

# Gender-affirming model still based on 2014 faulty Dutch study

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The 2014 article with the title “Young Adult Psychological Outcome After Puberty Suppression and Gender Reassignment” by de Vries, McGuire, Steensma, Wagenaar, Doreleijers and Cohen-Kettenis is the sole positive evaluation of the gender-affirming model to cure gender dysphoria in minors and restore their well-being at the end of the “sex-change” treatment<sup>1</sup>. This contribution takes a better look at the article’s methodology, reversing its apparent “good results”. I wish to thank Hacsí Horváth for his suggestions, expanding my original critical considerations.

“Gender dysphoria” currently appears as a diagnosis for children and adolescents in the DSM-V(APA 2013)<sup>2</sup>. Instructions to diagnose someone with “gender dysphoria” insist on unease with one’s assigned gender. “Gender” is defined in sociology as the differentiated behaviour culturally transmitted and required from males and females<sup>3</sup>. This meaning is never openly contested by the medical literature, but – under the influence of postmodern philosophy – the term “gender” is often misused as synonym of “sex” (e.g. “gender-reassignment surgery”), creating confusion: the DSM-V allows to diagnose with gender dysphoria persons without problems in subjectively acknowledging their sex<sup>4</sup>.

“Gender dysphoria” is therefore a new condition that seemingly has little to do with transsexuality, the desire to change one’s sex<sup>5</sup>. The diagnosis of “gender dysphoria” can be made just by checking a list of behaviours that are judged inappropriate by gender norms. The *only* necessary requirement is about gender. This is the formulation for children: “A1. A strong desire to be of the other gender or an insistence that one is the other gender (or some alternative gender different from one’s assigned gender)”. For adolescents and adults only

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<sup>1</sup> Sometimes also Costa et al. 2015 is quoted, just on the psychological functioning of gender-dysphoric minors after puberty blockers, but this study has no credibility either (Biggs 2019).

<sup>2</sup> In 2019 the WHO has changed the label to “gender incongruence”, in order not to classify dysphoria as a mental disturbance anymore.

<sup>3</sup> I devoted a booklet to the question of “Sex and gender”: *Sesso e genere*, Trieste: Asterios 2019.

<sup>4</sup> In this kind of literature the expression “sex assigned at birth” is often found, though it does not make sense for the 99% of us who are not intersex (estimates reported by ISNA: <https://isna.org/faq/frequency/> )

<sup>5</sup> The same can be said for its predecessor “Gender identity disorder”, similarly described in the DSM-III and IV since 1980.

the wording is different. The two items indicating discomfort with one's sex are not obligatory to check: "A7. A strong dislike of one's sexual anatomy; A8. A strong desire for the primary and/or secondary sex characteristics that match one's experienced gender". Again for adolescents and adults only the wording is different.

The DSM does require psychological suffering (Criterion B) in order to attribute this diagnosis. But it does not consider the items in A as the *cause* of the mental and social problems described for all ages: "B. The condition is *associated* with clinically significant distress or impairment in social, school, or other important areas of functioning" (my italics). This "association" must have lasted for six months.

Since the late '90es a medical treatment for minors affected by "gender dysphoria" has been developed by the Centre of Expertise on Gender Dysphoria at the VU University Medical Centre in Amsterdam: the gender-affirming model (Cohen-Kettenis, Steensma and de Vries 2011). The first stage of the treatment consists of blocking puberty in 12/13-years old (stage Tanner 2), while socially making them members of the opposite sex. The second stage entails nonreversible body re-morphing with hormones of the other sex (legal for 16-years old). The "final third stage" is sex-reassignment surgery, requiring the age of consent. In reality the third stage is not final, as the subject will have to assume artificial hormones all life long. Mental health support is also provided. The model is geared to the result of having transpeople more satisfied about their transition, since the earlier they start, the best they fit with the physical appearance of the other sex – though this might not be equally valid for transmen and transwomen.

The only study claiming good results for the gender-affirming model against gender dysphoria and for the general well being of the subject, is the research done in Amsterdam on the group of the first 70 eligible candidates who received puberty suppressors between 2000 and 2008 (de Vries *et al.* 2011, and especially de Vries *et al.* 2014). The 2014 article was and still is, in the authors' words, the "first longer-term longitudinal evaluation of the effectiveness of this approach" (de Vries *et al.* 2014, 696). On its favourable results rest the

current Endocrine Society's "evidence-based guidelines" (Hembree *et al.* 2017)<sup>6</sup>. The guidelines also quote a NHS document as favourable evidence (NHS 2016), but its only source is again the 2014 study. The 2014 article is quoted in other guidelines and research reviews by "gender specialists" (Lopez *et al.* 2017, Telfer *et al.* 2018, Turban and Ehrensaft 2018) and also by critics (Heneghan and Jefferson 2019) in the same favourable terms that appear in its abstract: "After gender reassignment, in young adulthood, the GD [gender dysphoria] was alleviated and psychological functioning had steadily improved. Well-being was similar to or better than same-age young adults from the general population. Improvements in psychological functioning were positively correlated with postsurgical subjective well-being" (de Vries *et al.* 2014, 696).

Reading the original source and its methodology reveals very different results.

### **The first cohort cured with the gender-affirming approach**

The article "Young Adult Psychological Outcome After Puberty Suppression and Gender Reassignment" (de Vries *et al.* 2014) presents a follow-up of the evaluation of the first two stages of the model (de Vries *et al.* 2011). Results in the group of the 70 "transgender minors" were found good enough to proceed with the third stage of genital surgery. All the minors on puberty blockers proceeded with the transition, despite the frequently heard motivation of suppressing puberty just in order to give the young person more time to think. In the 2011 study it was found that: "Behavioral and emotional problems and depressive symptoms decreased, while general functioning improved significantly during puberty suppression. Feelings of anxiety and anger did not change between T0 and T1" (de Vries *et al.* 2011, 2276); "We demonstrated improvement in several domains of psychological

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<sup>6</sup> That, incidentally, are not considered "evidence-based" by the Canadian patients' organization ECRI: "ECRI provides a "Trust Score card" that rates the quality of the guidelines, based on evidence strength and the measures taken to reduce bias in the recommendations. After searching the ECRI database for transgender care guidelines, the only guideline posted was the 'Endocrine Society Clinical Practice Guidelines of Gender-Dysphoric/Gender-Incongruent Persons, 2017'. It was not given a Trust Scorecard rating. The WPATH SOC was not included in the database" (LisaMacRichards 2019), meaning that these two documents are not evidence-based. The article also exposes the conflict of interest of proponents of the gender-affirming model.

functioning after, on average, 2 years of puberty suppression while GD remained unchanged” (de Vries *et al.* 2014, 697).

In these articles there are no “patients”, but rather “transgender adolescents” diagnosed with “gender dysphoria” (not strictly using the DSM-V<sup>7</sup>) or “eligible candidates” for the puberty suppressors, because of a diagnosis of “gender identity disorder” and “no psychosocial problems interfering with assessment or treatment” (de Vries *et al.* 2014, 697).

The group of 70 “transgender adolescents” target of the 2014 study is therefore not a sample, but rather the universe of the eligible candidates in the 8 years since the model was first applied. They were tested rather shortly (one year) after their sex-reassignment surgery: “The young adults were invited between 2008 and 2012, when they were at least 1 year past their GRS [gender-reassignment surgery] (vaginoplasty for transwomen, mastectomy and hysterectomy with ovariectomy for transmen; many transmen chose not to undergo a phalloplasty or were on a long waiting list)” (de Vries *et al.* 2014, 697). This research design could have been what statisticians call “a longitudinal panel” with the 2011 research, but since questions were substantially different in the two studies, the design is only similar to a panel.

Reduction in cohort size was from 70 to 55 subjects (21,4%), bigger than the 20% considered acceptable in longitudinal panels. But the cohort is further reduced, even more than halved, in the response rate to the different questionnaires, without any explanation or even mention from the authors for these further falls, which are tucked away in the small prints of the tables.

Only 45 subjects were assessed for body image, thus the drop-out rate became 36% (de Vries *et al.* 2014, 699, Table 2). The Utrecht Gender Dysphoria Scale was administered to only 33 subjects, less than the half the cohort (47% of the cases), and only one year after surgery. Concluding that gender dysphoria was resolved by the gender-affirmative model does not seem that sound. Ten measures of psychological functioning are shown in detail in

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<sup>7</sup> “Transgender adolescents experience an incongruence between their assigned gender and their experienced gender and may meet the Diagnostic and Statistical Manual of Mental Disorders 5 criteria for gender dysphoria (GD)” (de Vries *et al.* 2014, 697). So it shouldn't be about their sex.

Table 3 (de Vries *et al.* 2014, 700), with an unexplicated drop in participation from 55 to 32 subjects in 4 measures, and to 43 subjects in 3: on these measures the drop-out rate ranges from 38% to 54%. The only measures taken on 55 (sometimes 54) subjects are Subjective Well-Being: Quality of Life, Satisfaction With Life, and Subjective Happiness, where they score indistinguishably from the larger population.

These fall rates alone should have a destroying effect on the allegedly positive results. But if we look at the reasons for the fall from 70 to 55 subjects, there is more.

### **Arbitrary exclusions and unexplicated refusals/withdrawals/outdropping**

A detailed list of reasons for the reduction from 70 to 55 is given by the authors: “Nonparticipation (n = 15, 11 transwomen and 4 transmen) was attributable to not being 1 year postsurgical yet (n = 6), refusal (n = 2), failure to return questionnaires (n = 2), being medically not eligible (eg, uncontrolled diabetes, morbid obesity) for surgery (n = 3), dropping out of care (n = 1), and 1 transfemale died after her vaginoplasty owing to a postsurgical necrotizing fasciitis” (de Vries *et al.* 2014, 697) – this last tragic outcome will be examined in more details later.

The first reason seems bizarre and rather *ad hoc*. There is no discernible justification to pose a threshold at (only) one year after surgery. The period for the evaluation of life-changing medical events is definitively too limited, also considering that the full maturity of the human brain happens with 25 years of age, that the subject have mostly reached to date. Detransitioners describe a “honeymoon” period of 1-3 years when they were very happy about what they came to deeply regret, only shortly later. The arbitrary time-constraint left out 6 subjects: why could the data-gathering not wait until the biggest group excluded could complete even the arbitrary required year after genital surgery? Why has there been no update of the results?

The second biggest group is composed by the 5 people who either refused (n = 2), or failed to return the questionnaire (n = 2), or dropped out of care (n = 1). What were the

reasons behind refusal and withdrawal? And the subject “dropped out of care” could have done so in order to proceed to detransition?

The third group had medical reasons for not being eligible for surgery (n = 3), and the authors give “uncontrolled diabetes and morbid obesity” just as examples of these reasons. Did the subjects develop these serious conditions after the first two stages of the model? If instead they had them before, how come that young persons with such dangerous health problems were given hormones that further unbalanced their bodies? Can these conditions mean other body-image problems underlying gender dysphoria, that cannot be solved with a sex change?

So, leaving apart the question of the scarce representativeness of the subjects examined in relation to the whole cohort, the arbitrary exclusion of 6 subjects point to the possibility of some doctoring of the results, while the 8 subjects who did not want to or could not take part point to the possibility of unrecorded dissatisfaction. The authors themselves write that: “despite the absence of pretreatment differences on measured indicators, a selection bias could exist between adolescents of the original cohort that participated in this study compared with nonparticipants” (de Vries *et al.* 2014, 703).

Their research question: “After gender reassignment, how satisfied are young adults with their treatment and how do they evaluate their objective and subjective well-being?” (de Vries *et al.* 2014, 697) can definitively not be answered in the positive, especially excluding from this “successful” study the case of death (discussed below) related to the gender-affirming model.

In a recent review of primary studies, researchers examined the hormonal treatment of transgender adolescents and assessed their psychosocial, cognitive, and/or physical effects, including both the 2011 and 2014 Dutch studies (Chew *et al.* 2018). The review also points to the lack of validation of the gender-affirming model: “puberty suppressors (GnRHa, gonadotropin-releasing hormone analog) treatment was associated with improvement across multiple measures of psychological functioning but not gender dysphoria itself, whereas the psychosocial effects of gender-affirming hormones in transgender youth have not yet been

adequately assessed. Low-quality evidence suggests that hormonal treatments for transgender adolescents can achieve their intended physical effects, but evidence regarding their psychosocial and cognitive impact are generally lacking. Future research to address these knowledge gaps and improve understanding of the long-term effects of these treatments is required” (Chew *et al.* 2018).

As criticism towards the gender-affirming approach rises (see the accusations to the Tavistock clinic in London to transing gay and lesbian minors, and the reintegration of Ken Zucker, falsely accused of “conversion therapy” for non applying the gender-affirming model on all youth knocking at his door), a “do-no-(physical)-harm” approach seems to be the wisest.

### **Death in the cohort**

“One transfemale died after her vaginoplasty owing to a postsurgical necrotizing fasciitis” (de Vries *et al.* 2014, 697). Being a scientific article, the outcome of death following surgery, performed by or on indication of the team, can surely be recorded in such an impassive way. But was it correct to exclude this subject from the research, calling a death “nonparticipation”? The cause of death of the adolescent transwoman is an integral part of the model under evaluation, as the sex-reassignment surgery *must* happen at the third stage. Death occurred as a consequence of the model, therefore the last subject did not fall out of the sample at all. Death is a possible outcome of the gender-affirming model.

Admittedly it is a very rare occurrence, though the genital surgery does have a fairly high rate of nonlethal complications. According to an expert opinion, necrotizing fasciitis is due to an infectious disease, often methicillin-resistant *Staphylococcus aureus*. The infection might come from poor hygiene in post-surgical dilation of the neovagina, required every day for many years. Death would likely not occur in someone who was keeping clean and adhering well to instructions, but some depressed subject do not perform it.

Although rare, death did occur in the cohort, so the question of assessing general well-being becomes one of ascertaining the probability of positive versus very negative

outcomes. True results at the third stage are a 1/56 probability of death, and 55/56 probability to be (in the mean) in better psychological health and free from “gender dysphoria” according to the claimed results on the reduced cohort (without piling on the further reductions).

How to rate the well-being of a dead person should not be a major qualitative problem. He or she is not quite well anymore, as we are debating science, not religion. Death can be considered as a proxy for extreme dissatisfaction with the affirmative model performed for curing gender dysphoria in puberty. How exactly to measure death on the scale of psychological well-being might be a quantitative problem, admittedly. Were I to give a measure for dissatisfaction and not-well-being, I would put the number at infinite, thus cancelling out whatever progress the other 55 (minus the unexplicated further drops) subjects made on the measured variables.

Had the authors fully examined their proper cohort, consisting of 56 subjects, they should have commented on the probability of death from their gender-affirming model. A 1.8% probability of post-op death compares rather well with the high risk of suicide touted by the proponents of the gender-affirming model with studies that have also been exposed to be methodologically unreliable, overestimating the possibility of suicide (Horváth 2018). If we consider the risk contingent only to vaginoplasty, the risk for transwomen rises to 1/23, that is 4.3%.

What to do of the Dutch model, then? As the subjects were come of age at the time of their genital surgery, defenders could argue that we just let youth decide whether to enter in the third stage with its fatal risks. But the model does not start when we consider someone an adult: minors are led to the third stage building up on medical interventions starting at the beginning of puberty. Minors cannot consent to such possible dangerous outcomes. Invalidation of the model by the high risk of death means that the first stage should be suppressed, as it not possible to delay it until coming of age, and the second stage should be delayed.



Results of better psychological well-being as a consequence of treatment in a group where a death has occurred following treatment cannot be valid. Studies and guidelines quoting the favourable outcomes of the gender-affirming model from the Dutch study are therefore wrong and in need of revision, including the Guidelines of the Endocrine Society. More in general, the “gender dysphoria” diagnosis in minors has allowed for the gender-affirming model to intervene on physical sex to align children and adolescents’ bodies with their “gender identity”, affirming “gender” at the expense of sex. In fact, the model does exactly what it promises.

### **Language tricks and their material and symbolic outcomes**

A closer look at the first Dutch study also reveals that its favourable results come from wrongly used or manipulative language. The abstract reads: “Gender dysphoria and body satisfaction did not change between T0 and T1”. So it seems surprising that, two lines down, the conclusion instead recites: “Puberty suppression may be considered a valuable contribution in the clinical management of gender dysphoria in adolescents” (p. 2276). But read carefully: “clinical management” does not mean therapy. I take the liberty to paraphrase the conclusion: offering puberty suppression is useful for getting adolescents who have a problem with their assigned gender to become patients of our clinic and get the drugs we hand out.

When the Dutch team calls the operation that they perform as a part of the gender affirming model, “gender-reassignment” surgery, they are wrongly using the concept of “gender”. So even “gender specialists” appear to be confused about the supposed object of their activity. In their review, Turban and Ehrensaft (2018) list 13 definitions of key terms, from “Sex assigned at birth” to “Gender diverse”, including a sociologically correct definition of “Gender roles”: “A characteristic that is considered ‘male’ or ‘female’ by a particular culture”. But they never offer a definition of “gender” itself – so they can use it as synonymous of “sex”.

Postmodernists have argued that sex does not exist in itself, all is gender. Nevertheless, the medical interventions for “gender dysphoria” are aimed at the minors’ physical sex. This is the original sin of all this literature and all these interventions: if “gender” substitutes “sex”, the body is excluded, and all that is left are the socially organized norms and perceptions of what is appropriate to one sex or to the other. The effort of the gender-affirming model is the opposite of changing gender norms and making them less oppressive. It aims instead at changing the sex of “eligible candidates”, who suffer from societal nonacceptance of deviance in the field of gender.

Children get from adults how to get from discomfort and social problems with their gender to the idea of a resolutive “change of sex”. The “child-led” approach of the gender-affirmative model (Ehrensaft 2011) is a delusion: children do not know by themselves what artificial hormones and surgery can and cannot do, for example that they cannot really change one’s sex but only give cosmetic corrections.

As noted, the subjects of the gender-affirming model are not “patients”: in the 2011 article they are called “eligible candidates”, and in the 2014 article “transgender adolescents”. The last expression is not even a diagnosis, though authors also call them “adolescents who have gender dysphoria”. A “transgender” should not be a “patient” at all, as it is simply someone who does not fit with the social prescriptions for his or her sex, while nothing might be wrong with their perception of their own sex (also according to the DSM): what are these people doing in medical settings, getting drugs paid by the public or by insurances to alter their bodies?

On this sand the positive review of studies has been built. I am pretty sure that the actual discussion in WPATH for the preparation of their 8th Standard of care is now using the same building blocks.

A host of problems is therefore revealed not only with the Dutch studies, but also upstream at the peer-reviewing level, and downstream at the quotation level, in all the articles of authors that have impassively read the studies quoting their good results (which is not necessarily done in following steps), and even in official guidelines by a medical society.

The authors of the studies themselves never acknowledged these methodological problems.

Let us hope they will do it from now on.

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