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Cross-Sex Hormone Use, Functional Health and Mental Well-Being among Transgender Men (*Toms*) and Transgender Women (*Kathoeys*) in Thailand

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Abstract

There exists limited understanding of cross-sex hormone use and mental well-being among transgender women and, particularly, among transgender men. Moreover, most studies of transgender people have taken place in the Global North and often in the context of HIV. This exploratory study compared 60 transgender men (*toms*) with 60 transgender women (*kathoeys*) regarding their use of cross-sex hormones, mental well-being and acceptance by their family. Participants also completed a dispositional optimism scale (Life Orientation Test Revised; LOT-R), the Social Functioning Questionnaire (SFQ) and the Short Form Health Survey 36 (SF-36) assessing the profile of functional health and mental well-being. Cross-sex hormones were used by 35% of *toms* and 73% of *kathoeys* and were largely unsupervised by health-related personnel. There were no differences in functional health and mental well-being among *toms* and *kathoeys*. However, *toms* currently using cross-sex hormones scored on average poorer on bodily pain and mental health, compared to non-users. Further, compared to non-users, cross-sex hormone users were about 8 times and 5 times more likely to be associated with poor parental acceptance among *toms* and *kathoeys*, respectively. This study was the first to compare cross-sex hormone use, functional health and mental well-being among transgender women and transgender men in Southeast Asia.

Keywords

Transgender; mental health; cross-sex hormones; young people; Thailand

Introduction

Currently, there exists limited knowledge concerning the health of transgender populations worldwide (Institute of Medicine 2011). Existing research tends to be clinic-based case studies on various surgical procedures and is usually from the Global North. Non-surgical

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studies tend to be focused on HIV prevalence and risks, and among transgender women (male-to-female transgender people) (Baral et al. 2013; Guadamuz et al. 2011a; Guadamuz et al. 2011b). There is scarce information on other health issues among transgender people, particularly transgender men (female-to-male transgender people) (Reisner et al. 2013) in the Global South (Asia Pacific Transgender Network and World Health Organization 2013). Because transgender people want to transition their bodies to be more congruent with their identities, they often use transitional technologies such as cross-sex hormones and undergo various types of surgeries (Winter 2012). However, little is known of the social, psychological, and functional contexts related to the use of these transitional technologies.

There are almost no studies that compare the socio-demographic contexts, transitional technologies and general health between transgender men and transgender women. One study (Kockott and Fahrner 1988) found that these two groups significantly differed with respect to their social and sexual relationships and sexual behaviours, independent of sexual reassignment surgery (SRS). For example, transgender men more often had close ties to their parents and siblings, established stable partnerships, and were more satisfied sexually. When they first consulted a physician about SRS, they were already more integrated socially. The reasons for the relational differences remain unclear. Among several studies conducted at the Amsterdam Gender Clinic, transgender men tended to start medical treatment on average five years earlier than transgender women (Van Kesteren et al. 1997). Moreover, their suicide rates were much lower than transgender women (Asscheman et al. 2011).

In Thailand, transgender women, known locally as *kathoeys*, have unique social and cultural roles in Thai society dating back to old Siam (Jackson 2000, 2003, 2013). The term *kathoeys* actually is much broader than its Western equivalent and include all non-gender normative men, regardless of their transitional experiences (Boonmongkon and Jackson 2012). Despite this, however, many *kathoeys* in Thailand are merely tolerated but not fully accepted in Thai society (Jackson 1999; Winter 2011) and subsequently, many seek social acceptance through beauty (Panoopat, Boonmongkon, and Guadamuz, 2014). While *kathoeys* are highly visible in Thai society, much less is known about transgender men, locally known as *toms* (borrowed from the English “tomboys”). *Toms* have been previously studied by the anthropologist Megan Sinnott (Sinnott 2000; Sinnott 2004). In her view, *toms* are masculine persons who express their masculinity in their personality, clothing, and their sexual attractions to females. While Sinnott extensively studied the meaning of being *toms* and the social and cultural contexts that relate to this gender identity in Thai society, less is known of the use of transitional technologies and general health and well-being of *toms* in Thailand. Specifically, there has not been a quantitative study of *toms* in Thailand that addresses cross-sex hormone use and health. This paper aims to compare differences in socio-demographic characteristics, cross-sex hormone use and general health and well-being by using data from two observational studies, one on transgender women (Gooren et al. 2013) and one on transgender men residing in the city of Chiang Mai, Thailand.

Methods

Recruitment

Interviews with transgender participants were conducted by one of the authors (TS), a native Thai speaker in Chiang Mai city, a major social, cultural and economic centre of Northern Thailand. *Toms* were recruited by snowball technique, where they were approached in public places around Chiang Mai University and asked if they were willing to complete a questionnaire. They were asked to refer or provide introductions to their *tom* friends. Five of 65 *toms* approached declined to participate (8%). The study was voluntary, anonymous and participants were compensated 200 baht (US\$ 7) for their time and travel. Sixty *toms* gave verbal informed consent and completed the questionnaire. *kathoeys* were recruited in a similar way and the details of the recruitment methods have been reported in a previous study (Gooren et al. 2013). Data from *kathoeys* in that study were used to compare with *toms* in this study. All participants gave informed consent. The study was reviewed and approved by the ethical review board of the University Medical Center in Amsterdam, the Netherlands.

Measures

In a self-designed questionnaire, described previously (Gooren et al. 2013), participants were asked about initial age they felt that their gender is different than what was assigned to them at birth, cross-sex hormone use, obtainment of hormones, and whether they were satisfied/dissatisfied with the resulting effects of hormone use. Participants were also asked whether they had noted side effects from the use of hormones, whether they desired to undergo SRS, and whether they were seriously considering such surgery. Other questions included self-acceptance and acceptance from their family and friends. Further, participants were asked whether there were any transgender or homosexual persons in their family. Functional health and mental well-being was also assessed with the Life Orientation Test Revised (LOT-R), Social Functioning Questionnaire (SFQ) and the Short Form Health Survey 36 (SF-36). Dispositional optimism was assessed using the Life Orientation Test Revised (LOT-R) (Scheier et al. 1994), a 10-item self-reporting scale. The LOT-R total score ranges from 0 through 24, with higher scores being indicative for a higher level of optimism. This scale had been used in previous studies in Thailand (Gooren, Sungkaew, and Giltay 2013; Wisessathorn, Chanuantong, and Fisher 2013). The Social Functioning Questionnaire (SFQ) is an 8-item self-reporting scale developed from the Social Functioning Schedule (Tyrer et al. 2005). The SFQ total score ranges from 0 through 24, with summed scores of 10 or more being indicative of a poorer perceived social functioning. This has also been used in a previous study of *kathoeys* (Gooren, Sungkaew, and Giltay 2013). The SF-36 is a generic measure of different aspects of functional health and mental well-being, derived from the Rand Medical Outcome Study (Ware et al. 1993). It is a 36-item self-reporting scale encompassing eight dimensions: bodily pain, role limitations due to physical health problems (role-physical), physical functioning, social functioning, general mental health (mental health), role limitations because of emotional problems (role-emotional), vitality, and general health perceptions (general health). Scores range from 0 through 100, with higher scores indicating a better quality of life. The SF-36 has been validated for use in Thailand (Lim, Seubsman, and Sleight 2008). All items of the questionnaires were orally

presented to participants by the interviewer (TS) and, if necessary, orally explained for comprehension.

Data analysis

Characteristics are summarised using descriptive statistics, with categorical variables presented as numbers and proportions, and continuous data as means and standard deviations. Data were presented according to categories of either *kathoeys* or *toms*, as well as categories of cross-sex hormone use. Statistical analyses with accompanying *p*-values were assessed through *t*-tests for independent samples or chi-squared tests, when appropriate. Logistic regression assessed the relationship between acceptance by oneself or others in relation to the use of cross-sex hormones through odds ratios and 95% confidence intervals, adjusting for age. All tests were two-tailed with $p < 0.05$ denoting statistical significance. SPSS version 17.0 (SPSS Inc., Chicago, Ill) was used for all data analysis.

Results

Table 1 presents the socio-demographic characteristics and cross-sex hormone use among *toms* and *kathoeys*. Thirty-five percent of *toms* reported cross-sex hormone use, while *kathoeys* reported 73% ($p < 0.001$). Characteristics were similar between the two groups. There were no differences between *kathoeys* and *toms* with respect to the period of hormone use, satisfaction with hormones and side effects of hormones. Moreover, hormone use was largely unsupervised by health personnel. In both groups, friends usually provided hormones, as opposed to a physician or pharmacist. About a third of *toms* used injectable testosterone preparations. Side effects were tense feelings in the days following the injection. In terms of surgery, there were no significant differences between wanting surgery or actually considering surgery among *toms* and *kathoeys*. Other items, such as initial age of transgender feelings, period of living as a transgender person, acceptance of oneself and acceptance by parents and siblings were also not different. Both groups reported substantially high numbers of transgender and homosexual persons within their families.

There were no significant differences between *kathoeys* and *toms* with regards to functional health and mental well-being (Table 2). Specifically, subscales surrounding dispositional optimism, social functioning and the SF-36 did not show any significant differences between the two groups.

Table 3 presents similar information on functional health and mental well-being as reported by Table 2, but here the association with cross-sex hormone use is analyzed. Among *kathoeys*, there were no significant differences in the subscales, although there was a general tendency for a poorer profile of functional health and mental well-being among hormone users. Among *toms*, however, subscales of SF-36 showed some statistically significant differences with respect to bodily pain and mental health. Better scores on bodily pain, mental health, vitality and general health were encountered among *toms* not using cross-sex hormones.

Table 4 shows the relationships between acceptance of oneself or by others in relation to the use of cross-sex hormones. For both *kathoeys* and *toms*, the use of cross-sex hormones is

significantly associated with poorer acceptance by parents. *Toms* who use cross-sex hormones were 8 times more likely to have poorer acceptance by their parents, compared to *toms* not using hormones. Similarly, *kathoeys* who used cross-sex hormones were almost 5 times as likely to have poorer acceptance by their parents, compared to *kathoeys* not using hormones.

Discussion

In the Global North, health care providers perceive transgender women and transgender men as very different populations. On average, transgender men start their transitional surgeries five years earlier than transgender women and have fewer transition-related health issues (Van Kesteren et al. 1996, Asscheman et al. 2011). Our findings do not support that. Initial feelings of wanting to transition and the period of time using cross-sex hormones were not different between *kathoeys* and *toms*. To the best of our knowledge there is only one study that has addressed differences between the two populations (Kockott and Fahrner 1988). The present study provided, for the first time, information on the use of cross-sex hormones for *toms* and acceptance by family. Our findings from the Life Orientation Test Revised (LOT-R), Social Functioning Questionnaire (SFQ) and the Short Form Health Survey 36 (SF-36) found remarkably few differences between *kathoeys* and *toms*.

Reliable information about quality of life, social functioning, and dispositional optimism of the Thai population are lacking to date, but there have been studies in representative general populations from other countries. Mean scores of dispositional optimism measured by the LOT-R were between 15.5 and 16.1 among men and between 15.2 and 15.5 among women in the age groups between 18 and 50 years old (Glaesmer et al. 2012). Standard deviations varied between 3.7 and 4.5. For the SF-36, normative data is available from Norwegian, British, and US populations. Mean scores in men and women for most subscales ranged between 70 and 90 (Ware et al. 1993, Loge and Kaasa 1998, Bowling et al. 1999). Thus, when we compare our results to these population based-norms, it is suggested that dispositional optimism and most dimensions of quality of life were on average poorer among Thai transgender participants, except for physical role-limitations and vitality. Cut-off values derived from the general population for the SF-36 yielded 54 for bodily pain, 13 for physical role-limitations, 65 for physical functioning, 63 for social functioning, 56 for mental health, 33 for emotional role-limitations, 40 for vitality, and 45 for general health (Schulte-van Maaren et al. 2012). This also indicated that about 20 to 30% of our Thai transgender participants suffered from poor quality of life for most dimensions. Mean levels of social functioning assessed through the SFQ in other populations were 4.6 for Caribbean, 4.5 for Indians, 5.2 for Pakistanis, and 5.8 for Bangladeshi (Tyrer et al. 2005). Thus, the mean levels in the Thai transgender groups (7.0 for *kathoeys* and 6.6 for *toms*) indicate poorer social functioning.

Both groups scored well on quality of life, had an optimistic view on life, and had good self-rated level of social functioning. However, 20–30% had poorer quality of life scores, when compared to data from Norwegian, British, and US populations. While there are no published studies in Thailand that compared *kathoeys* and *toms*, we located two studies that, while are unpublished reports, used SF-36 to assess quality of life among *kathoeys* cross-sex

hormone users and non-users in Chiangmai city (Mahinchai and Ditsawanon 2008; Suja, Sutanyawatchai and Siri 2005). In one study (Mahinchai and Ditsawanon 2008), significant differences were found between *kathoeys* users and non-users of cross-sex hormones for sexual life satisfaction, security and stability in life, and having enough income. In the other study (Suja, Sutanyawatchai and Siri 2005), significant differences were found between *kathoeys* users and non-users of cross-sex hormones for physical functioning, role physical, general health, vitality, social functioning and role emotion. In our study, however, there were no significant differences between *kathoeys* users of cross-sex hormones and non-users, only marginal differences in mental health and vitality ($p=0.06$ and $p=0.08$, respectively). The discrepancy in findings could be attributed to the smaller sample size of our study. More research is therefore needed to investigate the relationship between cross-sex hormone use and quality of life, social functioning and mental well-being.

We found that there was poorer parental acceptance for transgender participants (both *kathoeys* and *toms*) who are current users of cross-sex hormones. This could be the result of a realisation by parents that their child is serious about transitioning, and is not a temporary phase in their lives. Cross-sex hormone use was much higher among *kathoeys* than *toms*. In Thailand, use of hormones among *kathoeys* (usually oral contraceptives) is easily accessible and economical (Gooren et al. 2013). Testosterone use among *toms*, however, is not easily accessible in Thailand and often quite expensive.

In this paper, we made a bold move by presenting *toms* to be Thailand's version of transgender men. This attempt by us was not to rename or reframe a locally produced identity or to argue with Sinnott's findings of Thai women's sexuality (Sinnott 2011), but rather to extend our current understanding of gender and sexuality categories in Thailand and in doing so, encourage local and national discussions on transgender men and their transitional needs.

Limitations of the study

Our study has limitations. This was a convenience sample near a university campus, consisting of exclusively self-identified *toms* and *kathoeys*. Because participants were recruited on or near a university campus, they may in fact be students or former students or friends of students or friends of former students. This may have implications for the external validity especially for functional status and mental well-being. A previous study found that higher education is correlated with higher dispositional optimism (Glaesmer et al. 2012). Hence our findings may not be applicable to other populations with a lower general education. Moreover, finding *toms* who are willing to participate in this type of study in a non-educational setting is often difficult, if not impossible. A larger and more representative research population of transgender people would significantly improve the study's validity, but it is currently unattainable for an exploratory study of this nature. And because this was an exploratory study, we did not have important questions on life course issues related to transition as well as other vulnerabilities specific to transgender people (Guadamuz et al., 2013; Guadamuz et al., 2014). Nevertheless, we do not feel that these findings are recent trends specific to students in the city of Chiangmai or in Northern Thailand, but instead, reflect the realities of many *toms* and *kathoeys* in Thailand. This paper, to our knowledge,

provides the first published data on cross-sex hormone use, functional health and mental wellbeing among *toms* and *katoeys* in Thailand.

Despite the limitations, this study proves that research among transgender men and transgender women is not impossible and should be conducted and documented, similar to other hard-to-reach populations (Ojanen et al. 2014). The study also provides preliminary data for a hard-to-reach population that can be used for future research to further understand cross-sex hormone use, mental health, and the role of family and peer relationships among transgender people in Thailand and the Southeast Asian region. Currently, health education curricula in Thai primary and secondary schools, for example, still refer to transgender people as gender and sexual deviants (UNESCO et al., 2014). This has direct social and healthcare implications for Thai transgender people (e.g., stigma and discrimination from society, Thai government not recognising the new gender identity, and lack of sensitivity among healthcare personnel). And so, in order to improve the health of transgender people in Thailand, simply recognising that they are human beings deserving of dignity, respect and rights like everyone else, and not gender and sexual deviants, may be the very first step Thailand should take.

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Table 1

Comparison of socio-demographic characteristics and cross-sex hormone use among transgender participants (*kathoeys* and *toms*) in Chiangmai, Thailand

	<i>Kathoeys</i> (n=60)	<i>Toms</i> (n=60)	<i>p</i> - value
Mean age (SD)	25.7 (6)	24.8 (4.7)	0.37
Age at first transgender feelings (yr) – mean ± SD	9.1 ± 5.4	9.7 ± 5.4	0.55
Years in transition – mean ± SD	13.9 ± 7.3	12.2 ± 6.9	0.19
Use of cross-sex hormones (%)	44 (73%)	21 (35%)	< 0.001
Hormones supplied or prescribed by (%)			
• Doctor or pharmacist	2 (4%)	2 (10%)	0.58
• Friend	48 (96%)	19 (91%)	
Unsatisfied with hormones (%)	3 (6%)	2 (10%)	0.63
Satisfied with hormones (%)	32 (73%)	12 (57%)	0.21
Side effects of hormones (%)	27 (61%)	13 (62%)	1.00
Years using hormones (SD)	11.7 ± 6.1	9.5 ± 4.7	0.15
Wanting surgery (%)			
• Yes	15 (25%)	9 (15%)	0.17
Considering surgery (%)	14 (23%)	7 (12%)	0.09
Acceptance of oneself (%)	50 (83%)	54 (90%)	0.28
Acceptance by parents (%)	51 (85%)	43 (72%)	0.08
Acceptance by brothers/sisters (%)	51 (90%)	39 (87%)	0.66
Transgender persons in family (%)	11 (18%)	7 (12%)	0.31
Gay persons in family (%)	19 (32%)	13 (22%)	0.22

All *p*-values obtained from chi-squared test unless otherwise noted

p-values obtained from *t*-test

Abbreviations: SD, standard deviation

Table 2Comparisons of functional health and mental well-being among *kathoeys* and *toms* in Chiang Mai, Thailand

All transgender participants	<i>Kathoeys</i> (n=60)	<i>Toms</i> (n=60)	<i>p</i> - value
Dispositional optimism – mean ± SD	12.9 ± 0.3	13.0 ± 0.2	0.73
Social Functioning Questionnaire – mean ± SD	7.0 ± 0.4	6.6 ± 0.4	0.51
Short Form 36 (SF-36) subscales:			
• Bodily pain	63.3 ± 4.0	64.7 ± 3.8	0.81
• Role-Physical	77.1 ± 4.1	85.8 ± 3.6	0.11
• Physical functioning	76.2 ± 2.4	80.5 ± 2.0	0.17
• Social functioning	71.1 ± 3.4	72.8 ± 2.7	0.70
• Mental health	64.5 ± 2.1	67.1 ± 2.0	0.39
• Role-Emotional	72.2 ± 4.8	78.9 ± 4.4	0.31
• Vitality	64.1 ± 1.8	65.6 ± 1.9	0.57
• General health	60.0 ± 2.5	60.2 ± 2.3	0.96
Transgender participants using cross-sex hormones	<i>Kathoeys</i> (n=44)	<i>Toms</i> (n=21)	<i>p</i> - value
Dispositional optimism – mean ± SD	12.8 ± 0.4	12.8 ± 0.5	0.99
Social Functioning Questionnaire – mean ± SD	7.3 ± 0.4	7.5 ± 0.5	0.67
Short Form 36 (SF-36) subscales:			
• Bodily pain	61.4 ± 4.9	50.5 ± 6.6	0.20
• Role-Physical	75.6 ± 5.2	81.0 ± 7.3	0.55
• Physical functioning	75.5 ± 2.8	78.8 ± 2.8	0.46
• Social functioning	72.0 ± 3.5	68.3 ± 4.6	0.53
• Mental health	62.1 ± 2.4	58.7 ± 3.4	0.42
• Role-Emotional	68.2 ± 5.8	71.4 ± 7.7	0.75
• Vitality	62.2 ± 2.2	60.7 ± 2.8	0.70
• General health	58.5 ± 3.0	54.3 ± 4.1	0.42
Transgender participants not using cross-sex hormones	<i>Kathoeys</i> (n=16)	<i>Toms</i> (n=39)	<i>p</i> - value
Dispositional optimism – mean ± SD	13.2 ± 0.5	13.1 ± 0.2	0.91
Social Functioning Questionnaire – mean ± SD	6.3 ± 1.0	6.1 ± 0.6	0.90
Short Form 36 (SF-36) subscales:			
• Bodily pain	68.8 ± 7.1	72.3 ± 4.3	0.66
• Role-Physical	81.3 ± 6.3	88.5 ± 4.0	0.33
• Physical functioning	78.1 ± 4.3	81.4 ± 2.7	0.52
• Social functioning	68.8 ± 8.5	75.2 ± 3.4	0.40
• Mental health	71.3 ± 4.2	71.6 ± 2.3	0.94
• Role-Emotional	83.3 ± 8.1	82.9 ± 5.3	0.97
• Vitality	69.4 ± 2.9	68.2 ± 2.5	0.79
• General health	64.1 ± 4.4	63.3 ± 2.8	0.89

Data are mean $\pm$ standard errors (SE). p -value by t -test for independent samples. Higher scores on the social functioning questionnaire indicate worse social functioning, whereas higher scores on dispositional optimism and the SF-36 indicate higher optimism and better quality of life.

Table 3

Functional health and mental well-being of *kathoeys* and *toms* in Chiagmai, according to cross-sex hormone use

<i>Kathoeys</i> (n=60)	Using cross- sex hormones (n=21)	Not using cross- sex hormones (n=39)	<i>p</i> - value
Dispositional optimism – mean ± SD	12.8 ± 0.4	13.2 ± 0.5	0.53
Social Functioning Questionnaire – mean ± SD	7.3 ± 0.4	6.3 ± 1.0	0.25
Short Form 36 (SF-36) subscales:			
• Bodily pain	61.4 ± 4.9	68.8 ± 7.1	0.42
• Role-Physical	75.6 ± 5.2	81.3 ± 6.3	0.55
• Physical functioning	75.5 ± 2.8	78.1 ± 4.3	0.62
• Social functioning	72.0 ± 3.5	68.8 ± 8.5	0.68
• Mental health	62.1 ± 2.4	71.3 ± 4.2	0.06
• Role-Emotional	68.2 ± 5.8	83.3 ± 8.1	0.17
• Vitality	62.2 ± 2.2	69.4 ± 2.9	0.08
• General health	58.5 ± 3.0	64.1 ± 4.4	0.33
<i>Toms</i> (n=60)	Using cross- sex hormones (n=23)	Not using cross- sex hormones (n=37)	<i>p</i> - value
Dispositional optimism – mean ± SD	12.8 ± 0.5	13.1 ± 0.2	0.45
Social Functioning Questionnaire – mean ± SD	7.5 ± 0.5	6.1 ± 0.6	0.12
Short Form 36 (SF-36) subscales:			
• Bodily pain	50.5 ± 6.6	72.3 ± 4.3	0.005
• Role-Physical	81.0 ± 7.3	88.5 ± 4.0	0.33
• Physical functioning	78.8 ± 2.8	81.4 ± 2.7	0.55
• Social functioning	68.3 ± 4.6	75.2 ± 3.4	0.23
• Mental health	58.7 ± 3.4	71.6 ± 2.3	0.002
• Role-Emotional	71.4 ± 7.7	82.9 ± 5.3	0.22
• Vitality	60.7 ± 2.8	68.2 ± 2.5	0.06
• General health	54.3 ± 4.1	63.3 ± 2.8	0.07

Table 4Acceptance and cross-sex hormone use among *kathoeys* and *toms* in Chiangmai, Thailand

<i>Kathoeys</i> (n=60)	Using cross- sex hormones (n=21)	Not using cross-sex hormones (n=39)	<i>p</i> - value
Poor acceptance of oneself:			
• n (%)	2 (13%)	8 (18%)	0.72
• Odds ratios *	0.61 (0.11–3.28)	1.0 (ref)	0.57
Poor acceptance by parents:			
• n (%)	5 (31%)	4 (9%)	0.048
• Odds ratios *	4.81 (1.08–21.5)	1.0 (ref)	0.04
Poor acceptance by brothers/sisters – n (%)			
• n (%)	2 (13%)	4 (10%)	0.65
• Odds ratios *	1.79 (0.26–12.5)	1.0 (ref)	0.56
<i>Toms</i> (n=60)	Using cross- sex hormones (n=23)	Not using cross-sex hormones (n=37)	<i>p</i> - value
Poor acceptance of oneself:			
• n (%)	3 (8%)	3 (14%)	0.66
• Odds ratios *	0.49 (0.09–2.77)	1.0 (ref)	0.42
Poor acceptance by parents:			
• n (%)	15 (39%)	2 (10%)	0.02
• Odds ratios *	8.07 (1.47–44.2)	1.0 (ref)	0.02
Poor acceptance by brothers/sisters – n (%)			
• n (%)	4 (14%)	2 (12%)	1.00
• Odds ratios *	1.28 (0.21–7.98)	1.0 (ref)	0.79

* Odds ratios (95% confidence intervals) adjusted for age with accompanying *p*-values, analysed through logistic regression analysis