Effects of Different Steps in Gender Reassignment Therapy on Psychopathology: A Prospective Study of Persons with a Gender Identity Disorder

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DOI: 10.1111/jsm.12363

ABSTRACT

Introduction. At the start of gender reassignment therapy, persons with a gender identity disorder (GID) may deal with various forms of psychopathology. Until now, a limited number of publications focus on the effect of the different phases of treatment on this comorbidity and other psychosocial factors.

Aims. The aim of this study was to investigate how gender reassignment therapy affects psychopathology and other psychosocial factors.

Methods. This is a prospective study that assessed 57 individuals with GID by using the Symptom Checklist-90 (SCL-90) at three different points of time: at presentation, after the start of hormonal treatment, and after sex reassignment surgery (SRS). Questionnaires on psychosocial variables were used to evaluate the evolution between the presentation and the postoperative period. The data were statistically analyzed by using SPSS 19.0, with significance levels set at $P < 0.05$.

Main Outcome Measures. The psychopathological parameters include overall psychoneurotic distress, anxiety, agoraphobia, depression, somatization, paranoid ideation/psychoticism, interpersonal sensitivity, hostility, and sleeping problems. The psychosocial parameters consist of relationship, living situation, employment, sexual contacts, social contacts, substance abuse, and suicide attempt.

Results. A difference in SCL-90 overall psychoneurotic distress was observed at the different points of assessments ($P = 0.003$), with the most prominent decrease occurring after the initiation of hormone therapy ($P < 0.001$). Significant decreases were found in the subscales such as anxiety, depression, interpersonal sensitivity, and hostility. Furthermore, the SCL-90 scores resembled those of a general population after hormone therapy was initiated. Analysis of the psychosocial variables showed no significant differences between pre- and postoperative assessments.

Conclusions. A marked reduction in psychopathology occurs during the process of sex reassignment therapy, especially after the initiation of hormone therapy. **Heylens G, Verroken C, De Cock S, T'Sjoen G, and De Cuypere G. Reassignment therapy on psychopathology: A prospective study of persons with a gender identity disorder. J Sex Med 2014;11:119–126.**

Key Words. Gender Reassignment Therapy; Psychopathology; Gender Identity Disorder; Gender Dysphoria

Introduction

According to the DSM-IV-R classification, transsexualism or gender identity disorder (GID) is an extreme form of gender dysphoria characterized by a strong and persistent identification with the opposite sex. It is accompanied by the wish to get rid of one's own primary and secondary sex characteristics and to live completely as someone from the opposite sex [1]. In Belgium, the prevalence is around 7.75 male-to-female (MtF) and 2.96 female-to-male (FtM) per 100,000, which is similar to other Western European countries [2].

The etiology of transsexualism remains unclear. Besides biological factors, such as hormonal

abnormalities, morphology of sexual dimorphic brain nuclei, and genetic elements [3–8], psychological and sociocultural factors also seem to be important [3,4].

As far as the therapy for GID is concerned, most countries adopt the standards of care from the World Professional Association for Transgender Health. These standards comprise a variety of therapeutic options, including changes in gender expression and role, hormone therapy, surgery, and psychotherapy. The number and type of interventions applied, and the order in which these take place, may differ from person to person [9]. Most of the persons with GID who attend our clinic wish full sex reassignment including genital surgery, and start with hormonal treatment.

Previous research on the relationship between GID and psychiatric comorbidity has led to divergent conclusions. Some studies suggest that GID is frequently associated with severe psychiatric comorbidity, both on axis 1 and 2, from psychoses and major affective disorders [10,11] to severe personality disorders [12,13]. Others show little or no raised levels of psychopathology in transsexual populations [14–16]. A moderate view is that persons with GID may show more psychopathology, yet no severe neurotic or psychotic disorders [17,18]. Of the various symptoms, depression, anxiety disorders, and adjustment disorders are the most common, followed by substance abuse, suicide, and automutilation [1,17–19]. Due to the incongruence between biological sex and gender identity, many persons with GID also have a disturbed body image, which makes them frequently insecure [20]. These findings imply the existence of a link between gender dysphoria and psychiatric disorders, but do not reveal any information about causality.

In the past decades, various studies have been performed to investigate the effects of sex reassignment therapy on psychological status and psychosocial aspects. In the early years, the number of patients was often small and most of the studies did not employ standardized outcome instruments. In 1990, Green and Fleming reviewed the preceding literature and found out that sex reassignment was effective in reducing gender dysphoria and general well-being [21]. In particular, they emphasized the importance of standardized selection criteria for surgery and the use of standardized instruments for outcome measurement. Green and Fleming's conclusions were reaffirmed by Pfafflin and Junge in their review of approximately 70 outcome studies published between 1961 and 1991 [22].

More recently, Smith et al. prospectively studied the outcomes of sex reassignment and concluded that treatment had a positive effect on gender dysphoria, psychological and social well-being, and sexual satisfaction [23]. Similar results were found in the follow-up study by De Cuypere et al., who especially focused not only on sexuality but also on general health and satisfaction with surgical results [24]. Gomez-Gil et al. [25] showed that persons with GID under hormone therapy scored significantly lower on several Minnesota Multiphasic Personality Inventory scales than patients who had not started hormone treatment yet. Contrary to these results, Haraldsen and Dahl, however, could not find any significant difference when comparing Symptom Checklist-90 (SCL-90) scores in pre- and postoperative patients [26]. Murad et al. [27] and Gys and Brewaeys [28] offered, respectively, comprehensive reviews of studies between 1966 and 2008 and after 1990, and emphasized again the lack of standardization. The American Psychiatric Association Task Force on treatment of GID uses their evidence coding system to evaluate studies concerned with treatment issues: most evidence is on at or below level C (cohort or longitudinal study) (refer to Byne et al. for further reading) [29]. The only controlled study on the effectiveness of sex reassignment surgery (SRS) was conducted by Mate-Kole et al. who compared a waiting list condition with a treatment condition and found better results in the postoperative groups, with the group reporting more social and sexual activity, better employment rates, and lower levels of psychoneurotic pathology indicated by Crown-Crisp Experiential Index scores [30]. Another study from Mate-Kole et al. compared GID patient groups before treatment, during hormone therapy and after SRS and showed that a bigger improvement occurs after SRS than after changing the gender role [31]. This suggests that the effect of sex reassignment on psychological status varies in different phases of the process.

The gender identity clinic of the Ghent University Hospital, Belgium, has evaluated and treated persons with GID since 1985. In the past decade, the number of applicants seeking treatment has increased from 35 to 85 per year in 2012. Eighty-five percent of the applicants come from Flanders, the Dutch speaking part of Belgium. The remaining 15% lives in the French-speaking part. Our clinic has an unique position in Belgium as it offers the full range of diagnostic evaluation and psychotherapeutic support, hormonal