How Frequently Does Transsexualism Occur?

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Abstract

In this investigative report we calculate an approximate value of the lower bound of the prevalence of male-to-female (MtF) transsexualism in the United States, based on estimates of the numbers of sex reassignment surgeries performed on U.S. residents during the past four decades. We find that the prevalence of SRS is at least on the order of 1:2500, and may be twice that value. We thus find that the intrinsic prevalence of MtF transsexualism must be on the order of ~1:500 and may be even larger than that. We show that these results are consistent with studies of TS prevalence emerging in recent studies in other countries. Our results stand is sharp contrast to the value of prevalence (1:30,000) so oft-quoted by "expert authorities" in the U.S. psychiatric community to whom the media turns for such information. We ponder why that community might persist in quoting values of prevalence that are roughly two full orders-of-magnitude (a factor of ~100) too small. Finally, we discuss the challenge that our much larger and more realistic numbers present to the medical community, public health community, social welfare community and government bureaucracies.

Introduction

There are many reasons for wanting to know the approximate prevalence of a developmental or medical condition. One important reason is that the prevalence of a condition determines the attention it receives by medical researchers, physicians, public health officials, social welfare workers and government bureaucrats. If a condition is presumed "extremely rare", then it gets very little attention at all. If is it known to be not uncommon, and if it has a very high impact on those affected (such as conditions like multiple sclerosis or deafness), then it gets taken much more seriously and more medical and social resources are applied to its correction.

In this article, we'll show that it is fairly easy to calculate approximate values of the prevalence of male-to-female (MtF) transsexualism. We first estimate the number of postop women in the U.S by accumulating the estimated numbers of sex reassignment surgeries (SRS) performed on U.S. citizens and residents decade by decade. We then

divide that number by the number of adult males in the country. The result is a rough lower bound on postop prevalence, which we find to be about 1:2500. In other words, at least one or more in every 2500 adult males in the U.S. has had SRS and become a postop woman. The prevalence of untreated intense MtF transsexualism must be many times that number, and is perhaps on the order of 1:500.

When we compare this value with the one often quoted by "psychiatric authorities" in the U.S. (1:30,000), we discover that those authorities have persistently understated the prevalence of transsexualism by almost two orders of magnitude. This is such a incredible discrepancy that we must raise questions about why the psychiatric establishment (which has largely seized control of information provided about transsexualism to the media in the U.S.) has been so persistent in promulgating vastly understated values of the prevalence.

As we'll see, you do not need to be a scientist or psychiatrist to perform these prevalence calculations or to understand them. Any reputable journalist could come up with the same analysis. Any informed reader can study and understand it.

Given the context of easily performed calculations from common-sense data that conflicts greatly with "conventional expert opinions", readers should think of this article as a piece of "investigative journalism" rather than as a "scientific treatise". Rather than merely refining already existing sound practice, this article is intended to help "shift a paradigm" of traditional thought, and help trigger a fresh start when looking at these matters. Once off to that fresh start, we can then refine our estimates by gathering more data and doing more calculations while applying traditional scientific methods.

Those concerned with truth in these matters will sense that we need to seize control of the discussion from "psychiatric authorities" who write untruths in obscure "scientific journals", and who then confront all criticism by showing their "credentials" rather than showing their data and their calculations. Having an "expert psychiatrist" tell us that a "scientific report says it is so" isn't good enough anymore. Instead, we need to see actual data and calculations that make basic common sense. We can then judge for ourselves if we believe the results.

By analogy, this is somewhat like surveying a piece of land. Suppose an "expert survey" says a piece of land is 2 acres in size, and we walk around and pace-off the land's dimensions and roughly estimate it to be 200 acres. Common sense tells us all that something is really wrong with the "expert survey". Sure, our rough estimate might be off a bit, and the land might be 150 acres or 250 acres instead. But common sense tells us it CANNOT be only 2 acres in size. We can then shift our concern to speculating about how or why the "surveyors" missed seeing the vast majority of the land they were supposed to survey!

Also, as we'll see, Lynn's estimates appear to be consistent with estimates of prevalence of transsexualism emerging in other countries around the world. Hopefully, by sharing and comparing our methods, data, calculations and results across many countries, we will

gradually get an ever clearer picture of the number of people intrinsically affected by transgender and transsexual conditions. Improved estimates of prevalence can then be an important factor in gaining improved levels of medical treatment, social support, and public policy support for those affected by this condition.

What is "prevalence"?

'Prevalence' is the number of cases of a condition present in a given population at a given time. If there are 100 cases of a medical condition in a city of 100,000, then the prevalence there at that time is 1 in 1000 (usually denoted as "1:1000"). It's really important to have some clue as to how prevalent a condition is, because that determines how much money is allocated to public health studies, medical research and medical treatment of that condition.

This is not to be confused with 'incidence', which is the number of new cases of a condition appearing in given population in a given year. Incidence and prevalence are related in complex ways. For example, for short-term conditions such as broken bones, many more people might have broken bones in a given year than those that have them at any one time. So the prevalence of broken bones at any one time would be smaller than the incidence of broken bones in a given year. If the average time to heal was four weeks, then the prevalence would only be 4/52 or ~ 1/13th as large as the incidence of broken bones.

However, in conditions such as transsexualism, which are usually self-diagnosed at a young age and last a lifetime, we find that the prevalence at any given time is much larger than the incidence (the number of NEWLY diagnosed cases in that year), perhaps by a factor of 30 to 40. When calculating prevalence, we consider the total accumulated number of current cases in a population, rather than the number of NEW cases each year.

Current-day authorities' statements about the prevalence of transsexualism:

Medical authority figures in the United States most often quote a prevalence of 1 in 30,000 for MtF transsexualism and 1 in 100,000 for FtM transsexualism. You'll see these figures over and over again, such as in recent news stories in the Washington Post [1] and the New York Times [2]. But don't these figures seem odd to you? They portray transsexualism as being incredibly rare. However, many people nowadays know a transsexual or know of some in their school, company or small community. Where do these "extreme rarity" figures keep coming from?

These figures are from the American Psychiatric Association's *Diagnostic and Statistical Manual of Mental Disorders (DSM-IV)* [3]. The numbers are often sent to the media by the two "elite psychiatric centers" that have long promulgated and dominated thinking

regarding "sexological and psychiatric theories of transsexualism", namely the Clarke Institute in Toronto, Canada and the Johns Hopkins School of Medicine in Baltimore, MD. Here is the actual quote from the DSM-IV-TR, August, 2000, p. 579:

"Prevalence:
There are no recent epidemiological studies to provide data on prevalence of Gender Identity Disorder. Data from smaller countries in Europe with access to total population statistics and referrals suggest that roughly 1 per 30,000 adult males and 1 per 100,000 adult females seek sex-reassignment surgery."

These figures are from decades-old data in the years when modern SRS had first became available. Some of the earliest published reports of estimates of prevalence originate with Walinder in Sweden in the 1960's. He calculated prevalences of 1:37,000 for MtF and 1:100,000 for FtM transsexualism. Those numbers were widely cited and disseminated among U.S. researchers at a conference on Gender Dysphoria Syndrome at Stanford in February 1973, during the early years of Stanford's gender program. Most later prevalence calculations then tended to "confirm" Walinder's early estimates, which were usually informally quoted as "1:30,000 and 1:100,000". Those were the prevalence numbers that I heard from Dr. Benjamin in the late 60's, and those are the numbers that we still see in the DSM today!

However, the number of people seeking and obtaining SRS has increased dramatically since the 1960's, as more affected people became aware of the possibility of treatment. More importantly, these figures do NOT indicate the prevalence of UNTREATED intense transsexualism. They only include those who bravely stepped forward and asked for SRS at a time when discrimination was incredibly intense. Common sense says there were many more who suffered in silence than came forward openly. But how many?

Doing some detective work to come up with better numbers:

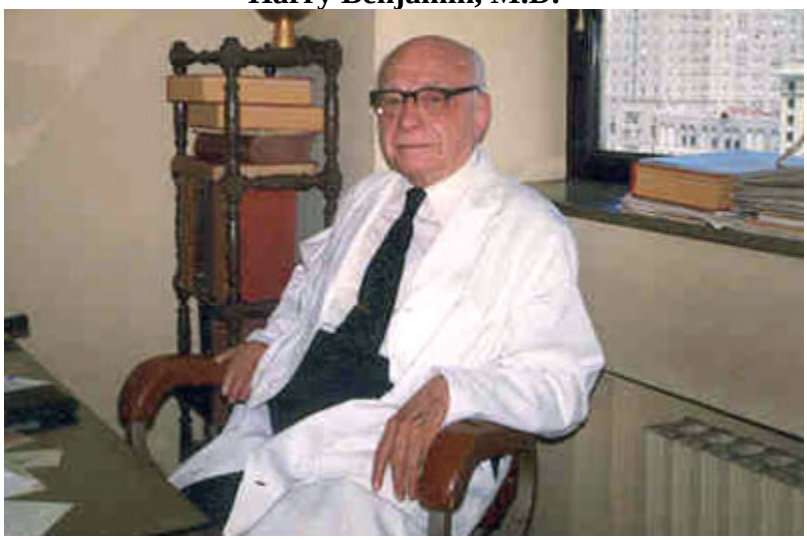
Let's do some "numerical detective work". It's not really all that difficult to do.

We'll simply estimate the actual numbers of postop transsexual women in the U.S. and then divide by the number of adult males (up to about age 60, since those older had little access to the surgery in the past). In the process, we'll find that the psychiatric "authorities" numbers are way, way too small - probably by as much as two orders of magnitude.

Before 1960, only a tiny handful of SRS operations were done on U. S. citizens. George Burou, M. D. of Casablanca, Morocco, then began doing a large series of operations in the 1960's using a vastly improved new "penile-inversion" technique. Harry Benjamin, M.D., a U.S. physician who had done pioneering research and clinical treatments of transsexualism, began referring many U.S. transsexuals to Dr. Burou and to several other

surgeons who used Burou's new technique. (Lynn later learned from Dr. Benjamin that in 1968 she had been among the first 600 to 700 transsexual women from the U.S. to have had SRS).

Harry Benjamin, M.D.



The great medical pioneer and compassionate physician
[photo taken by Lynn Conway in 1973]

The U. S. numbers grew during the 1970's as gender-identity programs at Johns Hopkins and Stanford University triggered an easing of restrictions on SRS in U.S. hospitals, and several U.S. surgeons began performing SRS. Even more patients went to Burou and other experienced surgeons abroad in the 70's. Lynn learned from Dr. Benjamin in mid-1973 that his records showed that ~ 2500 SRS operations had been done on U. S. transsexual women by that date.

The table below shows Lynn Conway's rough estimate of SRS operations done by major SRS surgeons both here and abroad on U. S. citizens in recent decades, extrapolated to include those done by many secondary surgeons (each performing smaller numbers per year). A range of values is given, from conservative to most likely numbers. Note that these numbers do not count other transsexual operations also done by these surgeons (such as mammoplasty, labiaplasty and SRS repairs). For more background on MtF sex reassignment surgery, see Lynn's SRS webpage [4].

At present about 800-1000 MtF SRS operations are now performed in the U. S. each year, and that many or more are performed on U.S. citizens abroad (for example in countries like Thailand, where the quality of SRS is excellent and the cost is much lower). Thus somewhere between 1500 and 2000 MtF SRS's are done per year on U.S. citizens and residents. The top three U. S. surgeons (Eugene Schrang, Toby Meltzer and Stanley Biber) together now perform a total of 400 or so SRS operations each year. There are a dozen or so other surgeons in the U.S. quietly doing smaller numbers of SRS's each year. The pioneering surgeon Stanley Biber has himself done over 4,500 SRS operations

since he began doing the surgeries in 1969; for many years Dr. Biber did two SRS's per day, three days per week!

TABLE 1: Estimates of MtF SRS operations among U. S. residents:

1960's	1970's	1980's	1990's - 2002
1,000	6000-7000	9,000-12,000	14,000-20,000

Calculating a lower bound on the prevalence of MtF transsexualism:

Adding up the numbers of surgeries over these decades, we find that there are roughly 30,000 to 40,000 post-op transsexual women in the U. S. Of course some surgeries done by U.S. surgeons are on foreigners (perhaps 15%?). And some who've undergone SRS have passed away by now. However, the majority of post-op transsexuals had SRS within the past 15 years, and a high percentage of them are still living. TS's in the smaller group who underwent SRS in the 60's to mid-80's were mostly young - in their twenties and early thirties, and thus most of those women are also still alive. Even accounting for mortalities, Lynn estimates that the number of post-ops in the US is greater than 32,000.

To calculate a rough lower bound on prevalence of MtF sex reassignment surgeries in the U.S., we simply divide the number of postop women, which is about 32,000, by the number of U. S. males between 18 - 60 (the age range from which most current post-ops originated), which is about 80,000,000:

32,000/80,000,000 = 1/2500.

Anyway, we discover to our amazement that at least one out of every 2500 persons who were originally male in the U. S. has ALREADY undergone SRS to become female! This 1:2,500 estimate is vastly higher than the 1:30,000 estimate so oft-quoted by the medical community. The DSM-IV number is clearly way off, and by at least a factor of 12! However, on closer examination we will find the error is far worse than even that!

However, you must remember that the DSM-IV "estimate" is for the *prevalence of transsexualism*, not the *prevalence of SRS*. Recent newspaper articles always make that interpretation, and refer to the 1:30,000 figure as a "the number of transsexuals", not the number of postop women.

Lynn estimates at least 3 to 5 times as many people suffer intense MtF transsexualism as those who have already undergone SRS. The reasons are obvious: Many transsexual people are unaware of the options and treatments for resolving the condition, and suffer in silence thinking there is no hope. Many are terrified to "come out" and seek help for fear of social stigmatization. Many more are incapable of paying the high medical costs

for transition. Thus there must be on the order of 100,000 to 200,000 UNTREATED cases of intense transsexualism in the U.S.

Thus the number of treated and untreated cases must be ~ 130,000 to 240,000. If the number were 160,000, which is nearer the lower end of this range, then the prevalence of intense transsexualism is ~ 160,000/80,000,000 = 1:500. This value is only a rough LOWER BOUND on the prevalence, and the intrinsic value could easily be much higher.

Doing a sanity check on these numbers:

We can do a quick sanity check of these results by calculating postop prevalence in a totally different way. Here we will calculating is "incrementally". We can do this by dividing the ongoing incidence of SRS each year by the incidence of male births in the U.S. each year. Since there are now about 1500 to 2000 SRS's per year and about 2,000,000 male births each year in the U.S, we find an incremental value for prevalence of between 1500/2,000,000 = 1:1333 and 2000/2,000,000 = 1:1000.

This result is actually more than twice that of the value calculated above (1:2500), because the (annual) incidence of SRS has risen over the past decades while the (annual) incidence of male births has remained fairly stable. This value is therefore somewhat closer to the intrinsic prevalence than earlier incremental values decades ago, because of more widespread knowledge of and access to treatments and a reduction in the stigmatization of transsexual people in recent years. This incrementally-determined value of recent SRS prevalence strongly supports a value of intrinsic TS prevalence of 1:500, and suggests that it is perhaps as high as 1:250.

Comparison of results with other rough projections of the prevalence of TG conditions:

Another form of sanity check can be done on these numbers. We can determine if they are consistent with rough projections of the prevalence of related gender conditions, and with expected ratios of the prevalence of those conditions.

In the United States there are varying estimates of the prevalence of crossdressing. Most conservative estimates are in the range of 2% to 5% of all adult males engage in routine crossdressing (1:50 to 1:20). These are people who crossdress part-time either privately at home, or in private CD clubs, and who find great satisfaction in this practice. In a majority of these cases there is mainly a male fetishistic motivation for the crossdressing. However, in a moderate fraction (1/3rd?) it mainly provides an outlet for mild to moderate to strong transgender feelings.

Some fraction of the "transgender" crossdressers moving through this community will go on to "transition", and take on a full-time social role as women. Of these, some will

complete a "TG transition" (without SRS), obtain new ID's, and live as women afterwards. A smaller group will complete a "TS transition" by also having SRS. In the United States those who complete a TS transition can in most states take on full legal status as women (updating their birth certificates, being able to marry men, adopt children, etc).

Long experience in the large crossdressers' clubs appears to indicate that at least 1/10th to1/20th of all crossdressers will eventually complete a full-time transition. Of those who do transition, a smaller fraction, perhaps 1/3rd of them, go on to a complete TS transition (including SRS). These numbers are what you hear if you simply ask crossdressers who are long experienced in these clubs. These rough numbers are also supported by the rough ratios of TG's and postopTS's to CD's in the major website listings of "transgender" people on sites such as Susana Marques TV/CD/TS/TG Directory [5], URNotAlone [6] and Fiona's Fantasyland [7]. Many thousands of (CD + TG +TS) girls are listed on those sites, and you can see the rough ratios by directly scanning those listings. While there are clearly many "self-labeling" problems in such sites, there is no reason to suspect that the self-labeled ratios are skewed very far from those actually encountered in the larger (non-"website") population.

These numbers provide another way to project some estimate expected prevalence of TS transitions, namely by starting at the top and working down. For example, if there only 1:50 adult males were CD's, and if only 1:20 of them transitioned, then we'd expect 1:1000 (TG + TS) transitions. This would predict a very conservative estimate of about 1:3000 for the prevalence of smaller number of TS transitions, which is of the same order of magnitude as we have calculated from the number of surgeries being performed. And of course, this estimate would be much higher if the prevalence of CD's and the fraction of CD's who transitioned were higher than the lower (conservative) values given.

There is yet another way to look at this: Most transgender activist groups in the U.S. estimate that about 1% to 2% of all people have strong transgender feelings and need outlets for expressing those feelings. Many of these people "act out" either by part-time crossdressing (and become the "transgender fraction" of crossdressers), or by adopting a full-time "gender variant" (neither male nor female) persona. Of these people, perhaps 1/3rd or so have more intense "transsexual" feelings and really would prefer to be in the other gender if they could find a way to do that. These numbers suggest some "intrinsic" prevalence of the "inner experience" of being "transgender" or "transsexual", namely for the prevalence of "strong cross-gender feelings" and for "intensely, desperately cross-gender longings" on the order of 1:50 and 1:150 respectively.

However, only a small fraction of such people could accomplish a TG or TS transition, even in the most accommodating of societies. Nevertheless, even if only 1/3rd to 1/5th of those people could transition, this would lead to a projected prevalence of TG transitions at about 1/150 and of TS transitions at about 1:500. In other words, those appear to be likely lower bounds on the "intrinsic" prevalence of such transitions if we started with young people right now and went forward into a time that is much more open to and supportive of such transitions than the past decades.

By cross-comparing all the above data and calculations, and exploiting the rough estimates of ratios of various conditions, we can construct the following table of rough projections of prevalences:

TABLE 2: Coordinated rough projections of prevalence of CD/TG/TS conditions in the U.S.:

Observed situations:	**Likely lower bounds on "intrinsic" prevalence**	**Conservative lower bounds on current prevalence**
P/T intense CD'ers:	1:20	1:50
Those with strong TG feelings:	1:50	1:200
Those with intense TS feelings:	1:150	1:500
TG transitioners (w/o SRS):	1:200	1:1000
TS transitioners (w SRS):	1:500	1:2500

Of course, all these are very rough numbers. They are still subject to definitional and "labeling" problems. Nevertheless, this table is suggestive of what the numbers might be and how the numbers would likely cross-compare from category to category. Note that the rough numbers we get "bottom-up" by counting surgeries in order to calculate an improved lower bound on TS transitioners in the U.S. (1:2500) are seen to be consistent with rough "top-down" derivations from the estimates of crossdresser groups and activist groups in the U.S. that there are roughly 1% to 2% of people who are TG, and perhaps 2% to 5% of males who engage in frequent (private/club) crossdressing. Thus this table "hangs together" in a common-sense way, and is suggestive of where to focus further research to refine these numbers.

The resulting matrix of projections of prevalences will vary greatly from country to country and culture to culture, since each culture differentially suppresses crossdressing vs transgender expressions, and different labels and categories would need to be included in different countries. In many countries there are traditionalized "third sex" social options to which many TG and TS people naturally migrate, whereas those same people were they to live in the U.S. might instead choose to complete a TG or TS transition here. Then too, the ratio of TS vs TG transitions varies greatly from country to country. In many countries where incomes are low and where social constraints are high, very few transgender people can ever afford SRS. In such countries, TG transition is usually the only available option. It would be very useful if researchers could gradually build and cross-compare the overall matrices of prevalences of transgender conditions among more and more countries. Such culture-by-culture prevalences matrices might help us better understand the underlying commonalities of innate conditions that lead to varying transgender personas as a function of one's culture of socialization.

Comparison of results with data on TS prevalence in other countries:

Let us now compare Lynn's estimates of TS prevalence in the U.S. with that in other cultures where transsexuals have access to some means for gender-transition. These comparisons are of course greatly complicated by the great differences in terminology, self-classification, gender-modification technology and cultural patterns among different countries. Even so, we can make some rough comparisons that help to further triangulate on the numbers.

For example, most rough estimates of the number of Hijra in India range around 1,000,000 in a country of about one billion population. Since there are about 375 million males over age 13 in India, the prevalence of Hijra there is roughly 1:375. Recent communications between Hijra gurus and western transsexual women suggest that a majority of those who undergo the primitive Hijra "sex change" surgery are early-onset intense transsexuals. Becoming Hijra involves a great loss of social status, and so there must be many TS's in India who do not become Hijra. Thus the value of 1:375 appears to be a reasonable lower bound on the intrinsic level of intense transsexualism in India.

These numbers are further supported by a recent survey of transsexuals in Malaysia [8], where there is a ghettoized "street tranny" culture somewhat like that in the U. S. The Malaysian count yielded 50,000 "transsexuals living as women" (i.e., TG + TS transitioners) in a population of 21.8 million. These women correspond to the "TG transitioners" in the U.S. (those "shemales" who socially transition but do not have SRS). The prevalence of TG transitioners in Indonesia is thus 50,000 divided by about 8.2 million males over age 13, and is therefore about 1:170. Some moderate fraction of this number (1/3rd? 1/5th?) are likely to be intensely TS and would undergo SRS if they could find a way to do that. In addition, there are undoubtedly many more TG + TS people among the larger population who do not transition due to the extreme social degradation that results. Therefore, the value of 1:170 is likely to be of the same order of magnitude of the prevalence of transsexuals in that society. (Note that earlier estimates [9] suggest that there are at least 10,000 transsexual women in Malaysia, yielding a prevalence of at least 10,000/8,200,000 ~ 1:820; this value also falls within the same order of magnitude as Lynn's estimates).

In 2001, Donna Patricia Kelly [10] made an estimate of the prevalence of transsexualism in the United Kingdom using Lynn's methods as described in this report. Using a conservative estimate of the number of postop women in the U.K., Donna calculated the lower bound on the prevalence of postop women in the U.K. at ~ 1:3750, and estimated the prevalence of MtF transsexualism to be ~ 1:750. These values are also in the same general range as Lynn's estimates.

The numbers are also in the same ballpark as those found by Sam Winter of the Faculty of Education, University of Hong Kong, Hong Kong, in his paper entitled "Counting

kathoey" [11], in which he reports counting approximately 6/1000 MtF (TG + TS) social transitioners (i.e., 1:167) among large numbers of passersby in various locations in Thailand. That paper is highly recommended reading for its description of a novel method for estimating (TG +TS) prevalence (counting katheoy among passersby using katheoys as top-experts at "reading other katheoys" among passersby). It seems likely that a modest fraction of this number (1/3rd? 1/5th?) are intensely TS and either have undergone or would undergo full TS transition if they could. Thus the number supports a lower bound on TS prevalence on the order of 1:500 to 1:800 or so. [It would be valuable if further research could clarify the fraction of TS/(TG+TS) among Katheoy, i.e., the fraction of Katheoy who have had SRS, and whether that number is or is not constrained by the costs of SRS in Thailand.]

All these studies begin to triangulate on a likely prevalence of intense MtF transsexualism in the range of 1:500 or even larger. This is almost one hundred times the number (1:30,000) published by the APA in the DSM-IV-TR! Therefore, the DSM-IV prevalence numbers must be too low by about two orders of magnitude.
The numbers also indicate a prevalence of transgender (TG) transition (without SRS) in the range of more than 1:200 in many countries.

Comparisons of TS prevalence with the prevalence of other medical conditions:

By comparison, consider the prevalence of other long-term duration conditions that have profound impacts on people's lives. The approximate prevalence of muscular dystrophy is 1:5000, multiple sclerosis (MS) is 1:1000, cleft lip/palate is 1:1000, cerebral palsy is 1:500, blindness is 1:350, deafness is 1:250, self-reported epilepsy is 1:200, schizophrenia is about 1:100, and rheumatoid arthritis is about 1:100. All of these conditions are high on our society's radar screen and there is massive public empathy for those who suffer from them. There are large research funds available for studying and treating these conditions, and patients have welcome access to any existing medical treatments that might relieve such conditions.

Contrast those situations to intense transsexualism, which has an equally profound impact upon a person's life. This socially unpopular condition is totally off our society's radar screen, access to effective treatment is out of reach for the vast majority of sufferers, and the wider medical establishment and social welfare community are totally unaware of the relatively high prevalence (~1:500 to ~ 1:250 or more) and frequently tragic impact of the condition when simultaneously stigmatized and left untreated.

Sanity-checking the claim that the psychiatrists' numbers are way off:

We can also sanity-check our claim that the psychiatrists' estimates of the prevalence of transsexualism are way, way off. This is easy to do by simply calculating some implications of those numbers and observing that the implications are ridiculous.

For example, if only 1:30,000 males were intrinsically transsexual, and if we expect at the very most that only 1/4 of them find help and go through a complete transition including SRS, then only 1:120,000 males would have SRS and become a postop woman. Since there are 80,000,000 males between 18 and 60 in the U.S., this estimate of SRS prevalence says that there would be only about 670 postop women in the U.S.! But of course we know that there are probably two to three times that many males undergoing SRS every year, so this is obviously a fantastically too-small result.

Another way to look at it is this: If only 1:120,000 males were at some time during their lives having SRS, and if the span of ages for SRS was uniformly distributed between about 18 and 58 (a 40 year span), then only 1/40th of those males would be having SRS in any given year. Thus we'd expect only 17 U.S. citizens and residents to have SRS each year! Again, that's a ridiculously low number, and is clearly off by about a factor of about 100.

Why do psychiatrists propagate such erroneous values for the prevalence of transsexualism?

As we've seen, the DSM-IV values for the prevalence of transsexualism are wrong by about two orders of magnitude. Why would the psychiatric community so grossly understate the TS prevalence numbers? And if they aren't doing it deliberately, how could they be so ignorant of their error? Let's speculate on what's going on here.

Part of the problem is just plain ignorance. The psychiatric community only "reads its own publications". If the only published report about the prevalence of transsexualism in their journals is a totally outdated, flawed one from decades ago, that's the paper they will quote! Anything else "is not considered science" to them, and they won't pay any attention to it.

The psychiatric community also generally ignores cross-cultural or anthropological studies of human behavior that might better illuminate conditions here in the U.S., and thus is not aware of recent prevalence data emerging from other countries. The community also seems out of touch with what goes on in the real world of transsexual therapy and surgeries, or even simply what goes on on the streets in our own society. Instead, they treat whoever "comes through their door". They are thus subject to all sorts of distortions in their perceptions of transsexual people by seeing only the small biased samples of transsexual people who unwittingly go see psychiatrists.

Perhaps most importantly, it is the strong self-interest of psychiatrists to have their patients believe that transsexualism is incredibly rare, for then takes years of expensive

counseling for the psychiatrist to be convinced that a patient is a "true transsexual" who needs SRS. Psychiatrists can reinforce a very "conservative, non-permissive" approach to treating transsexualism IF they can continue to assure society that "true transsexualism is incredibly rare", and that most people who seek "sex changes" are mentally ill and in need of "shrinking" by psychiatrists to cure them of their "delusions".

The complete invisibility of the large numbers of post-op TS women living in stealth also keeps the estimates low. After all, the only transsexuals visible to most people in our society (who don't see the big-city late-night street scene) are the small TS minority groupings of (i) young and openly effeminate boys and (ii) older transitioners and autogynephiles who are having difficulty passing and coping during or after transition. Those are also the only groups who tend to be seen by psychiatrists. The street trannies living in big city ghettos are off everyone's radar screen and never see psychiatrists. And the large numbers of more advantaged young to middle-aged transsexuals who are managing their own transitions would never think of going to a psychiatrist to "help them with their mental illness problems". Instead they almost all go to experienced, non-judgmental, practical-minded gender counselors nowadays.

Most psychiatrists therefore never see any of the vastly larger number of inconspicuous, successfully-transitioning transsexuals here in the U.S. Most of these women quietly undertake social/hormonal transitions with the help of practical (non-psychiatric, non-behaviorist) counseling. They enter and complete their real life experience (RLE), obtain SRS, and then assimilate as women back into society in stealth mode, without ever interacting with traditional psychiatrists. (For examples of such cases, see Lynn's TS Women's Successes webpage [12]). Most psychiatrists don't even have a clue that these many successful transitioners even exist!

Perhaps the explanation is at an even more mundane level. It might be that almost no one in the psychiatric community thinks quantitatively, in the manner of scientists and engineers, so perhaps it's no surprise they didn't notice or grasp how far off their numbers were! Echoing a question that Christine Burns (then Vice President of Press for Change in the U.K.) asked upon reading Lynn's numbers in 2001, we might ask "Can Psychiatrists Count?"

Thus it took a research engineer (Lynn Conway, in January 2001) to visualize that there was a gross error in the oft-quoted prevalence values, and then do these calculations showing that the prevalence of postop transsexual women in the U.S. is at least 1:2,500, implying that the prevalence of intense transsexualism is at least 1:500, and maybe more.

Other pressures to "keep the numbers small":

When this report went into circulation in 2001, the first strong signals of resistance to Lynn's higher values of TS prevalence came from a surprising source: From other transsexual women themselves.

The resistance was often extremely strong and irrational in form. It usually took the form of outraged "denials" and claims that "those numbers can't be right because the experts have known for decades that it's 1:30,000". Many argued about fine details in the calculations that might change the result by small factors one way or the other, and then claimed that therefore the "whole thing was totally wrong". None of these folks seemed to grasp that the old numbers are orders of magnitude in error, and that any small factors pale beside such huge errors.

But why would transsexual women not want to believe these new numbers? Why wouldn't they even try to check out the calculations for themselves? There appear to be two main reasons why some transsexual women are so highly invested in the old "1:30,000" value of TS prevalence.

The first reason is simple: It is ever so much more special to "be a transsexual" if it is "very, very rare". In many web bios and coming-out sites we find many statements such as "I am one in only 30,000 people who have this condition". Lynn speculates that this concept of "great rarity" endows some TS women with a sense of "specialness" that helps counter the embarrassment and humiliation they feel when coming out. Such women then strongly resist the idea that being transsexual may not be particularly rare or special after all.

The other reason for denying the reality of these new numbers is a concern about medical care: In past efforts to get insurance companies to pay for hormones and SRS, the 1:30,000 number has always been used to calm fears about what it would cost to implement those programs. By claiming that transsexualism is incredibly rare, activists have projected that it would cost very little to pay for all transitional medical care for TS people. Thus the possibility that transsexualism is 100 times as common as they previously thought came as a great shock to them.

However, their concern about the new numbers hurting the case for medical insurance coverage is overblown: After all, even if the prevalence is 1:500, then the INCIDENCE of transitions in any given year is only 1/20th to 1/40th of that. Thus the actual number of people who might transition each year in the future is perhaps 1:10,000 to 1:20,000, which is still a VERY small number. Thus the higher values of TS prevalence should not hurt chances for gaining insurance coverage or government medical program coverage for hormones and SRS. Concerns about such programs should certainly not be a reason to deliberately hide clear evidence that the prevalence of transsexualism is much higher than thought years ago. In many ways the higher prevalence should get medical authorities to take the situation of transsexual people more seriously and be more concerned about their treatment - since it isn't such a "totally rare" condition after all.

Our numbers challenge the veracity and credibility of the psychiatric community and the DSM-IV-TR:

Lynn's new, improved estimates of prevalence numbers, based on simple obvious counts and arithmetic, are a direct CHALLENGE of the U.S.psychiatric community's credibility, professionalism and veracity in the entire area of transsexualism. Psychiatrists might quibble with the details of Lynn's estimates, but they can't escape the order of magnitude of their own error. That community's error of two-orders-of-magnitude in their estimate of the prevalence of transsexualism is truly egregious.

The obviousness of this error has heightened reactions in the transgender community to the DSM-IV's proferring of incorrect information about transsexualism. Lynn's numbers have widely circulated in the trans community in the U.S. They are included, for example, in the Gender Identity of Colorado's webpage resource for the Reform of Gender Disorders in the DSM-IV-TR, located at http://gidreform.org/ [13], as part of that site's well-reasoned indictment of the psychiatric profession's mis-characterization of transgenderism and transsexualism.

It's also somewhat amazing that the Harry Benjamin International Gender Dysphoria Association (HBIGDA) itself hasn't ever bothered to do a survey of the number of SRS operations being performed. Even so, the recently released Version 6 of the HBIGDA Standards of Care [14] gives a prevalence estimate as follow: *"The earliest estimates of prevalence for transsexualism in adults were 1 in 37,000 males and 1 in 107,000 females. The most recent prevalence information from the Netherlands for the transsexual end of the gender identity disorder spectrum is 1 in 11,900 males and 1 in 30,400 females."*

Thus we see HGIBDA quoting somewhat newer, but similarly flawed "survey studies". Amazingly, HBIGDA carries their results out to three significant digits, implying that these are "very accurate results"! They also quote these values not as new lower bounds on prevalence but as actual values of prevalence, as did the psychiatrists.

HBIGDA thus continues to propagate the methodological errors of the psychiatrists, quoting yet another "foreign survey study" based on *known* SRS numbers which are obviously a subset of the total SRS numbers. Any such study greatly underestimates *actual SRS numbers that include many women in stealth*, and even more vastly underestimates the much larger numbers of pre-op intense transsexuals in that country.

These numbers also present a challenge to the wider medical community, public health community, social welfare community, and government bureaucracies:

The bottom line is that transsexualism is at least two orders of magnitude more prevalent than previously recognized by the U.S. psychiatric community. This result has important implications for the diagnosis and treatment of transsexualism, and for the construction of humane social policies regarding people having this condition. It also helps to better put

into perspective the even larger prevalence of transgender conditions, and of transgender (TG) social transitions.

For example, the presence of thousands of thrown-away and run-away transgender and transsexual teenagers in the large inner-cities in the U.S. has gone completely unrecognized and passed under our society's "radar screen". Most people who encounter TG and TS sex workers on our city streets simply assume that they are "gay". However, there is very little overlap between the TG/TS girls and the gay male community in most of our cities, and thus the HIV prevention work aimed at gay men has not reached into the TG/TS communities. This has led to a heretofore unrecognized HIV epidemic and countless human tragedies among these transgender street kids, as recently reported in Salon.com SCIENCE & HEALTH [15].

Out of ignorance of the realities of TG and TS conditions and the prevalence of the condition, the medical establishment in the U.S. has also persisted in often inhumane treatment of TG/TS people who seek emergency medical help, even when they do so for non-gender-related emergencies. In response to this problem, the American Public Health Association has issued a public health policy statement regarding "The Need for Acknowledging Transgendered Individuals within Research and Clinical Practice," (APHA Public Policy 9933) [16] beseeching the medical community to treat TG and TS people, and treat them more compassionately and professionally.

Fortunately, many enlightened cities and corporations in the U.S. have noticed that transgender and transsexual people are not uncommon, and have taken steps to protect their human rights. A number of major cities in the U.S. (New York City, Boston, Philadelphia, Dallas, etc.) have recently passed new laws providing protections from discrimination for TG and TS people. Some cities such as San Franscisco are also providing shelters and support clinics to help young "street trannies" with hormones, identification papers and employment counseling. Many prominent corporations in the U.S., especially those in high-technology, are now providing "Equal Opportunity" employment protections for TG and TS people. In many of those companies transsexual people can even transition "on-the-job" without fear of loss of employment.

However, the bureaucracies in some states in the U.S.still have poorly coordinated procedures for the updating of driver's licenses, birth certificates and other ID's and personal records of transitioners. In past decades when the transsexualism was considered "extremely rare", some states did not bother to formalize any procedures for changing the records of those who change gender, and these situations were often handled one-at-a-time in an ad-hoc and inconsistent manner. Hopefully the increased visibility and activism of TG and TS people, along with a better sense of the prevalence of these conditions, will lead those states to update their bureaucratic procedures to properly accommodate changes in gender.

Conclusions

In this report we found that the prevalence of SRS in the U.S. is at least on the order of 1:2500, and may be as much as twice that value. Therefore, the intrinsic prevalence of MtF transsexualism here must be on the order of ~1:500 and may be even larger than that. These results appear to be consistent with studies of TS prevalence in recent studies in other countries.

These results stand is sharp contrast to the value of prevalence (1:30,000) so oft-quoted by "expert authorities" in the U.S. psychiatric community to whom the media turns for such information. We explored reasons why that community might persist in quoting values of prevalence that are roughly two orders-of-magnitude too small. We speculate that this large error has been perpetuated due to a combination of ignorance, financial self-interest, urges to control the discussion, and an inability to think quantitatively on the part of many psychiatrists. Or perhaps the old estimates of the psychiatrists are like "urban legends", and simply get automatically and thoughtlessly propagated over the decades, without anyone ever questioning whether they even make any sense. Whatever the reasons, it is clear that the psychiatrist's estimates of TS prevalence are way, way off, and by a factor of ~100.

The discovery of such a large error in the widely-quoted estimates of TS prevalence presents many challenges to traditional thinking in the medical community, public health community, social welfare community, and government bureaucracies - and not only about transsexualism but also about the even larger number of transgender transitioners in our society. All these institutions should take transsexualism and transgenderism much more seriously than in the past, and should more thoughtfully and rigorously consider the social welfare and human rights of the many transsexual and transgender people among us.

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