and had a life long attraction towards the female role. Hore et al<sup>(22)</sup> found that 15 of his 16 male transsexuals regarded themselves as of the wrong sex in the primary school age range. The reports from female transsexuals were similar. The Singapore female transsexuals also started having transsexual feeling in early childhood. Some claimed that they started at age three years. Randell<sup>(5)</sup> reported that the age of onset of female transsexuals was always before the tenth year. Pauly<sup>(10)</sup> found 36 (64%) out of 57 female transsexuals claimed that their condition started "as early as I can remember". The ages ranged from 2 to 13 years. Steiner<sup>(23)</sup> who evaluated 41 female transsexuals found that all gave a history of Tomboyism and cross-gender behaviour from an early age, usually preschool, preferring boys as companions and the male role. Sorenson and Hertoft<sup>(24)</sup> reported that all had clear fantasies in early childhood of being boys. Before puberty they associated mostly with boys, whereas after puberty their preferences switched to girls. The results showed that many transsexuals had their onset even before they were sexually matured.

#### *Cross-dressing behaviour:*

Cross-dressing is one of the early signs of transsexualism. The cross-dressing behaviour of the Singaporean male transsexuals started during early childhood when they played mother. This was poorly recollected as few could give details. As they reached school age, most of them stopped cross-dressing because of parental disapproval and the need to conform to the school uniform. The urge to cross-dress continued. When they

grew older they resumed a cross-dressing, initially during the evenings and later throughout the day and night. None of the transsexuals had erotic feelings from their cross-dressing. This cross-dressing pattern has been confirmed by other investigators<sup>(18,25,26)</sup>. Female transsexuals usually cross-dressed from early childhood and continued into adult life (except while attending school), and stopped wearing female clothes when they stopped schooling. None of the transsexuals (male or female) were forced by their parents to cross-dress, although some were allowed to cross-dress more freely than others.

Person and Ovesey<sup>(27)</sup> found a uniform history of childhood cross-dressing which began between the age of three and ten years in ten of his primary male transsexuals. Their "secondary" male transsexuals used cross-dressing to attract sexual male partners. Hore<sup>(22)</sup> in a follow-up study of 16 cases, found that 14 (87%) cross-dressed during childhood. Bentler<sup>(26)</sup> found that cross-dressing was very low below the age five years, and reached about 50% at age 11. The majority lived the life of a woman for some time prior to surgery. Cross-dressing did not cause erotic feelings in transsexuals<sup>(25,26)</sup>. However fetishistic arousal had been reported by Hoernig and Kenna<sup>(28)</sup> as 9,7%, and by Buhrich and McConaghy<sup>(29)</sup> in five out of 29 cases. McFarlane<sup>(30)</sup> in his study of 27 male transsexual prostitutes, found an early history of cross-dressing behaviour: by age 9 years, 30% started to cross-dress and by age 19, 78% cross-dressed privately and 39% cross-dressed publicly. Cross-dressing in female transsexuals started at an earlier age than the males because wearing of males clothes by females is more acceptable. Steiner<sup>(23)</sup> reported a case who refused to put on female clothes from very young age. Pauly<sup>(10)</sup> in her review of 80 cases found that before puberty 90% cross-dressed: 20% occasionally, 54% frequently and 16% consistently. Sorenson and Hertoft<sup>(24)</sup> reported that 7 out of 8 female transsexuals had an urge to cross-dress before puberty and one during adolescence. Like the males, no one recalled having been forced to cross-dress. Randell<sup>(5)</sup> found that only 5 out of 37 cases lived wholly as women, three others assumed a female role whenever this was possible, and eight cross-dressed in public of which four appeared on professional stages. The results show that cross-dressing is not primary, but secondary to an underlying psychosexual inversion ie cross-dressing does not cause or induce transsexualism. Its later manifestation in male compared to female transsexuals is due to parental and social disapproval.

#### *Homosexual behaviour*

The Singapore transsexuals went through a "homosexual" phase before they started to cross-dress and to develop the urge for sex reassignment surgery. Homosexual behaviour were reported in the literature<sup>(6,22)</sup>. Hore et al<sup>(22)</sup> reported that 94% (15 out of 16) were entirely homosexual. Pauly<sup>(9)</sup> found that 53% of 80 cases were overtly homosexual. Sorenson and Hertoft<sup>(24)</sup> in a study of 29 male transsexuals, found that most of the transsexuals felt sexually attracted to men and had little interest in genital sexual activity, but one third had heterosexual experience, mainly occasional relations. Many lacked a sexual life for long periods of time and 17% had never participated in either homosexual or heterosexual coital activity. About 13% of the Singapore male transsexuals were asexual ie never participated in any sexual activity.

Pauly<sup>(10)</sup> in her review of 80 cases of female transsexuals reported in the literature, found that they developed homosexual preference between ages 6 to 22 years (mean age 13.4 years), and had their first sexual contact at 18.2 years. They regarded themselves as masculine and were accepted by female partners as males. In the report of five female transsexuals by Vogt<sup>(31)</sup>, the average age of onset of sexual activity was about 16 to 17 years. Sorenson and Hertoft<sup>(24)</sup> gave a case

report of female transsexual who had her first lesbian relationship at age 14. Unlike Singapore transsexuals, Western transsexuals exhibited both heterosexual and homosexual behaviour. The latter may include heterosexual relationship and marriages to the opposite sex<sup>(5,6,8)</sup>. There are two possible explanations for heterosexual behaviour in Western transsexuals: (1) they indulge in heterosexual practice to overcome their transsexual feelings, or (2) they went through the "homosexual" phase later in life. For female transsexuals, Pauly<sup>(10)</sup> reported that many had also dated males (57% in 47 cases) and (48% in 54) admitted having intercourse with men. The Singapore transsexuals appear to be a different subtype, as almost all of them have a homosexual background. In this study, female homosexuality appears to be an incomplete form of female transsexualism.

#### Prostitution

Among male transsexuals, prostitution was frequently reported<sup>(7,9,30,32)</sup>. Stone<sup>(33)</sup> in his assessment of 60 male transsexuals in Los Angeles County Harbor General Hospital, found that one group "had a long history of arrests and convictions for minor nonviolent crimes especially prostitution". They practised passive homosexuality, were less depressed, and were more manipulative. Prostitution provided a source of income and was also a way of gratifying their craving to be accepted as a female. Prostitution, as expected, is confined only to male transsexuals. In this study, the transsexual prostitutes started to develop transsexualism at an earlier age, but they sought sex reassignment surgery at a later age than the "non-prostitutes". This may imply that their transsexualism may be secondary to their homosexuality, or that their homosexuality developed into transsexualism when they grew older.

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