



Self-harm prevalence and ideation in a community sample of cis, trans and other youth

Catherine Butler^a (i), Richard Joiner^a, Richard Bradley^b, Mark Bowles^c, Aaron Bowes^c, Claire Russell and Veronica Roberts^a

^aDepartment of Psychology, University of Bath, Bath, UK; ^bAddaction, London, UK; ^cThe Training Effect, Ashford, Kent, UK

ABSTRACT

Background: Trans youth have been reported to have high rates of self-harm, depression and bullying, and find it difficult to seek support. However, much of this research comes from gender identity clinics; non-clinical samples and those who reject gender binaries remain under-researched.

Aims: This study investigated the experiences of a community school-based sample of Trans, identifying youth, Other, and cis-gendered adolescents in relation to their experiences of low mood, bullying, associated support, self-harm ideation and peer-related self-harm.

Methods: An online survey was completed by 8440 13–17 year olds (3625 male, 4361 female, 227 Other, and 55 Trans).

Results: Trans and Other students had significantly higher rates of self-harm ideation and peer self-harm, in comparison to cis-gendered students. These Trans and Other students reported significantly higher rates of bullying and self-reported depression and significantly less support from teachers and staff at school, in fact these students did not know where to go to access help.

Discussion: This community sample confirms findings of high rates of self-harm ideation, self-reported depression and bullying for Trans youth as previously reported in clinic-based samples. However, by accessing a community sample, the salience of the category "Other" was established for young people today. While Other and Trans identified students both struggled to find support, those who identified as Trans were more likely to have been bullied, and have experienced self-reported depression and thoughts of self-harm. Thus, those who identify as transgender represent a high-risk group that needs targeted support within schools and by statutory and nonstatutory community services. Unpacking the category of Other would be beneficial for future research, as well as exploring resilience within this group and intersecting identities such as sexuality, Autism, or experiences such as earlier abuse.

KEYWORDS

gender nonbinary; transgender; self-harm; bullying; school; support; depression

Introduction

Transgender is an umbrella term referring to a range of gender identities and expressions different to those assigned at birth. This can include those who conform to the notion of a gender binary and wish to transition from one gender to another, or those who reject this idea (e.g., genderqueer, nonbinary, etc.). Some transgender people can experience discomfort or distress relating to the discrepancy between their gender identity and that which they were assigned at birth (Marshall et al., 2016), this is referred to as gender dysphoria.

Self-harm refers to behaviors that are purposefully done to injure the self, this might be

motivated by a desire to die, or it might be without suicidal intent but to serve a different function such as emotional regulation or self-punishment (Claes & Vandereycken, 2007). Both self-harm and suicidal ideation tend to have their first onset during adolescence (Nock, 2009; Skegg, 2005) and adolescents in general have higher rates of self-harm, with 3–10% reported to have self-harmed in the previous 12 months and 9–14% over their lifetime (Kokkevi, Rotsika, Arapaki, & Richardson, 2012; Madge et al., 2011; Moran et al., 2012). It has been suggested that self-harm amongst adolescents has increased in the last 10 years (Jacobson & Gould, 2007; Whitlock, Eells, Cummings, & Purington, 2009),

with estimates as high as 13-45% over a lifetime found within one community sample (Nock, 2010). It has been established that knowing someone who self-injuries significantly increases the likelihood of self-injury (Claes, Houben, Vandereycken, Bijttebier, & Muehlenkamp, 2010; Deliberto & Nock, 2008; Muehlenkamp, Hoff, Licht, Azue, & Hasenzahl, 2008; Prinstein, Guerry, Browne, & Rancourt, 2009).

Of concern is that young people have been found to be reluctant to seek help for mental health problems (Gulliver, Griffiths, & Christensen, 2010), and young people that self-harm are less likely to seek help (Evans, Hawton, & Rodham, 2005; Michelore & Hindley, 2012). Belonging to a sexual and/or gender minority makes youth even less likely to seek help from mainstream health and school services (McDermott et al., 2013), preferring instead to seek out specialist LGBT support services (McDermott, Roen, & Scourfield, 2008).

For transgender youth who attend specialist gender identity clinics, rates of self-harm and suicide ideation are found to be higher than those reported for adolescents in the general population (28.8-41.0% for self-harm, 17.5-42.2% for suicide ideation, and 11.9-15.8% for suicide attempts; Aitken, VanderLaan, Wasserman, Stojanovski, & Zucker, 2016). This pattern of higher rates is also reflected in community settings. Clark et al. (2014) surveyed transgender youth in a school and found significantly higher rates of self-harm (46%) compared to cisgendered students (4.1%). This is echoed by Reisner et al. (2015), who surveyed youth attending a generic health center rather than a specialist gender identity clinic, where transgender youth reported higher rates than cisgendered youth of self-harm (30% vs. 8%), suicidal ideation (56% vs. 20%) and suicide attempts (31% vs. 11%).

Several authors also report differences in selfharm rates within transgender clinical populations, with transgender men/boys having higher rates of self-harm than transgender women (in line with rates for natally assigned gender) (Claes et al., 2015; Davey, Arcelus, Meyer, & Bouman, 2016; Holt, Skagerberg, & Dunsford, 2016; Rimes, Goodship, Ussher, Baker, & West, 2017; Veale, Watson, Peter, and Saewyc, 2017). Age also has an impact, with higher rates of self-harm in

transgender adolescents compared to transgender children below 12 or adults (Holt et al., 2016), consistent with age differences in self-harm in the general population (Moran, Coffey & Romaniuk, 2012). Cutting is the most common form of selfharm (Claes & Vandereycken, 2007; Skagerberg, Parkinson, & Carmichael, 2013), again reflecting patterns found in the general population (e.g., Truth Hurts, 2006), except that transgender young people report thoughts of cutting their genitals whereas arms and legs are most common in the general population (Skagerberg et al., 2013).

A variety of reasons have been proposed for the elevated rates of self-harm and suicidality in transgender adolescents. Social discrimination and bullying has a negative impact on all youth, but being attacked in the form of verbal, physical, and sexual abuse is more frequently reported in transgender youth than cisgendered youth (Grossman, D'Augelli, & Frank, 2011). McGuire, Anderson, Toomey, and Russell, (2010) found that 80% of their school sample of transgender youth report verbal abuse, which resulted in fear and distress and transgender-based discrimination was found to be a predictor of suicide attempts (Clements-Nolle, Marx, & Katz, 2006). Transgender adolescents often report feelings of loneliness, hopelessness (Sadowski & Gaffney, 1998), with associated emotional problems including depression, which is notably higher than for cisgendered peers (Connolly, Zervos, Barone, Johnson, & Joseph, 2016). In the general population depression is strongly correlated to self-harming behavior (Skegg, 2005).

According to the theory of minority stress (Meyer, 2003), external experiences of rejection and discrimination can result in internalized stress so that the person begins to expect such experiences. The theory highlights that social support (particularly with peers who are similar to allow for positive self-comparison), acceptance and integration can ameliorate minority stress, but transgender youth have been found to lack social support (Davey et al., 2014; Di Ceglie, Freedman, McPherson, & Richardson, 2002; Zucker, Lawrence & Kreukels, 2016). Poor peerrelations have been found to be the strongest predictor of behavioral and emotional problems for adolescents attending gender identity clinics

(Cohen-Kettenis, Owen, Kaijser, Bradley, Zucker, 2003; de Vries, Steensma, Cohen-Kettenis, VanderLaan, & Zucker, 2016).

In addition to the psychological challenges that can be associated with gender non-conformity during adolescence, there are also physical challenges as secondary-sex characteristics start to develop. For those attending clinics, this may be associated with distress linked to gender dysphoria, which might take the form of "shame, selfhatred, and body-distress" (McDermott, Roen, & Piela, 2015, p. 883), which can in itself trigger selfharm (Malpas, 2011; Skagerberg, Parkinson, & Carmichael, 2013; Spack et al., 2012).

No studies have compared self-harm between transgender youth who access these clinics and those that do not. That the majority of research is clinic-based excludes those who do not wish for the support of specialist clinics, those who do not have the support around them to attend, or those who cannot afford to access these services in countries where health care is not covered (Connolly et al., 2016). These findings therefore cannot be generalized to transgender people who have never attended a specialist clinic (Marshall et al., 2016). Previous research is also limited as it often does not include those who do not identify male, female or transgender, e.g. those who reject the gender binary and prefer other identity categories such as a gender or gender non-binary. There are increasing numbers of people who construct their identity this way (Kuper, Nussbaum, & Mustanski, 2012). A few recent studies report nonbinary youth have high levels of stress and hopelessness, and higher rates of self-harm, than those who identify as transgender females (Veale, Watson, Peter, & Saewyc, 2017), and higher rates of substance misuse than those with binary transgender identity (Keuroghlian, Reisner, White, & Weiss, 2015). In addition, the experiences of LGBT youth are frequently grouped together (e.g., Liu & Mustanski, 2012), however, in so doing, some unique issues for those who are transgender might be missed. Bockting, Huang, Ding, Robinson, and Rosser (2005) found higher rates of depression and lower rates of family and peer support for transgender youth than for their LGB counterparts.

It is hard to draw conclusions from some of the literature in this area because a distinction is generally not made between nonsuicidal selfharm and suicide attempts (e.g., Aitken et al., 2016). Marshall et al. (2016) call for more research accessing nonclinic participants to capture the variations in of the transgender popula-This study therefore focused on a nonclinical sample of self-identified trans and cisgendered adolescents, with the aim of investigating their experiences of low mood, bullying, associated support, peer-related self-harm and selfharm ideation.

Method

Online methods are becoming an established method of investigating youth self-harm. These have been flagged as particularly beneficial in accessing marginalized youth, including LGBT youth (Hillier & Rosenthal, 2001), and those that may belong to a geographically dispersed minority population (Rosser, Oakes, Bockting, Babes, & Miner, 2007). This method is thought to be useful in generating data directly from participants, without the filter of the participant/researcher interaction, responses are instead considered "initiated, motivated, and therefore determined by the young person themselves" (McDermott, Roen, & Piela, 2015, p. 876).

Participants

8440 students (Cornwall: 914; Kent: 6039; Lancashire: 1487) completed the screening survey. The young people were in UK academic year groups 9-13 (US equivalent second-year junior high to high school senior) and aged between 13 and 17 years. There were 3625 who identified as male; 4361 who identified as female, 55 who identified as Trans and 227 who identified as Other (i.e., who did not identify as Trans, Male, or Female).

Procedure

UK Secondary schools (US equivalent Junior High and High School) in the three areas where contacted by email inviting them to participate in

Table 1. Self-harm amongst young people you know.

	Male ¹		Fer	male ²	С	ther ³	Trans ³	
	N	%	Ν	N %		N %		%
How common is self-harm	amongst young p	people your age?	$(\chi^2 [9] = 720.2,$	p < .0005, Crame	er's V = 0.17)			
Most Don't	1207	33.3%	627	14.4%	45	19.8%	14	25.5%
A few	1732	47.8%	1970	45.2%	94	41.4%	18	32.7%
Many Do	611	16.9%	1606	36.8%	63	27.8%	11	20.0%
Most Do	75	2.1%	158	3.6%	25	11.0%	12	21.8%
Do any of your close frien	ds self-harm? (χ^2	[6] = 413.7, p < .	0005, Cramer's 1	/=0.16)				
No	2695	74.3%	2366	54.3%	94	41.4%	20	36.4%
Yes	408	11.3%	908	20.8%	62	27.3%	23	41.8%
Prefer not to say	522	14.4%	1087	24.9%	71	31.3%	12	21.8%
Have any of your close frie	ends self-harmed i	in the past but d	on't now? (χ^2 [6	= 642.7, p < 0.0	0005, Cramer's	V = 0.20)		
No	2316	63.9%	1576	36.1%	87	38.3%	22	40.0%
Yes	855	23.6%	1913	43.9%	74	32.6%	24	43.6%
Prefer not to say	454	12.5%	872	20.0%	66	29.1%	9	16.4%

Note: Column headings with post scripts that are different are significantly different (p < 0.0083 with Bonferroni correction).

the research. Once schools had opted-in to participate, an introductory assembly was delivered by a member of the research team about risk and self-harm and explaining the research project. Students from key year groups were invited to participate on a voluntary basis that day using school computers. Informed consent was obtained from all individual participants included in the study.

Survey

A bespoke online screening survey was developed by The Training Effect¹ to aid the identification of adolescents at risk of engaging in self-harm. The students were asked the following four questions on self-harm.

- 1. How common is self-harm amongst young people your age?
- 2. Do any of your close friends self-harm?
- 3. Have any of your close friends self-harmed in the past but don't now?
- 4. Do you ever think about hurting yourself?

They were also asked if they had been bullied in the last two months, how many days they felt depressed in the last month; whether they knew what help was available to them for support and whether they felt teachers and other staff provide the support they need within school and whether they would feel comfortable seeking help with any problems or concerns they were facing. These questions were developed through reviewing current literature and

through drawing on the extensive clinical experience of The Training Effect.

Data analysis

All analyses were conducted using computer statistical software SPSS Version 22 (SPSS Statistics, 2018). Chi-Squared analysis was conducted when the data was categorical and Kruskal-Wallis or Mann-Whitney was used where the data were ordinal. When multiple comparisons were made between the four groups (i.e., a total of six comparisons), we used Bonferroni corrections with a corrected p-value of 0.00833 (0.05/6). Effect sizes were measured using Cramer's V.

Results

The perceived rate of self-harm differed between the four gender groups ($\chi^2[9] = 720.2$, p < .0005, Cramer's V = 0.17). 21.8% of Trans youth and 11% of those who identified as Other answered that most young people self-harm, compared to only 2% of males and under 4% of females (Table 1). Post hoc analysis revealed that there was no difference between Trans and Other, but there were significant differences between all the other groups.

There was also a significant difference between the four groups in terms of whether any of their close friends self-harm (χ^2 [6] = 413.7, p < .0005, Cramer's V = 0.16). Table 2 shows that 11% of males, 21% of females, 27% of Other, and 42% of Trans reported that a close friend self-harms. There was no significant difference between Trans and Other, but there were significant

Table 2. Self-harm, bullying and depression.

Do you ever think about hurting yourself? (γ^2 [12] = 805.73, $p < .0005$, Cramer's	r's V = 0.20
--	--------------

	M	Male ¹		Female ²		ther ³	Trans ⁴		
1	N	%	N	%	Ν	%	N	%	
None of the time	2800	77.2%	2524	57.9%	116	51.1%	17	30.9%	
Rarely	511	14.1%	881	20.2%	30	13.2%	7	12.7%	
Some of the time	213	5.9%	592	13.6%	28	12.4%	4	7.3%	
Often	75	2.1%	264	6.1%	30	13.3%	8	14.5%	
All of the time	26	0.7%	100	2.3%	23	10.1%	19	34.5%	
Have you been bullied in	school in the pas	st 2 months?(χ^2	[6] = 81.26, p <	.0005, Cramer's	V = 0.18)				
	М	Male ¹		Female ¹		Other ²		Trans ³	
No	2915	80.4%	3464	79.4%	146	64.3%	27	49.1%	

		aie	ren	remale Other		Irans		
No	2915	80.4%	3464	79.4%	146	64.3%	27	49.1%
Yes	378	10.4%	482	11.1%	43	18.9%	22	40.0%
Don't Know	332	9.2%	415	9.5%	38	16.7%	6	16.4%
No	2915	80.4%	3464	79.4%	146	64.3%	27	49.1%
O	a barrensana darra la	£.la .l		1	202 5	00F C	0.00)	

Over the past month on how many days have you felt down, depressed or hopeless? (χ^2 [6] = 202.5, p < .0005, Cramer's V = 0.09)

No Days	M	Male '		Female ²		ther³	Trans ⁴	
	1914	52.8%	1032	23.7%	75	33%	12	21.8%
1-5 Days	1077	29.7%	1627	37.3%	51	22.5%	9	16.4%
6-11 Days	301	8.3%	700	16.1%	27	11.9%	4	7.3%
12-17 Days	153	4.2%	513	11.8%	22	9.7%	1	1.8%
18-24 Days	83	2.3%	292	6.7%	15	6.6%	5	9.1%
25 plus Days	97	2.7%	197	4.5%	37	16.3%	24	43.6%

Note: Column headings with post scripts that are different are significantly different (p < 0.0083 with Bonferroni correction).

differences between all the other groups (see Table 1). There was a similar significant difference for students' response to the question "Have any of your close friends self-harmed in the past but don't now? $(\chi^2 \ [6] = 642.7, p < .0005,$ Cramer's V = 0.20). Table 1 shows that under 13% of males, "20% of females, 33% of Other and 44% of Trans reported that a close friend self-harmed in the past but they do not any more. Post hoc analysis revealed that there was no significant difference between Trans and Other or between Trans and Female, but there were significant differences between all the other group comparisons.

Table 2 shows a significant difference between the four groups in terms of their responses to the question concerning whether students ever think about self-harm (χ^2 [12] = 805.73, p < .0005, Cramer's V = 0.20). 10% of Other and 34.5% of Trans reported that they think about self-harm all of the time, compared with 0.7% of males and 2.3% of females. Post hoc analysis revealed that there were significant differences between all pairwise comparisons of the groups.

Consistent with previous research, there was a significant difference between the four groups concerning whether any of the respondents had been bullied in the last 2 months (χ^2 [6] = 81.26, p < .0005, Cramer's V = 0.18). 10% of males and

11% of females had been bullied in the last two months compared with 17% of Other and 40% of Trans students. Post hoc analysis revealed that there was no significant difference between the males and females but there were significant differences between all the other comparisons (see Table 2). Similarly, self-reported depression was significantly higher, with 16.3% of Other and 43.6% of Trans youth reporting they felt depressed for 25 days in the past month, compared to 2.7% of male students and 4.5% of female students. There is a significant difference between the four groups in the number of days they feel depressed $(\chi^2 [15] = 1126.18, p < .0005,$ Cramer's V = 0.21). Post hoc analysis revealed that there were significant differences between all pairwise comparisons of the groups (see Table 2). There is also a significant positive relationship between how many days they feel depressed and whether they think about hurting themselves $(r_{\rm s}=0.57)$.

Furthermore, Table 3 shows there was a significant difference between the four groups to the question "Do you feel teachers and other staff provide the support you need within school?" (χ^2 [6] = 247.5, p < .0005, Cramer's V = 0.10). 40.1% of Other and 47.3% of Trans students disagreed with this statement, compared to 18% of males and 24% of females. Related to these findings, the

Table 3. Support.

	Male ¹		Fer	Female ²		Other ³		rans ³
	Ν	%	N	%	N	%	N	%
Do you feel teachers and other staff provide the support you need within school? (χ^2 [6] = 247.5, $p < .0005$, Cramer's V = 0.10)								
Strongly Disagree	164	4.5%	231	5.3%	36	15.9%	16	29.1%
Disagree	482	13.3%	810	18.6%	55	24.2%	10	18.2%
Neither agree nor disagree	1118	30.8%	1526	35.0%	77	33.9%	12	21.8%
Agree	1575	43.4%	1600	36.7%	50	22.0%	15	27.3%
Strongly Agree	286	7.9%	194	4.4%	9	4.0%	2	3.6%
If you needed support with any problems	or concerns y	ou were facing	would you be	happy to seek	help? (χ^2 [6	[5] = 202.5, p <	.0005, Cram	er's $V = 0.09$)
Definitely	473	13.0%	398	9.1%	18	7.9%	6	10.9%
Probably	1252	34.5%	1185	27.2%	39	17.2%	12	21.8%
Possibly	1397	38.5%	2000	45.9%	89	39.2%	14	25.5%
Don't think there is help	278	7.7%	469	10.8%	48	21.1%	13	23.6%
Don't know what help there is	225	6.2%	309	7.1%	33	14.5%	10	18.2%

Note: Column headings with post scripts that are different are significantly different (p < 0.0083 with Bonferroni correction).

students are asked if they needed support with any problems or concerns they were facing would they be happy to seek help? (Table 3). Post hoc analysis revealed that there was no significant difference between the Trans and the other groups, but there was between all other groups.

Table 3 shows the four groups significantly differed concerning knowing where to go to access help or knowing what help there is (χ^2) [6] = 202.5, p < .0005, Cramer's V = 0.09). Other and Trans youth were significantly more likely to say they do not know where to go to access help or that they do not know what help there is. Post hoc analysis revealed that there was no significant difference between the Trans and the other groups, but there was between all other groups.

Discussion

This study is important for two reasons—it uses a community sample that confirms many of the findings previously reported with transgender youth who attend clinics; but also, significantly more participants in our sample identified as "Other" (n = 227) rather than "Trans" (n = 55). We will discuss these points in term, relating the findings for both those who identify as "Other" and those as "Trans" to previous research.

findings clearly confirm previous research that self-harm ideation and perceived peer self-harm is significantly higher in transgender youth populations. Nock (2010) found high rates of self-harm for adolescents in his community sample (13-45%), but did not collect demographics on the gender identity of those who participated so it is impossible to tell if

some groups within this sample had higher rates than others. Like Nock, we do not know the gender identity of the close friends who were selfharming. Grard et al.'s (2018) research of 11,000 adolescents indicates that for both girls and boys the majority of their friendships are same-sex, although girls are more likely to have same-sex friendship (86.8%) than boys (78.8%). We therefore suggest that our data are in line with other research that reports higher rates of self-harm in females (e.g., McManus, Beddington, Jenkins, & Brugha, 2016), with 14.2% of females compared to 6.4% of males having a close friend who selfharmed. Our sample found 21.3% of all adolescents who responded had a close friend their own age who self-harmed—without participants who identified as Trans or Other, this rate remains high at 20.6%.

Rates of self-harm for adolescents attending a gender identity clinic (28.8-41.0%; Aitken et al., 2016) were similar to those within the community sample in this study, with 34.5% of those who identified as transgender reporting that they thought about harming themselves all the time. Similarly, of those who did not identify as Male, Female, or Trans, but as "Other," 35.7% also reported frequently thinking about harming themselves (some of the time 12.4%; often 13.3%; all of the time 10.1%). These results echo those of Clark et al. (2014), where 46% of transgender school students in their sample reported selfharming, compared to only 4.1% of cis-gendered students.

Skegg (2005) found a strong correlation between self-harm and depression, and our research confirms previous clinic-based research (e.g., Connolly et al., 2006) that there are higher rates of depression for transgender youth than for cisgendered peers, with 43.6% of Trans youth and 16.3% of Other youth self-reporting depression for more than 25 days previously, compared to 2.7% of males and 4.5% of females. Similarly, Grossman et al. (2011) report higher rates of verbal, physical, and sexual abuse for transgender youth when compared to cisgendered youth, and our study echoed this with 40.0% of Trans youth and 16.7% of Other youth reporting bullying, compared to 10.4% of males and 11.1% of females. These poor peer-relationships might be a strong factor in the high rates of self-harm reported in this study, similar to previous findings (Cohen-Kettenis, Owen, Kaijser, Bradley, & Zucker, 2003; de Vries, Steensma, Cohen-Kettenis, VanderLaan, & Zucker, 2016).

When it comes to seeking support for these issues, previous research (e.g. Zucker, Lawrence & Kreukels, 2016) found that transgender youth lacked social support. Our research confirms this, with 40.1% of Other and 47.3% of Trans students reporting that school staff do not currently provide the support they need (compared to 18% of males and 24% of females), but of concern is that these students also did not know where to go to access support (18.2% Trans and 14.5% Other, compared to 6.2% males and 7.1% females), with 23.6% of Trans students and 21.1% of Other students not believing that any help actually exists (compared to 7.7% of males and 10.8% of females). McDermott et al. (2013) report sexual and gender minority youth prefer to access support from specialist organizations, but Connolly et al. (2016) highlighted the financial costs of travel associated of accessing specialist clinics. It is of note that in all the areas where our data was collected, transgender youth and their families would have had to travel if accessing specialist gender clinics was important to them.

What is particularly interesting in our sample, is the high number of participants who did not identify as "Trans" (n = 55), with 227 identifying as "Other." By identifying as "Other" rather than "Trans," these students may not fit the population profile of youth that access gender identity clinics, upon which the majority of transgenderrelated research is based. Accessing a community

sample thus allowed us to discover how much more significant the category of Other is to young people today. Students who identified as Other rather than Trans still had significantly higher rates of bullying, self-reported depression and perceived self-harm in peers compared to their cis-gendered peers, but these rates were lower than for students who identified as Trans. However, both groups equally struggled to find support for these issues.

Limitations and future research

While this research has highlighted important information from a community sample, there are a number of areas where further investigation is needed to provide greater understanding. Given how many more students identified as Other than as Trans, it would have been useful to have a free-text box to enter their gender identity in order to understand the make-up of this category. Given the self-report nature of online data collection, it could be argued that there are validity concerns, i.e., does everyone who said they were Trans or Other actually identify as Trans or Other in all aspects of everyday life, or does it serve more as an internally held identity? In addition, transgender youth could have chosen the Trans, Male, or Female option depending on their preferred identity label. It would have been better to ask for gender assigned at birth and current gender identity. It would also have been interesting to break the Trans category down into Trans male and Trans female in order to compare any differences between these groups.

Whether students actually self-harmed was not asked, neither were the types of self-harm. This was deliberate because in asking the question as to whether they were self-harming, the research team would have felt ethically obligated to have followed up with participant's wider support networks, which might have impacted on the candor with which participants answered questions. As it is established that knowing someone who self-harms is a risk factor (Claes, Houben, Vandereycken, Bijttebier, & Muehlenkamp, 2010; Deliberto & Nock, 2008; Muehlenkamp, Hoff, Licht, Azue, & Hasenzahl, 2009; Prinstein et al., 2009), if particiabove a threshold scored pants

questionnaire, they were offered access to a program called "Mind and Body" run by The Training Effect. This program is a targeted prevention and early intervention program for young people who engage in risk-taking behaviors that are associated with self-harm. In addition, in working closely with participating schools, the research results were shared to promote the need for established local support for these young people. For future research, if direct self-harm is asked about, Skagerberg, Parkinson, and Carmichael (2013) suggest that standardized measures of self-harm should be used to explore different types.

The triggers to self-harm were also not asked about, and so we are unable to explore if findings from clinic-based populations could be generalized to ours. The psychological and physical triggers resulting from discrimination, prejudice and gender dysphoria in clinical populations are discussed in the introduction. However, in these populations, many young people have intersecting difficulties that could in themselves result in higher rates of self-harm. Many would meet the criteria for an Autism Spectrum Condition (ASC) (Glidden, Bouman, Jones, & Arcelus, 2016), with rates as high as 48% recently reported for those whose parents completed the Social Responsiveness Scale (Clarke & Spiliadis, 2019). Young people with an ASC have been found to have higher than average rates of self-harm (Minshawi, Hurwitz, Fodstad, Biebl, Morriss, & McDougle, 2014). In addition, a high proportion of young people who attend clinics with signs of gender dysphoria later identify as lesbian, gay, or bisexual (LGB) in adulthood and no longer seek any medical interventions (Ristori & Steensma, 2016). Again, self-harm is more common in youth who identify as LGB (Batejan, Jarvi, & Swenson, 2015). Finally, higher rates of physical and sexual abuse have also been reported in transgender populations (e.g., Kussin-Shoptaw, Fletcher, & Reback, 2017), and self-harm is more frequent in those who have experienced prior abuse (Yates, 2004). These intersecting identities have yet to be explored in nonclinical transgender populations. Finally, while this study asked about self-reported depression, other forms of distress reported by previous studies were not asked about (e.g., anxiety-Bockting, Miner, Swinburne Romine, Hamilton, and Coleman et al. (2013); substance abuse—Olson

et al., 2015; etc.), and use of an established measure of mood would be of benefit.

Implications

This study confirms high levels of bullying, selfreported depression and self-harm ideation for transgender youth, with a lack of social support to help them cope. Within the current sample of transgender youth, there were significantly higher numbers of those who identified as Other than as Trans. It is therefore essential that all professionals working with young people (whether based in clinical settings or community settings such as school) remain open and curious about a wide range of gender identities and presentations. Students that identified either as Trans or Other had difficulty accessing social support and we recommend professionals to make approaches to offering this, and ensure that the support they can offer is what is needed. Given the high rates of self-harm reported in transgender populations, all professionals should be alert to this and clinicians should thoroughly assess for self-harming behavior, especially as children enter puberty, and any relevant child protection measures should be put in place. Transgender youth may need help building support networks and developing alternative coping strategies.

In addition to individual work, work on an institutional and societal level that combats discrimination and prejudice is called for. This requires a co-ordinated multi-agency approach (e.g., with schools, general practitioners, Child and Adolescent Mental Health Services and specialist gender identity services). In addition, national policies are needed that identify transgender youth as at high risk of self-harm and strategies should be developed to promote acceptance in wider society and a positive mental health for transgender youth.

Conclusions

This is an important study in accessing the views of students in a community sample. The high proportion of students who identify as Other rather than Male, Female, or Trans is significant,



as well as the high rates of bullying, self-reported depression and self-harm ideation in Other and Trans youth. Of concern is that these young people feel that help is not available and do not know where to access it. There is therefore work to be done for future researchers to further understand the complexities of transgender youths' lives and for those who work with them in community and clinical settings in providing accessible help that meets their needs.

Note

1. Training Effect provide a range of services to the public, private and third sector, including training, facilitation, research, consultancy, and business development. They have specific expertise in the areas of substance misuse, risk-taking behaviours, families with complex needs, mental and emotional health, poverty, CSE and child and youth services.

ORCID

Catherine Butler http://orcid.org/0000-0002-3788-4466

References

- Aitken, M., VanderLaan, D. P., Wasserman, L., Stojanovski, S., & Zucker, K. J. (2016). Self-harm and suicidality in children referred for gender dysphoria. Journal of the American Academy of Child & Adolescent Psychiatry, 55 (6), 513-520. doi:10.1016/j.jaac.2016.04.001
- Alder, P., & Alder, P. (2011). The tender cut. New York, NY: NYU Press
- Baker, D., & Fortune, S. (2008). Understanding self-harm and suicide websites - a qualitative interview study of young adult website users. Crisis - the Journal of Crisis Intervention and Suicide Prevention, 29 (3), 118-122. doi: 10.1027/0227-5910.29.3.118
- Batejan, K. L., Jarvi, S. M., & Swenson, L. P. (2015). Sexual orientation and non-suicidal self-injury: A meta-analytic review. Archives of Suicide Research, 19(2), 131-150. doi: 10.1080/13811118.2014.957450
- Brennan, J., Kuhns, L. M., Johnson, A. K., Belzer, M., Wilson, E. C., & Garofalo, R. (2012). Syndemic theory and HIV-related risk among young transgender women: The role of multiple, co-occurring health problems and social marginalization. American Journal of Public Health, 102(9), 1751-1757. doi:10.2105/AJPH.2011.300433
- Bockting, W. O., Huang, C. Y., Ding, H., Robinson, B., & Rosser, B. R. S. (2005). Are transgender persons at higher risk for HIV than other sexual minorities? A comparison of HIV prevalence and risk. International Journal of Trangenderism, 8 (2/3), 123-131. doi:10.1300/J485v08n02_11

- Bockting, W. O., Miner, M. H., Swinburne Romine, R. E., Hamilton, A., & Coleman, E. (2013). Stigma, mental health, and resilience in an online sample of the US transgender population. American Journal of Public Health, 103 (5), 943-951. doi:10.2105/AJPH.2013.301241
- Claes, L., Bouman, W. P., Witcomb, G., Thurston, M., Fernandez-Aranda, F., & Arcelus, J. (2015). Non-suicidal self-injury in trans people: associations with psychological symptoms, victimization, interpersonal functioning, and perceived social support. Journal of Sexual Medicine, 12(1), 168–179. doi:10.1111/jsm.12711
- Claes, L., Houben, A., Vandereycken, W., Bijttebier, P., & Muehlenkamp, J. (2010). The association between non-suicidal self-injury, self-concept and acquaintance with self-injurious peers in a sample of adolescents. Journal of Adolescence, 33(5), 775–778. doi:10.1016/j.adolescence.2009.10.012
- Claes, L., & Vandereycken, W. (2007). Self-injurious behaviour: Differential diagnosis and functional differentiation. Comprehensive Psychiatry, 48(2), 137-144. doi:10.1016/ j.comppsych.2006.10.009
- Clark, T. C., Lucassen, M. F. G., Bullen, P., Denny, S. J., Fleming, T. M., Robinson, E. M., & Rossen, F. V. (2014). The health and well-being of transgender high school students: Results from the New Zealand adolescent health survey. Adolescent Health, 55(1), 93-99. doi:10.1016/ j.jadohealth.2013.11.008
- Clarke, A. C., & Spiliadis, A. (2019). 'Taking the lid off the box': The value of extended clinical assessment for adolescents presenting with gender identity difficulties. Clinical Child Psychology and Psychiatry, OnLine First doi:10.1177/1359104518825288
- Clements-Nolle, K., Marx, R., & Katz, M. (2006). Attempted suicide among transgender persons: The influence of gender-based discrimination and victimisation. Journal of Homosexuality, 51(3), 53-69. doi:10.1300/J082v51n03_04
- Cohen, L., de Ruiter, C., Ringelberg, H., & Cohen-Kettenis, P. T. (1997). Psychological functioning of adolescent transsexuals: Personality and psychopathology. Journal of Clinical Psychology, 53(2), 187-196. doi:10.1002/(SICI)1097-4679(199702)53:2<187::AID-JCLP12>3.0.CO;2-G
- Cohen- Kettenis, P. T., Owen, A., Kaijser, V. G., Bradley, S. J., & Zucker, K. J. (2003). Demographic characteristics, social competence, and behavior problems in children with gender identity disorder: A cross-national, crossclinic comparative analysis. Journal of Abnormal Child Psychology, 31(1), 41-53.
- Connolly, M. D., Zervos, M. J., Barone, C. J., Johnson, C. C., & Joseph, C. L. M. (2016). The mental health of transgender youth: Advances in understanding. Journal of Adolescent Health, 59(5), 489-495. doi:10.1016/ j.jadohealth.2016.06.012
- de Vries, A. L. C., Steensma, T. D., Cohen-Kettenis, P. T., VanderLaan, D. P., & Zucker, K. J. (2016). Poor peer relations predict parent- and self-reported behavioral and emotional problems of adolescents with gender dysphoria: A cross-national, cross-clinic comparative

- analysis. European Child & Adolescent Psychiatry, 25(6), 579-588. doi:10.1007/s00787-015-0764-7
- Davey, A., Bouman, W. P., Arcelus, J., & Meyer, C. (2014). Social support and psychological wellbeing: A comparison of patients with gender dysphoria and matched controls. Journal of Sexual Medicine, 11 (12), 2976-2985.
- Davey, A., Arcelus, J., Meyer, C., & Bouman, W. P. (2016). Self-injury among trans individuals and matched controls: Prevalence and associated factors. Health & Social Care in the Community, 24 (4), 485-494. doi:10.1111/ hsc.12239
- Deliberto, T. L., & Nock, M. K. (2008). An exploratory study of correlates, onset, and offset of non-suicidal selfinjury. Archives of Suicide Research: Official Journal of the International Academy for Suicide Research, 12(3), 219-231. doi:10.1080/13811110802101096
- Di Ceglie, D., Freedman, D., McPherson, S., & Richardson, P. (2002). Children and adolescents referred to a specialist gender identity development service: clinical features and demographic characteristics. The International Journal of Transgenderism, 6 (1)
- Evans, E., Hawton, K., & Rodham, K. (2005). In what ways are adolescents who engage in self-harm or experience thoughts of self-harm different in terms of help-seeking, communication and coping strategies?. Journal of Adolescence, 28(4), 573-587. doi:10.1016/j.adolescence.2004.11.001
- Glidden, D., Bouman, W. P., Jones, B. A., & Arcelus, J. (2016). Gender dysphoria and autism spectrum disorder: A systematic review of the literature. Sexual Medicine Reviews, 4(1), 3-14. doi:10.1016/j.sxmr.2015.10.003
- Grant, J. M., Mottet, L. A., Tanis, J., Herman, J. L., Harrison, J., & Keisling, M. (2011). Injustice at every report on the National Transgender Discrimination Survey. Washington DC: National Centre for Transgender Equality and National Gay and Lesbian Trask Force
- Grard, A., Kunst, A., Kuipers, M., Richter, M., Rimpela, A., Federico, B., & Lorant, V. (2018). Same-sex friendship, school gender composition, and substance use: A social network study of 50 European schools. Substance Use & Misuse, 53(6), 998-1007. doi:10.1080/10826084.2017.1392976
- Grossman, A. H., & D'Augelli, A. R. (2007). Transgender youth and life-threatening behaviors. Suicide and Life-Threatening Behavior, 37(5), 527-537. doi:10.1521/ suli.2007.37.5.527
- Grossman, A. H., D'Augelli, A. R., & Frank, J. A. (2011). Aspects of psychological resilience among transgender youth. Journal of LGBT Youth, 8(2), 103-115. doi: 10.1080/19361653.2011.541347
- Gulliver, A., Griffiths, K. M., & Christensen, H. (2010). Perceived barriers and facilitators to mental health helpseeking in young people: A systematic review. BMC Psychiatry, 10, 113.
- Hendricks, M. L., & Testa, R. J. (2012). A conceptual framework for clinical work with transgender and gender nonconforming clients: An adaptation of the Minority Stress

- Model. Professional Psychology: Research and Practice, 43(5), 460-467. doi:10.1037/a0029597
- Hillier, L., & Rosenthal, D. (2001). Special issue on gay, lesbian and bisexual youth. Journal of Adolescence, 24(1),
- Holt, V., Skagerberg, E., & Dunsford, M. (2016). Young people with features of gender dysphoria: Demographics and associated difficulties. Clinical Child Psychology and Psychiatry, 164, 108-118. doi:10.1177/1359104514558431
- Jacobson, C. M., & Gould, M. (2007). The epidemiology and phenomenology of non-suicidal self-injurious behaviour among adolescents: A critical review of the literature. Archives of Suicidal Research, 11 (2), 129-147. doi: 10.1080/13811110701247602
- Johansson, A., Sundbom, E., Höjerback, T., & Bodlund, O. (2010). A five-year follow-up study of Swedish adults with gender identity disorder. Archives of Sexual Behavior, 39(6), 1429-1437. doi:10.1007/s10508-009-9551-1
- Kenagy, G. P. (2005). Transgender health: findings from two needs assessment studies in Philadelphia. Health & Social Work, 30, 19-26. doi:10.1093/hsw/30.1.19
- Keuroghlian, A., Reisner, S. L., White, J. M., & Weiss, R. D. (2015). Substance use and treatment of substance use disorder in a community sample of transgender adults. Drug and Alcohol Dependence, 152, 139-146. doi:10.1016/ j.drugalcdep.2015.04.008
- Kokkevi, A., Rotsika, V., Arapaki, A., & Richardson, C. (2012). Adolescents' self-reported suicide attempts, selfharm thoughts and their correlates across 17 European countries. Journal of Child Psychology and Psychiatry, 53(4), 381-389. doi:10.1111/j.1469-7610.2011.02457.x
- Kuper, L. E., Nussbaum, R., & Mustanski, B. (2012). Exploring the diversity of gender and sexual orientation identities in an online sample of transgender individuals. The Journal of Sex Research, 49 (2-3), 244-254. doi: 10.1080/00224499.2011.596954
- Kussin-Shoptaw, A. L., Fletcher, J. B., & Reback, C. J. (2017). Physical and/or sexual abuse is associated with increased psychological and emotional distress among transgender women. LGBT Health, 4(4), 268-274. doi: 10.1089/lgbt.2016.0186
- Liu, R. T., & Mustanski, B. (2012). Suicidal ideation and self-harm in lesbian, gay, bisexual and transgender youth. American Journal of Preventative Medicine, 42(3), 221-228. doi:10.1016/j.amepre.2011.10.023
- Madge, N., Hawton, K., McMahon, E. M., Corcoran, P., De Leo, D., de Wilde, E. J., ... Arensman, E. (2011). Psychological characteristics, stressful life events and deliberate self-harm: Findings from the Child and Adolescent Self-harm in Europe (CASE) study. European Child & Adolescent Psychiatry, 20(10), 499-508. doi: 10.1007/s00787-011-0210-4
- Malpas, J. (2011). Between pink and blue: A multi-dimensional family approach to gender nonconforming children and their families. Family Process, 50(4), 453-470. doi: 10.1111/j.1545-5300.2011.01371.x

- Marshall, E., Claes, L., Bouman, W. P., Witcomb, G. L., & Arcelus, J. (2016). Non-suicidal self-injury and suicidality in trans people: A systematic review of the literature. International Review of Psychiatry, 28 (1), 58-69. doi: 10.3109/09540261.2015.1073143
- McDermott, E., Roen, K., & Piela, A. (2015). Explaining self-harm: Youth cybertalk and marginalised sexualities and genders. Youth and Society, 47 (6), 873-889. doi: 10.1177/0044118X13489142
- McDermott, E., Roen, K., & Scourfield, J. (2008). Avoiding shame: Young LGBT people, homophobia and selfdestructive behaviours. Culture, Health & Sexuality, 10, 815-829. doi:10.1080/13691050802380974
- McGuire, J. K., Anderson, C. R., Toomey, R. B., & Russell, S. T. (2010). School climate for transgender youth: A mixed method investigation of student experiences and school responses. Journal of Youth and Adolescence, 39(10), 1175–1188. doi:10.1007/s10964-010-9540-7
- McManus, S., Beddinton, P., Jenkins, R. & Brugha, T. (eds) (2016). Mental health and wellbeing in England: Adult Psychiatric Morbidity Survey 2014. Leeds: NHS Digital
- Meyer, I. H. (2003). Prejudice, social stress, and mental health in lesbian, gay, and bisexual populations: conceptual issues and research evidence. Psychological Bulletin, 129(5), 674-697. doi:10.1037/0033-2909.129.5.674
- Michelore, L., & Hindley, P. (2012). Help-seeking for suicidal thoughts and self-harm in young people: A systematic review. Suicide and Life-Threatening Behavior, 42 (5), 507-524. doi:10.1111/j.1943-278X.2012.00108.x
- Minshawi, N. F., Hurwitz, S., Fodstad, J. C., Biebl, S., Morriss, D. H., & McDougle, C. J. (2014). The association between self-injurious behaviors and autism spectrum disorders. Psychology Research and Behavior Management, 7, 125-136.
- Moran, P., Coffey, C., Romaniuk, H., Olsson, C., Borschmann, R., Carlin, J. B., & Patton, G. C. (2012). The natural history of self-harm from adolescence to young adulthood: a population-based cohort study. The 379(9812), 236-243. doi:10.1016/S0140-Lancet, 6736(11)61141-0
- Moran, P., Coffey, C., & Romaniuk, H. (2012). The natural history of self-harm from adolescence to young adulthood: A population-based cohort study. The Lancet, 39, 236-243. doi:10.1016/S0140-6736(11)61141-0
- Muehlenkamp, J. J., Hoff, E. R., Licht, J.-G., Azure, J. A., & Hasenzahl, S. J. (2008). Rates of non-suicidal self-injury: A cross-sectional analysis of exposure. Current Psychology, 27(4), 234-241. doi:10.1007/s12144-008-9036-8
- Murad, M. H., Elamin, E. B., Garcia, M. Z., Mullan, R. J., Murad, A., Erwin, P. J., & Montori, V. M. (2010). Hormonal therapy and sex reassignment: A systematic review and meta-analysis of quality of life and psychosocial outcomes. Clinical Endocrinology, 72(2), 214-231. doi:10.1111/j.1365-2265.2009.03625.x
- Nock, M. K. (2010). Self-injury. Annual Review of Clinical Psychology, 6, 339-363. doi:10.1146/annurev. clinpsy.121208.131258

- Nock, M. K. (2009). Who do people hurt themselves? New insights into the nature and functions of self-injury. Current Directions in Psychological Science, 18 (2), 78-83. doi:10.1111/j.1467-8721.2009.01613.x
- Olson, J., Schrager, S., Belzer, M., Simons, L., & Clark, L. (2015). Baseline physiologic and psychosocial characteristics of transgender youth seeking care for gender dysphoria. Journal of Adolescent Health, 57 (4), 374-380. doi:10.1016/j.jadohealth.2015.04.027
- Prinstein, M. J., Guerry, J. D., Browne, C. B., & Rancourt, D. (2009). Interpersonal models of non-suicidal selfinjury. In M. Nock (Ed.), Understanding nonsuicidal selfinjury: Origins, assessment and treatment. Washington, DC: American Psychological Association
- Reisner, S. L., Vetters, R., Leclerc, M., Zaslow, S., Wolfrum, S., Shumer, D., ... Imiaga, M. J., et. Al. (2015). Mental health of transgender youth in care at an adolescent urban community health centre: A matched retrospective cohort study. Journal of Adolescent Health, 56(3), 274-279. doi:10.1016/j.jadohealth.2014.10.264
- Ristori, J., & Steensma, T. D. (2016). Gender dysphoria in childhood. International Review of Psychiatry, 28 (1), 13 - 20.
- Rimes, K. A., Goodship, N., Ussher, G., Baker, D., & West, E. (2017). Non-binary and binary transgender youth: Comparison of mental health, self-harm, suicidality, substance use and victimization experiences. International Journal of Transgenderism, 1. Retrieved February 2018, from: https://www.tandfonline.com/doi/full/10.1080/1553273 9.2017.1370627 doi:10.1080/15532739.2017.1370627
- Rodham, K., Gavin, J., & Miles, M. (2007). I hear, I listen and I care: A qualitative investigation into the function of a self-harm message board. Suicide and Life-Threatening Behavior, 37(4), 422–430. doi:10.1521/suli.2007.37.4.422
- Rosser, B. R. S., Oakes, J. M., Bockting, W. O., Babes, G., & Miner, M. (2007). Capturing the social demographics of hidden sexual minorities: An internet study of the transgender population in the United States. Sexuality Research and Social Policy, 4 (2), 50-64. doi:10.1525/ srsp.2007.4.2.50
- Sadowski, H., & Gaffney, B. (1998). Gender identity disorder, depression, and suicide risk. In D. Di Ceglie & D. Freedman (Eds.), A stranger in my own body: atypical gender identity development and mental health. London: Karnac Books
- Skegg, K. (2005). Self-harm. Lancet (London, England)), 366 (9495), 1471-1483. doi:10.1016/S0140-6736(05)67600-3
- Skagerberg, E., Parkinson, R., & Carmichael, P. (2013). Selfharming thoughts and behaviors in a group of children and adolescents with gender dysphoria. International Journal of Transgenderism, 14(2), 86-92. doi:10.1080/ 15532739.2013.817321
- Spack, N. P., Edwards-Leeper, L., Feldman, H. A., Leibowitz, S., Mandel, F., Diamond, D. A., & Vance, S. R. (2012). Children and adolescents with gender identity disorder referred to a pediatric medical centre. Pediatrics, 129(3), 418-425. doi:10.1542/peds.2011-0907



- Truth Hurts (2006). Report of the National inquiry into self harm among young people. Retrieved from http://mentalhealth.org.uk/content/assets/PDF.publications/truth.hurts.pdf (cited in Skagerberg, Parkinson & Carmichael, 2013)
- Veale, J. F., Watson, R. J., Peter, T., & Saewyc, E. M. (2017). Mental health disparities among Canadian transgender youth. Journal of Adolescent Mental Health, 60(1), 44-49. doi:10.1016/j.jadohealth.2016.09.014
- Whitlock, J. L., Eells, G., Cummings, N., & Purington, A. (2009). Nonsuicidal self-injury in college populations: mental health provider assessment of prevalence and need. Journal of College Student Psychotherapy, 23 (3), 172-183. doi:10.1080/87568220902794366
- Whitlock, J. L., Powers, J. L., & Eckenrode, J. (2006). The virtual cutting edge: The internet and adolescent self-

- injury. Developmental Psychology, 42(3), 407-417. doi: 10.1037/0012-1649.42.3.407
- Wilson, E. C., Chen, Y.-H., & Arayasirikul, S. (2015). Differential HIV risk for racial/ethnic minority trans*female youths and socioeconomic disparities in housing, residential stability and education. American Journal of Public Health, 105 (3), 41-47.
- Yates, T. M. (2004). The developmental psychopathology of self-injurious behavior: compensatory regulation in posttraumatic adaptation. Clinical Psychology Review, 24(1), 35-74. doi:10.1016/j.cpr.2003.10.001
- Zucker, K. J., Lawrence, A. A., & Kreukels, B. P. C. (2016). Gender dysphoria in adults. Annual Review of Clinical Psychology, 12, 217-247. doi:10.1146/annurev-clinpsy-021815-093034