

Suicidal ideation and suicide attempts in persons with gender dysphoria

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Abstract

Background: The little research there is about suicidal behaviour in those with gender dysphoria indicates that they are at a much higher risk of death by suicide and suicidal behaviour than the general population. The objective of this research is to analyse the prevalence of suicidal ideation and suicide attempts reported by people who attended consultations at the Gender Identity Treatment Unit between 2007 and 2017 presenting complaints related to gender dysphoria. **Method:** An ex-post facto study with a sample of 151 people who were clients at the unit, 97 in the male to female trans group, 54 female to male. Clinical evaluations were carried out assessing variables of suicidal ideation and attempts, along with a possible psychiatric diagnosis. **Results:** Almost half (48.3%) reported suicidal ideation, 23.8% had attempted suicide. **Conclusions:** There are higher levels of suicidal ideation and suicide attempts in people with gender dysphoria than in the general population. No differences were seen between groups in terms of gender/sex. Psychiatric morbidity was not an influential variable for suicidal behaviour. This suggests that suicidal ideation is one of the best indicators of the risk of suicidal behaviours.

Keywords: Gender dysphoria, suicidal ideation, suicide attempts.

Resumen

Ideación e intención suicida en personas con disforia de género. **Antecedentes:** las escasas investigaciones sobre la conducta suicida de personas con disforia de género han señalado que estas tienen un riesgo de mortalidad y comportamiento suicida muy superior a la población general. El objetivo de la presente investigación es analizar la prevalencia de la ideación suicida y de los intentos de suicidio autoinformado de las personas que han realizado consulta entre 2007-2017, en una Unidad de Tratamiento de Identidad de Género por presentar quejas relacionadas con disforia de género. **Método:** estudio ex post facto con una muestra de 151 personas que realizaron demanda en esta unidad, 97 del grupo de hombre a mujer (64,2%) y 54 de mujer a hombre (35,8%). Se les realizó una evaluación clínica contemplando variables sobre ideación e intentos de suicidio, así como un posible diagnóstico psiquiátrico. **Resultados:** el porcentaje de estas personas con ideación autolítica asciende al 48,3% y un 23,8% ha intentado suicidarse. **Conclusiones:** hay más tasas de ideación y tentativa de suicidio en las personas con disforia de género que en población general. No se observan diferencias significativas en razón de la variable sexo/género. La morbilidad psiquiátrica no resultó ser una variable influyente en la conducta suicida.

Palabras clave: disforia de género, ideación suicida, intentos de suicidio.

Suicide is currently a serious public health problem, with more than 800,000 deaths annually worldwide (World Health Organization - WHO, 2014). In 2014 in Spain, according to data from the Statistical National Institute (2016), suicide remained the leading external cause of death, with 3,910 fatalities, almost 10 suicides per day. Despite this, the number of suicides is often underestimated, the associated stigma, social and political factors, and insurance policy rules also influence this underestimation (WHO, 2014).

In terms of suicide attempts, epidemiological results are even more problematic, this is because only a small percentage of those who attempt suicide need, or seek, medical attention so the majority of suicide attempts are unreported and unrecorded (WHO, 2014). Nonetheless, the WHO estimates the frequency or attempts as 10 or 20 times greater than that of suicides.

Given the amount and complexity of behaviours related to suicide, in this study we focus on suicide attempts and suicidal ideation following the definitions put forward by O'Carroll, et al. (1996). They define a *suicide attempt* as: a potentially self-injurious behaviour with a nonfatal outcome, for which there is evidence (either explicit or implicit) that the person intended at some level to kill themselves. A suicide attempt may or may not result in injuries. On the other hand, *suicidal ideation* would be whenever the subject has thoughts of carrying out suicide-related behaviours.

Within gender dysphoria (GD), transsexual people have the conviction that they are of the opposite sex to that which they were born into, with a continued sense of dissatisfaction and rejection of their own primary and secondary sexual characteristics, and with a profound feeling of rejection and a desire for medical and surgical changes to modify their body and make it conform with the gender they feel to be. From infancy their mental identity is different to their genital phenotype: they are women who feel "trapped" in a man's body (Female transsexual FT), and men who feel "trapped" in a woman's body (Male transsexual MT). They do not have any serious psychiatric disorders that would distort their perception of reality and only need to be accepted by society and

legally as their chosen gender (Fernández Rodríguez, & García-Vega, 2012; Gómez Gil, Esteva, & Bergero, 2006).

There is little information available about suicidal behaviours in people with GD, (Jiménez Zarazúa, Rodríguez Salinas, Motilla, & Mascareñas, 2015; Mathy, 2002) but various studies have found that they have a higher risk of death by suicide and suicidal behaviour than the general population, although the data are quite variable (Asscheman et al., 2011; Dhejne et al., 2011; Sánchez, Casquero, Chávez, & Liendo, 2014).

With respect to suicidal ideation, the research suggest between 37% and 74% of those with GD reported suicidal ideation (see table 1), very different to the results from Miret et al (2014) reporting 3,67% of the general population.

Miret et al. (2014) carried out research in which they used an adapted version of the Composite International Diagnostic Interview (CIDI), an interview which allows the diagnosis of the principal mental disorders. In that research they found that, of the 4,583 people interviewed, 3,67% had had suicidal thoughts, and 1,46% had attempted suicide at some point.

In non-random interviews with transsexuals it was found that up to a third of those interviewed had attempted suicide one or more times in their lives (Dixen, Maddever, Maasdam, & Edwards, 1984). A more recent study by Haas, Rodgers, & Herman (2014), showed that rates of suicide attempts in transsexual people reached 44%, an extremely high percentage compared to the 1.6% rate found in the general population (see table 2)

Finally, the relationship between psychiatric disorders and suicide has been the focus of much research, and has provoked significant debate, leading them to be generally established as significant risk factors in suicidal behavior (Gómez-Duran et al., 2006). We assume

the non-pathologization of gender dysphoria (Mas-Grau, 2017), and consider that it is possible that suicide attempts may be more related to a psychiatric disorder than to gender dysphoria.

Based on this, the aim of this research is to analyse the prevalence of suicidal ideation and suicide attempts in a sample of 151 users of the Gender Identity Treatment Unit (UTIGPA), and to examine whether there are significantly significant differences in terms of sex/gender or psychiatric morbidity. The following hypotheses are proposed: 1) People with GD will exhibit rates of suicidal ideation and suicide attempts that are in line with similar research, and higher than those of the general population; 2) No significant differences are expected in suicidal ideation and suicide attempts in terms of sex/gender; and 3) Psychiatric morbidity will be an influential variable both in suicidal ideation and suicide attempts.

Method

Participants

The sample was made up of $N=151$ people with a mean age of 35.3 years old ($SD=12.27$) who had had consultations with the UTIGPA in the time since it opened ten years ago (2007-2017).

The UTIGPA clients were in varying stages of their transsexual processes. Some had not yet started feminising or masculinising hormone treatments, whereas others were on courses of hormone treatment, or had already had some facial or other surgery, and a small number were on the waiting list for genitoplasty.

Out of the 151 people making up the sample, 97 were FT and 54 MT. The gender ratio is 1.8:1 in favour of FT.

The age of the person in the sample when they first attended the UTIGPA ranged between 12 and 79 years old ($M= 30.32$; $SD= 11.49$) (see table 3).

Instruments

Each person completed a semistructured interview, carried out in the aforementioned unit in accordance with the criteria in the

Table 1
Studies that refer to the percentage of people with GD who have attempted suicide

Authors (year)	FT (%)	MT (%)	Total (%)
Mathy, (2002)	–	–	23.3
Bockting et al., (2005)	–	–	47
Kenagy, (2005)	–	–	30.1
Xavier et al., (2005)	–	–	16
Clements-Nolle, Marx & Katz, (2006)	32	32	32
Grossman & D'Augelli, (2007)	–	–	26
Scanlon et al., (2010)	–	–	43
Grant et al., (2011)	–	–	41
Spack et al., (2012)	–	–	9.3
Haas, Rodgers & Herman, (2014)	42	46	44
Holt, Skagerberg & Dunsford, (2014)	12.3	13.9	13.3
Guzmán-Parra, et al., (2016)	21.8	24	22.8

Table 2
Studies that refer to the percentage of people with GD who have had suicidal ideation

Authors (year)	FT %	MT %	Total %
Mathy, (2002)	–	–	37
Xavier et al., (2005)	52	33	42.5
Hoshiai et al., (2010)	76.1	71.9	74
Holt, Skagerberg & Dunsford, (2014)	38.3	32.8	35.5
Guzmán-Parra et al., (2016)	46.5	58.3	52.4

Table 3
Sociodemographic data

	FT n (%)	MT n (%)	Total N (%)	
Age consultation UTIGPA	M= 36,4 DT= 12,67	M= 33,41 DT= 11,39	M= 35,3 DT= 12,76	F₍₁₄₃₎ =0,109
Origin				
Spain	73 (75,3)	46 (85,2)	119 (78,81)	$\chi^2_{(1)} = 10,29^*$
Latin america	19 (19,6)	4 (7,4)	23 (15,23)	
Europe	2 (5,1)	4 (7,4)	6 (6,2)	
Level of education				
Primary	61 (63,2)	27 (50,0)	87 (57,6)	$\chi^2_{(1)} = 2,004$
Secondary	30 (31,6)	15 (28,6)	45 (30,3)	
University	5 (5,1)	11 (21,4)	18 (12,1)	
Psychiatric morbidity				
No history	42 (43,3)	23 (42,6)	65 (43)	$\chi^2_{(1)} = 0,374$
Depression	18 (18,6)	11 (20,4)	29 (19,2)	
Anxiety	5 (5,2)	3 (5,6)	8 (5,3)	
Substance use disorders	10 (10,3)	5 (9,3)	15 (9,9)	
Other pathologies	9 (9,3)	6 (11,1)	15 (9,9)	
Depression and anxiety	13 (13,4)	6 (11,1)	19 (12,6)	
* $p < 0,05$				

DSM 5 (American Psychiatric Association, 2013) (and initially DSM IV) and ICD-10 (World Health Organization, 1992), in which sociodemographic, clinical, and psychiatric information is gathered. The following variables were extracted from these evaluation protocols: age, sex/gender, country of origin, level of educational attainment, and psychiatric morbidity. The latter was categorized as: depressive disorders, anxiety disorders, anxiety and depressive disorders, and substance abuse. A further category of “other pathology” was added, in which the varied diagnoses in the subjects’ histories were included, such as: personality disorders, eating disorders, bipolar disorder, unspecified mood disorders, post-traumatic stress disorders, compulsive gambling, hyperactivity, agoraphobia, impulse control disorders, adaptive disorders, and dyslexia, among others.

Suicidal ideation: There are no specific instruments for this population, the scale from Okasha, Lotaif, & Sadek (1981) was used. This scale is self-administered, and made up of four questions, the first three explore suicidal ideation and the fourth looks at suicide attempts. It has high validity $\alpha=.82$, and the advantage of evaluating suicide risk without needing to perform a psychiatric diagnosis. The sample in this study registered an $\alpha=.96$.

As a dependent variable, ideation was scored dichotomously, where (1) was equivalent to answering “yes” to all the questions and (2) was equivalent to answering “no” to at least one question; (0) would be the absence of ideation. The question of whether ideation continued every day for at least two weeks was also examined.

Suicidal ideation was evaluated through three questions, which were those used to define the three categories for this variable:

- I have never thought about suicide- absence of suicidal ideation
- *Ideation 1 (Q1):* Have you ever thought that life was not worth living and thought a lot about death?
- *Ideation 2 (Q2):* Have you ever wished you were dead, have you ever felt that you wanted to die?
- *Ideation 3 (Q3):* Have you ever thought about ending your life, have you ever considered suicide?

If the subject responded yes to one of these questions it would satisfy the criteria of suicidal ideation. The ideation would be considered severe if the answer to two or three questions were yes, and mild if only one question received an affirmative response.

If the subject responded yes to one or more of the three questions, the scale included a fourth question about attempted suicide.

Suicide attempts. Have you ever attempted suicide? If the subject responded yes to this question, it would satisfy the criteria of suicidal intent.

In addition to the questions in the scale, the study also considered:

- *Age,* age at the time of suicidal ideation, and age at the time of any suicide attempts.
- *Number of suicide attempts.* The subject is asked how many suicide attempts they have made.
- *Methods used in suicide attempts.* The subject is asked about the method (plan) used when they attempted suicide. This variable was operationalised using the coding method

in the ICD-10 related to suicide and intentional self-harm (codes X60-X84).

- *Psychiatric comorbidity:* Diagnostic assessment was made after several sessions with both mental health professionals (psychiatrist and psychologist).

Procedure

Once the plan of work was produced and accepted by the Health Area III Research Committee, subject selection was carried out by consecutive sampling of people who had attended the UTIGPA. These people had presented complaints related to gender dysphoria, and on evaluation had been diagnosed with gender dysphoria according to the current criteria of the DSM-5 (initially the DSM-IV) and ICD-10, and in met the criteria in the care standards from the World Professional Association for Transgender Health (WPATH). Those with other gender identity disorders were not considered for this study. Data collection was carried out during consultations which had been previously planned as diagnostic evaluations. The instruments were applied individually.

Data analysis

The SPSS statistics package was used for data analysis. Descriptive analysis was performed in order to obtain means and percentage scores of the variables. The non-parametric the chi-squared test were used to test whether there were statistically significant differences in suicidal ideation or suicide attempts in terms of gender/sex or other sociodemographic variables. With the aim of selecting the subset of predictor variables for suicidal ideation and suicide attempts, a regression analysis was performed with suicidal ideation and suicide attempts as dependent variables, and psychiatric diagnosis as related variables. The significance level in this study is $p<.05$.

Results

Suicidal ideation: From the total sample, 73 people answered “yes” to one or more of the three questions in the suicidal ideation questionnaire from Okasha et al (1981). This represents 48.34%, of whom 47 were FT and 26 MT. Following the statistical analysis of this variable we can conclude that there is no statistically significant difference between the two groups ($\chi^2(1, N=73) = 0.001, p=.971$).

In terms of age, the mean age at which subjects first thought about suicide is 19.55 years old ($SD = 9.77$), and ranges from 8 to 40 for MT ($M=14.9, SD=0.48$), and 12 to 52 for FT ($M=23.35, SD=11.00$). No significant differences were found between the two groups ($\chi^2(24, N=73) = 19.163, p=.743$).

Forty six people responded “yes” to all three questions, 27 FT and 19 MT, which indicates severe ideation. Mild ideation, answering “yes” to just one of the three questions was indicated by 17 FT and 13 MT. No significant differences were found between the FT and MT groups ($\chi^2(2, N=73) = 1.753, p=.416$).

In terms of suicide attempts, 36 people answered “yes” to the question of whether they had ever attempted suicide, 22 FT and 14 MT. Following analysis of this variable we can conclude that there are no statistically significant differences between the two groups $\chi^2(1, N=36)=121, p=.728$. Sixteen of the subjects had attempted

suicide on one occasion, 20 on two or more occasions, and one person had tried to end their life seven times. The mean number of attempts was 2.1 ($SD=2.89$).

If we examine the subjects' ages at their first attempt at suicide, 16 were under 18 years old, 12 were between the ages of 18 and 29, and 4 were between 30 and 46. The mean age was 19.97 ($SD=8.85$).

With respect to the methods used, and following the coding schema from ICD-10 related to suicide and self-inflicted harm (codes X60-X84), the results are detailed in Table 4.

In terms of psychiatric background, from the overall sample, 29 people had been diagnosed with depression (19.2%), of whom 32.65% had attempted suicide on one or more occasions. Eight UTIGPA clients (5.3%) had been diagnosed with anxiety, 26.9% of whom had attempted suicide on one or more occasions. If we look at intoxicating substances, 15 people from the sample (9.9%) had problems associated with consumption of this kind of substance, of whom 36.36% had attempted suicide at least once. A regression analysis was carried out looking at ideation and suicide attempts as dependent variables and the psychiatric diagnosis as predictor variables: depression, anxiety, medication overdose, anxiety and stress, and other pathologies. The only statistically significant relationship found was between suicidal ideation and other pathologies, and between suicide attempts and other pathologies, although in both cases the variation explained is very small. $F_{(5)} = 2.150, p < .05, R^2 = .037$ y $F_{(5)} = 3.175, p < .05, R^2 = .068$. The best predictor variable for suicide attempts is suicidal ideation. $F_{(7)} = 14.787, p < .01, R^2 = .392$.

Discussion

The persistent sense of discrepancy that people with GD feel about their assigned gender and their felt gender posts them in a vulnerable situation, due to a continuing dissatisfaction with and a rejection of their own primary and secondary sexual characteristics. This may represent a risk factor for suicidal behaviours, as various studies have found that GD is associated

with an increased number of suicides compared to the general population (Bodlund & Kullgren, 1996; Clements-Nolle et al., 2006; Hepp, Kraemer, Schnyder, Miller & Delsignore, 2005; Jiménez Zarazúa et al., 2015).

The UTIGPA has recorded a total of 151 clients since it opened in 2007. This represents a prevalence of 1.5 per 10,000 inhabitants, which is higher than in other Spanish studies, for example in Catalonia the prevalence was estimated to be 1/34,000, and in Andalucía 1/12,500 (Hurtado Murillo, 2015). The gender ratio of clients in the unit is 1.8:1 FT/MT, which is similar to Andalucía (1.6:1) but lower than in Catalonia (2.1:1) (Gómez-Gil et al., 2011).

Analysis of the suicidal ideation variable shows us that almost half of UTIGPA clients (48.34%) have had thoughts of this nature at some point in their lives, result is similar to that found in other studies. This is an extremely high proportion, and is much greater than the percentage found in the general population (3.67% according to research by Miret et al., 2014). If we consider sex/gender, the percentage of FT who have had suicidal ideation is almost identical to that of MT. These results are in line with other research into suicidal thoughts in people with GD (see table 2), but are very different to data from the general population. In most countries where suicide has been studied, women exhibit higher levels of suicidal ideation and suicide attempts than men, but there are a higher number of deaths by suicide in men (Hawton, 2000).

Analysis of the suicide attempts variable shows that almost a quarter of UTIGPA clients had tried to end their lives on at least one occasion. This is almost three times the rate found in the general population (8.42% according to data collected by Statistics National Institute in Spain in 2014). The percentages are similar for both gender/sex groups: 22.68% of FT have attempted suicide at some point, compared to 25.96% of MT. These results are consistent with previous research, in which those with GD have been seen to have higher risks of suicidal behaviour and death by suicide than the general population (Asscheman et al., 2011; Dhejne et al., 2011; Sánchez et al., 2014). Although the mean age at first suicide attempt was 19.97 ($SD=8.85$), the majority ($n=16$) were under 18 years old. The most commonly used method was medication overdose.

It is well known that people with psychiatric diagnoses present a greater risk of suicide than the general population, and according to most research, depression is the main cause of both attempted suicide, and death by suicide (Hawton, Casañas, Comabella, Haw, & Saunders, 2013). This is a reasonable conclusion for patients whose principal diagnosis is depression and for those who present co-morbid depressive symptomatology, or associated with substance use. However, we did not see significant differences in our sample related to psychiatric diagnosis, either in ideation or in suicide attempts. There was a close relationship between suicidal ideation and suicide attempts. Therefore, one might suppose that in this population, suicidal ideation may be associated with an emotional process which might limit the perception of available solutions and drive a person towards a state of hopelessness, thus increasing the probability of suicide. More specifically, one of the hypotheses about which there is most consensus when it comes to explaining suicidal ideation and actual suicidal behaviour suggests the need for some stressful event which provokes certain emotions (especially frustration or rejection), the desire to escape from a situation or to communicate their problems to others,

Table 4

Methods used by UTIGPA clients in suicide attempts, in terms of sex/gender, according to the ICD-10 criteria for suicide and intentional self-harm

Method used (ICD-10 code)	FT n (%)	MT n (%)
Intentional medication overdose (X60 – X64)	9 (9.28)	5 (9.26)
Intentional overdose by other and unspecified chemicals and noxious substances (X69)	2 (2.06)	0
Suicide and intentional self-harm by hanging, strangulation and suffocation (X70)	0	3 (5.56)
Suicide and intentional self-harm by sharp object (X78)	4 (4.12)	4 (7.41)
Suicide and intentional self-harm by jumping from a high place (X80)	3 (3.09)	1 (1.85)
Suicide and intentional self-harm by crashing of motor vehicle (X82)	2 (2.06)	0
No information about the method used	2 (2.06)	1 (1.85)

Because the types of pills used in suicide attempts are unknown, the various codes for different substances, X60, X61, X62, X63, and X64 have been grouped together under X60-X64

together with the evaluation that such options are not possible, and a lack of resources to alleviate the crisis (e.g. social support). This sequence of ideas, together with the availability of methods or models of such behaviour lead to feelings of helplessness which encourage suicidal behaviours (O'Connor, & Nock, 2014; Palmer, 2007). As such, with persistent ideation being a risk factor which encourages people to engage in self-injurious, and in some cases fatal behaviour, it is essential to establish action plans to reduce ideation (Hirsch, Cohn, Rowe, & Rimmer, 2017; Irwin, Coleman, Fisher, & Marasco, 2014)

There were some general issues limiting this study. Primarily, in the absence of a non-transsexual population control group, it is impossible to draw conclusions as to whether there were differences in psychopathology and psychosocial adjustment compared to the transsexual population. On the other hand, the sample was not representative of the entire transsexual population as not all members of this population sought treatment at the Unit. Finally, it is important to note that we analysed attempted suicides, but it was not possible to evaluate whether they were suicide attempts without the apparent intention to die, or were frustrated suicides.

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