*British Journal of Psychiatry* (1993), **162**, 681–685



# Sex Reassignment Surgery
## A Study of 141 Dutch Transsexuals

PHILIP SNAITH, MICHAEL J. TARSH and RUSSELL REID

"This is an evaluation of the therapeutic effect of sex reassignment surgery on 36 female-to-male transsexuals and 105 male-to-female transsexuals in the Netherlands. Data were collected by means of structured interviews. The evaluation was made on the basis of subjective data only, that is on what the persons themselves reported on their gender identity, gender role, and physical condition. Allowing for the restrictive methodology of the (*ex post facto*) study, it is concluded that there is no reason to doubt the therapeutic effect of sex reassignment surgery. No specific differences were found between those who were still in medical treatment and those who had completed treatment. The findings obtained in the female-to-male transsexuals compare favourably with those obtained in male-to-female transsexuals. Finally, the conclusion is drawn that more attention ought to be paid to psychosocial guidance in addition to medical guidance."

The summary quoted above is from an article by Kuiper & Cohen-Kettenis (1988). The present authors were invited to comment upon the study.

### Philip Snaith

The cause of transsexualism is a conundrum; indeed, nothing is known for certain about its aetiology. No physical laboratory tests show transsexuals to be consistently different hormonally, chromosomally, or morphologically; no mental tests show any consistent psychodynamic pattern (Money & Gaskin, 1970–71). However the condition exists, it appears to be a life-long disorder, and so far, no treatment has been discovered for it. Most transsexual people experience persisting dysharmony with their gender role, and the pursuit of role reversal is a defining characteristic (World Health Organization, 1992). The publication of a male-to-female reassignment procedure by a Danish medical team (Hamburger *et al*, 1953) led to a surge of interest; this was further encouraged by the publication of *The Transsexual Phenomenon* (Benjamin, 1966), and gender identity clinics were established where religious or other objections did not continue to force the problem to remain in obscurity. The purpose of these clinics was to assess applicants for gender reassignment and to monitor the course of this extraordinary intervention. Such a procedure calls for an extensive audit of the outcome, and over 25 follow-up studies have now been conducted. A useful feature of the present report is a list of some of these studies, and it also provides further assessment of a large series of patients.

Some medical interventions, by their very nature, cannot be conducted by blind procedure; moreover, comparison groups would be quite unrealistic. Gender reassignment is one of these areas, thus professional opinions and practices must be guided by well planned outcome reports. These should be based on the following principles:

(a) there should be adequate information on all patients in a consecutive sample
(b) the assessment should be conducted at a sufficient time-interval to allow the patient to settle into the new gender role
(c) the assessment should be conducted by independent investigators who are experienced in interview techniques and have no connection with the clinical team
(d) the principles on which the assessment is based must be realistic to the condition, that is, outcome should not be judged on the expectation of marked change of personality, social success, or increased earning power in employment.

How well does this study succeed according to these principles? Firstly, (a), the follow-up rate of the cohort was disappointing. There is confusion from including patients who were in the process of reassignment (receiving hormonal therapy but had not yet had surgery), with those who had proceeded through the surgical phase, although, in most instances, the groups were considered separately. The total sample was 141 patients of whom 80 (55 male-to-female and 25 female-to-male) had had the operation; 70 male-to-female and 18 female-to-male patients were excluded from the completing survey for a variety of reasons – most of them refused to take part or could not be traced. Since the majority



https://doi.org/10.1192/bjp.162.5.681 Published online by Cambridge University Press

of the excluded patients must have been through the surgical phase, this leaves information on only about 50% of the 'surgical' group.

On the second principle, (b), the survey was more successful; the interval between completion of surgery and study evaluation was about five years. For those who had not received surgery the interval between start of treatment and study evaluation was about three years, although their mean age was higher than the 'surgical' group.

Thirdly, (c), the assessments were made by the authors and by eight 'specially trained' assistants. That the study was conducted independently of the clinical team was an advantage over other studies.

The criteria for assessment, (d), were realistic in relation to the relief of 'gender dysphoria' (the authors use this term to indicate the distress caused by the perception of incongruence of the biological gender) and general well-being. The assessments were partly based on a broad quality-of-life statement of 'happiness', as well as a satisfaction with the gender role reversal. On this rating of 'happiness' one (4%) of the female-to-male patients, and eight (15%) of the male-to-female patients stated they felt unhappy; since few of the reassigned patients stated that they were dissatisfied with their role reversal or had doubts that they were now in their 'correct' role, the cause for the unhappiness lay elsewhere. The main cause seemed to be a continued sense of isolation.

A major conclusion was that while gender reassignment will probably improve the distress of the incongruent self-perception of gender, it does not solve life's problems. The experience of many, probably most, transsexual people is of loss – of family and other relationships, of work, and of the esteem of others; much of this may long precede the quest for gender reassignment. An interesting observation was that female-to-male patients were generally happier, despite the fact that most had not received a phalloplasty operation. This points to the greater ease with which a woman may assume and be accepted in the role of a man than vice versa. Oestrogenic sex steroidal drugs may have an adverse effect on the emotional state, as well as the physiological condition, of the recipient, and this is an area requiring more research attention in the future.

This survey adds meaningfully to the literature. Future studies should follow this example, and direct more attention to patients' perception of the overall quality of their life, rather than to some unrealistic goals which they never expected to attain. I have no doubt, from long experience in a large gender identity clinic, that gender reassignment should remain an option. But the pitfalls along the path are many and, since the end-state may be worse than the former one, extreme caution is necessary on advice and in monitoring the course of reassignment. The recommended standards of practice (Walker *et al*, 1985) must be carefully followed by practitioners in this area.

**Michael J. Tarsh**

Follow-up studies are a vital form of underpinning all therapeutic procedures. They are, however, even more important than usual for irreversible procedures which may meet with the disapproval of a large part of the population. Such procedures include therapeutic abortion, modified leucotomy, and sex reassignment surgery – particularly that involving male-to-female transsexuals.

In these procedures, it is vital to decide whether or not an operation is effective, whether all or nearly all of the patients are satisfied, and how frequently, if ever, catastrophes take place. If such studies cannot be done, such procedures will be strictly controlled or stopped altogether through the force of public opinion – for example abortion in American and Irish politics and the regulation of leucotomy operations under a Commission in the English Mental Health Act 1983. Another example is the fact that those wanting sex reassignment in England used to have to go to Casablanca for it in the 1970s, while even in 1992 they face long waits and enormous difficulties in having their needs met by the National Health Service.

Follow-up studies from before 1985 were mainly anecdotal: these were over-involved with whether or not the actual surgery was satisfactory, and were less interested in the important details of social adjustment afterwards. They did not use control groups, even where it was possible to do so. Lothstein (1982) found that the procedure had definite limitations, saying that only 75% of results were fully satisfactory. Meyer & Reter (1979) from Johns Hopkins described patients treated between 1971 and 1974: the numbers were small and the unoperated group did as well as those who had operations. However, there are major methodological criticisms to be made of this study, whose publication had a dampening effect on the whole procedure. It is against the background of doubt produced by these two studies that three others, published in 1987 and 1988, are so important. These were from Blanchard & Steiner (1992) in Canada, Mate-Kole *et al* (1990) in London, and Kuiper & Cohen-Kettenis (1988) in Amsterdam. The last study is an encouraging landmark, coming from a small country with pragmatic social attitudes and good facilities for following up fairly stable populations.

https://doi.org/10.1192/bjp.162.5.681 Published online by Cambridge University Press

In the report by Kuiper & Cohen-Kettenis (1988) 36 female-to-male (F-to-M) transsexuals were studied, but 18 did not respond, were uncooperative, or could not be found. There were also 105 male-to-females (M-to-Fs), but in 67 cases, data were not adequate: 65% were happy or very happy with the result, and only 11% unhappy or very unhappy. The two groups did not differ in other respects; 'unhappiness' usually meant loneliness because no new partner had been found, but nearly all were satisfied with their new sex. The F-to-M patients were more satisfied with their behaviour in their new role than the M-to-Fs. Nearly all the F-to-Ms and 80% of the M-to-Fs felt themselves to be well integrated socially, although some of the F-to-Ms felt discriminated against in this respect.

Both groups were assessed at different stages of their transformation on satisfaction with bodily details, and were compared with control groups of students of the same sex. F-to-Ms were divided into three groups according to whether they had hormones only, mastectomy (with or without hysterectomy), and then penoplasty as well. This latter requirement, however, was left out early on because the operations were unsatisfactory.

Male-to-female transsexuals are dissatisfied with a penis and testes, and much more satisfied with a vagina. The M-to-Fs in this study were more dissatisfied with a penis than were male students, and as satisfied with a neovagina as female students. All of those questioned, of both sexes, were in no doubt about the correctness of having had surgery.

There was a significant difference in satisfaction with the care provided between the M-to-Fs, who were 50% satisfied, and the F-to-Ms, who were 80% satisfied. Nobody in the study had committed suicide, but 15 M-to-Fs had made attempts, two-thirds of them complaining of loneliness, depression, and psychosocial problems.

Surprisingly, there was no direct relationship between subjective well-being and the particular phase of therapy: those who were 'on the way' seemed to be no less happy than those who had 'arrived'. It is suggested that positive expectation is good enough in itself to make the patient happy – which seems reasonable. Those who have 'arrived' have often had to face difficulties in losing partners, families, and children, so their adjustment would be expected to take a long time. The authors emphasise that physical transformation alone does not necessarily bring complete happiness, and that psychosocial follow-up is important.

The authors suggest that the reason F-to-Ms have less difficulty adjusting than M-to-Fs is probably because society tolerates them better; this is because they are less recognisable as belonging to their former sex, therefore less likely to be afraid of discovery, and are on average nine years younger than the M-to-F group with less to lose in terms of the responsibilities and burdens of their past life.

How relevant is this to the average gender identity clinic elsewhere? On the whole, the F-to-Ms do not cause too much difficulty: mastectomy and (if needed as well as male hormones) hysterectomy are operations which many surgeons can perform and against which there is no taboo. Women do not seem to have much trouble in living a masculine life, although phalloplasty remains experimental and unsatisfactory. However, if there was an effective operation to allow F-to-Ms to pass urine in a standing position, the demand for it could result in problems of resources.

The M-to-F group is much larger and more vocal. Surgical treatment is either hard to obtain or expensive, or both, and prior apprenticeship to femininity has to be carefully conducted and monitored. Psychopathic and alcoholic people have to be excluded, and societal disapproval is likely if these matters are not carried out with great care. Nevertheless, most patients who are carefully selected seem satisfied, as the authors suggest. The question of psychosocial follow-up seems somewhat unrealistic when patients regularly say that all they want is surgical intervention, and that once it is over they will be 'normal', not emotionally disturbed, and not in need of psychiatrists. Where follow-up is offered, it is either refused or else default is frequent. It does not seem possible to make contracts for some year's follow-up to be an obligatory requirement for the agreement to undertake treatment. This is particularly the case when so many patients have to travel so far to distant centres, rather than treatment being available regionally.

This paper, then, is broadly encouraging, although longer follow-up studies are needed, as well as data on relationships with new partners and on how long newly found employment patterns can be kept up. Further research is also needed on the children of transsexuals, and in particular on whether it is necessary in the interests of the children for relationships with parents who change sex to be often and cruelly cut short.

**Russell Reid**

Persons suffering from gender dysphoria and who have a fixation on changing sex – more accurately changing gender roles – have, since the 1950s, been classified 'transsexual'. Before this, and before the

https://doi.org/10.1192/bjp.162.5.681 Published online by Cambridge University Press

advent of synthetic hormones and modern surgical techniques, they were all regarded as transvestites, or persons who cross-dressed.

Kuiper & Cohen-Kettenis' paper on the outcome of sex reassignment surgery on 141 Dutch transsexuals (105 M-to-F and 36 F-to-M) provides evidence of a predominantly successful adjustment for most of the transsexuals who are rehabilitated into their new role. The purpose was to measure the outcome of sex reassignment surgery on the basis of gender dysphoria, the hypothesis being that a successful outcome of sex reassignment surgery resulted in a reduction, elimination, or resolution of the gender dysphoria. The focus was mainly on subjective well-being – 'the feel good factor'.

The data were collected on the basis of an interview, usually in the subject's home, following the completion of a multiple-choice questionnaire. Also a "body-image scale" was completed and provided information concerning satisfaction with their own body.

Both M-to-F and F-to-M transsexuals were studied at various stages of hormone treatment and surgical procedures including castration, sex reassignment surgery, mastectomy, hysterectomy, and oophorectomy. The average age of the F-to-Ms was 28 to 29 years, and of the M-to-Fs was 36 to 37 years. The interval between starting treatment and being evaluated for the study varied from 2.5 to 5 years.

Subjective well-being was positively correlated with improved psychosocial functioning, having a steady partner, and having completed sex reassignment surgery. Other variables enquired about were:

(a) employment
(b) acceptance by family
(c) partnership
(d) sense of loneliness
(e) satisfaction with relations in general
(f) gender role behaviour
(g) integration of new gender role in day to day life
(h) certainty about one's own gender identity
(i) suicide attempts.

Not surprisingly, most of the subjects in the study reported feeling happy that they had made the decision to seek treatment. Those who reported continued dysphoric feelings no longer ascribed them to gender problems. The question is raised that such self-reported happiness may have been distorted by wishful thinking, and the expectation that treatment would abolish previously experienced gender dysphoria, and thus lead to happiness, may have positively coloured the answers.

The paper concludes that transsexuals do need frequent psychosocial aid and support during the process of reassignment. They need help coming to terms with situations of painful loss including jobs, families, partners, children, and friends. Many are forced to move away from their familiar environment and, despite being confident of both their new gender role and their ability to function socially, social adaptation and acceptance by others are not always easy. Discrimination, social isolation, and loneliness are experienced and understandably sap the emotional strength of the person which, in this context, frequently results in suicide attempts (1 in 7 M-to-Fs and 1 in 36 F-to-Ms). Actual suicides are much less frequent. According to the Netherlands Centre Gender Foundation, 3 M-to-Fs, and not a single F-to-M, have committed suicide after starting therapy in the last ten years. Unfortunately, the total number of transsexuals treated during this time is not provided. In the present study, none of the subjects regretted the decision to undergo sex reassignment surgery.

In summary, sex reassignment treatment for transsexuals is a process of active rehabilitation into the new gender role, the provision and monitoring of opposite-sex hormones, and after a reasonable period of successful cross-gender living, sex reassignment surgery is performed. According to the present study, the majority of transsexuals do experience a successful outcome in terms of subjective well-being and personal happiness: there is no evidence that active intervention is making them worse. Although more information on the economics for this condition is needed, my impression is that successfully treated transsexuals are mostly self-supporting and are not a drain on society compared with untreated, unhappy people with unresolved gender dysphoria.

## References


BENJAMIN, H. (1966) *The Transsexual Phenomenon*. New York: Julian Press.

BLANCHARD, R. & STEINER, B. W. (1992) *Clinical Management of Gender Identity Disorders in Children and Adults*. Washington, DC: American Psychiatric Press.

HAMBURGER, C., STURUP, G. K. & DAHL-IVERSON, E. (1953) Transvestism. Hormonal, psychiatric and surgical treatment. *Journal of the American Medical Association*, **152**, 291–296.

KUIPER, B. & COHEN-KETTENIS, P. (1988) Sex reassignment surgery: a study of 141 Dutch transsexuals. *Archives of Sexual Behaviour*, **17**, 439–457.

LOTHSTEIN, L. M. (1982) Sex reassignment surgery: historical, bioethical and theoretical issues. *American Journal of Psychiatry*, **139**, 417–426.

MATE-KOLE, C., FRESCHI, M. & ROBIN, A. (1990) A controlled study of psychological and social change after surgical gender reassignment in selected male transsexuals. *British Journal of Psychiatry*, **157**, 261–264.


https://doi.org/10.1192/bjp.162.5.681 Published online by Cambridge University Press

MEYER, J. K. & RETER, D. J. (1979) Sex reassignment – follow-up. *Archives of General Psychiatry*, **36**, 1010–1015.

MONEY, J. & GASKIN, R. (1970–1971) Sex reassignment. *International Journal of Psychiatry*, **9**, 249–269.

WALKER, P. A., BERGER, J. C., GREEN, R., *et al* (1985) Standards of care: the hormonal and sex reassignment of gender dysphoric persons. *Archives of Sexual Behaviour*, **14**, 79–90.

WORLD HEALTH ORGANIZATION (1992) *The ICD–10 Classification of Mental And Behavioural Disorders*. Geneva: WHO.

Philip Snaith, MD, FRCPsych, *Senior Lecturer in Psychiatry, Department of Psychiatry, Clinical Sciences Building, St James's University Hospital, Leeds LS9 7TF*; Michael J. Tarsh, MA(Oxon), DM, FRCPsych, *10 Harley Street, London W1N 1AA*; Russell W. Reid, MB, ChB, MRCPsych, *Consultant Psychiatrist, Hillingdon Hospital, Uxbridge, Middlesex UB8 3NN*

https://doi.org/10.1192/bjp.162.5.681 Published online by Cambridge University Press