

***Psychological wellbeing during cross-sex hormone transition:  
A mixed methods study***

Thesis submitted to the University of Leicester  
Centre for Medicine, School of Psychology  
For the partial fulfilment of degree of  
Doctorate in Clinical Psychology

**By**  
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## **Declaration**

I confirm that the literature review and research report are an original piece of work and have been submitted in partial fulfilment of the degree of Doctorate in Clinical Psychology. No part of the report has been submitted to any other degree or to any other institution.

***Psychological wellbeing during cross-sex hormone transition:  
A mixed methods study***

By

Meghan Dory Thurston

**Thesis abstract**

Gender dysphoria is the distress experienced because of the disparity between an individual's psychological gender and sex assigned at birth. Some individuals that experience gender dysphoria pursue medical and psychological interventions and transition. This thesis examines the impact of gender transition.

*Literature review*

Sexuality is a multifaceted construct that may be influenced by our gender identity. The current thematic review appraised and synthesised findings from seven qualitative articles. Two main themes regarding 're-negotiating previous 'norms'', and 'establishing identity' were generated. The quality of the articles suggested there is scope for improvement when conducting qualitative research in this area.

*Empirical report*

The empirical study examined psychological wellbeing during cross sex hormone transition. Cross sex hormone transition aims to alleviate distress experienced as a consequence of gender dysphoria. The study adopted a mixed methods approach to determine if there was any statistical change in psychological variables over time, and to supplement this with an understanding of the experiences that were occurring.

A total of 60 questionnaires were completed and the data were examined using descriptive, correlation, multiple regression, and paired sample t-test analysis. A total of two individuals participated in a photo elicitation interview and discussed their experience of their psychological wellbeing during cross sex hormone transition.

The quantitative findings suggest that prior to starting cross sex hormone transition, individuals experience statistically elevated rates of anxiety, and depression, and lower self-esteem. Interpersonal functioning and self-esteem predicted variance in anxiety, and interpersonal functioning predicted variance in depression. Over the course of cross sex hormone transition there were statistical improvements in self-esteem and body dysphoria. The qualitative findings revealed super-ordinate themes of: discovery; self-protection; and critical stance and responsibility.

### *Critical appraisal*

The critical appraisal details the research journey and learning points that occurred. Issues relating to both personal and professional development are considered.

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(including non-mandatory appendices, tables, figures, and references)

## Table of contents

<b>Declaration .....</b>	<b>i</b>
<b>Thesis abstract .....</b>	<b>i</b>
<b>Acknowledgements.....</b>	<b>iii</b>
<b>Word count .....</b>	<b>iv</b>
<b>Table of contents.....</b>	<b>v</b>
<b>List of tables.....</b>	<b>ix</b>
<b>Literature review .....</b>	<b>ix</b>
<b>Empirical report.....</b>	<b>ix</b>
<b>List of figures.....</b>	<b>x</b>
<b>Literature review .....</b>	<b>x</b>
<b>Empirical report.....</b>	<b>x</b>
<b>List of appendices .....</b>	<b>xi</b>
<b>Glossary.....</b>	<b>xii</b>
<b>Section one: Literature review .....</b>	<b>1</b>
<b>Abstract.....</b>	<b>2</b>
<b>1. Introduction.....</b>	<b>3</b>
<b>1.1 Gender transition .....</b>	<b>3</b>
<b>1.2 Sexual factors associated with ‘trans’ and gender transition: Previous research.....</b>	<b>5</b>
1.2.1 Blanchard’s taxonomy .....	5
1.2.3 Previous reviews.....	6
<b>1.3 Rationale and aims of the current review .....</b>	<b>6</b>
<b>1.4 Epistemological position.....</b>	<b>7</b>
<b>2. Method .....</b>	<b>8</b>
<b>2.1 Systematic literature search.....</b>	<b>8</b>
2.1.1 Identifying topic of interest and search strategy .....	8
2.1.2 Selecting studies .....	8
<b>2.2 Quality appraisal.....</b>	<b>9</b>
<b>2.3 Thematic synthesis .....</b>	<b>10</b>
2.3.1. Coding text (step 1) and developing descriptive themes (step 2) .....	10
2.3.2. Generating analytical themes (step 3) .....	10
<b>3. Results.....</b>	<b>11</b>
<b>3.1 Quality of the articles reviewed.....</b>	<b>11</b>
3.1.1 Aim and method.....	11
3.1.2 Relationships and reflexivity .....	11
3.1.3 Analysis .....	12
3.1.4 Findings and value of research.....	12
3.1.5 Conclusion .....	12
<b>3.2 Thematic synthesis .....</b>	<b>14</b>
3.3.1 Analytical themes .....	16
3.3.1.1 Re-negotiating previous ‘norms’ .....	16
3.3.1.1.1 Sexual preferences.....	16

3.3.1.1.2 Sexual activity.....	17
3.3.1.1.3 Sexual development.....	18
3.3.1.2 Establishing identity.....	19
3.3.1.2.1 Gender identity .....	19
3.3.1.2.2 Sexual orientation.....	20
3.3.1.2.3 Social expectations .....	21
<b>4. Discussion.....</b>	<b>22</b>
<b>4.1 Overall discussion .....</b>	<b>22</b>
4.1.1 Quality of the articles reviewed.....	22
4.1.2 Thematic synthesis.....	22
<b>4.2 Limitations.....</b>	<b>24</b>
<b>4.3 Clinical implications .....</b>	<b>25</b>
<b>4.4 Further research .....</b>	<b>25</b>
<b>4.5 Conclusion.....</b>	<b>26</b>
<b>5. References .....</b>	<b>27</b>
 <b>Section two: Empirical report .....</b>	 <b>33</b>
<b>Abstract.....</b>	<b>34</b>
<b>1. Introduction.....</b>	<b>35</b>
<b>1.1 Diagnosis .....</b>	<b>35</b>
<b>1.2 Medical and psychological interventions.....</b>	<b>35</b>
<b>1.3 Psychological wellbeing and gender transition .....</b>	<b>37</b>
1.3.1 Prior to gender transition.....	37
1.3.2 Social transition .....	37
1.3.3 Medical interventions.....	38
<b>1.4 Rationale for the current study .....</b>	<b>39</b>
<b>1.5 Aims and objectives .....</b>	<b>39</b>
<b>2. Method .....</b>	<b>41</b>
<b>2.1 Overview.....</b>	<b>41</b>
<b>2.2 Ethical considerations .....</b>	<b>41</b>
<b>2.3 Research context.....</b>	<b>41</b>
<b>2.4 Participant identification and selection .....</b>	<b>42</b>
2.4.1 Inclusion criteria: .....	42
2.4.2 Exclusion criteria: .....	42
<b>2.5 Quantitative.....</b>	<b>43</b>
2.5.1 Power analysis.....	43
2.5.2 Participant recruitment.....	43
2.5.3 Procedure .....	43
2.5.4 Measures .....	44
2.5.4.1 Hospital anxiety and depression scale (HADS) .....	44
2.5.4.2 Rosenberg self esteem scale (RSE) .....	44
2.5.4.3 Multidimensional scale of perceived social support (MSPSS) .....	44
2.5.4.4 Inventory of interpersonal problems (IIP – 32).....	45
2.5.4.5 Hamburg body drawing scale (HBDS).....	45
2.5.5 Data collection .....	45
2.5.6 Plan of analysis .....	46
<b>2.6 Qualitative.....</b>	<b>46</b>
2.6.1 Photo elicitation interviews.....	46
2.6.2 Method of analysis .....	46
2.6.3 Sample size.....	47
2.6.4 Materials.....	47



2.6.5 Interviewee recruitment.....	47
2.6.6 Procedure .....	47
2.6.7 Quality and reflexivity.....	48
<b>3. Results.....</b>	<b>49</b>
<b>3.1 Quantitative.....</b>	<b>49</b>
3.1.1 Sample .....	49
3.1.1.1 Sample size .....	49
3.1.1.2 Demographic information.....	49
3.1.2 Evaluation of assumptions .....	51
3.1.3 Statistical analysis.....	51
3.1.3.1 Prevalence of variables pre CSH transition .....	51
3.1.3.1.1 HADS anxiety.....	53
3.1.3.1.2 HADS depression.....	53
3.1.3.1.3 RSE self-esteem.....	53
3.1.3.1.4 IIP interpersonal functioning, MSPSS social support, and HBDS body dysphoria .....	53
3.1.3.2 Relationship between variables pre CSH transition.....	53
3.1.3.2.1 Pre CSH transition anxiety .....	56
3.1.3.2.2 Pre CSH transition depression .....	56
3.1.3.3 Predictors of anxiety and depression pre CSH transition.....	56
3.1.3.3.1 Pre CSH transition anxiety .....	59
3.1.3.3.2 Pre CSH transition depression .....	59
3.1.3.4 Impact of CSH on psychological wellbeing .....	59
3.1.3.4.1 Analysis of IIP and MSPSS subscales .....	62
<b>3.2 Qualitative.....</b>	<b>62</b>
3.2.1 Interviewees and photographs.....	62
3.2.2.IPA analysis: Super-ordinate and subthemes .....	62
3.2.2.1 Discovery.....	63
3.2.2.1.1 Gender.....	63
3.2.2.1.2 Choices.....	65
3.2.2.1.3 Emotions .....	66
3.2.2.2 Self-protection .....	67
3.2.2.2.1 Acceptance and others.....	67
3.2.2.2.2 Support and stability .....	68
3.2.2.3 Critical stance and responsibility .....	71
3.2.2.3.1 Wider education and awareness .....	71
3.2.2.3.2 Systems.....	72
<b>4. Discussion.....</b>	<b>74</b>
<b>4.1 Summary of research findings .....</b>	<b>74</b>
4.1.1 Psychological wellbeing pre CSH transition .....	74
4.1.2 Psychological wellbeing during CSH transition .....	75
4.1.3 Overview .....	77
<b>4.2 Clinical implications .....</b>	<b>77</b>
<b>4.3 Strengths and limitations .....</b>	<b>78</b>
<b>4.4 Recommendations for future research .....</b>	<b>80</b>
<b>4.5 Conclusion.....</b>	<b>80</b>
<b>5. References .....</b>	<b>81</b>
 <b>Section three: Critical appraisal .....</b>	 <b>90</b>
<b>3.1 Overview.....</b>	<b>90</b>
<b>3.2 Choosing a research topic.....</b>	<b>90</b>
<b>3.3 Choosing a method .....</b>	<b>91</b>

3.3.1 Quantitative .....	91
3.3.2 Qualitative .....	91
3.4 Collecting data .....	92
3.4.1 Quantitative .....	92
3.4.2 Qualitative .....	93
3.5 Analysis .....	94
3.5.1 Quantitative .....	94
3.5.2 Qualitative .....	94
3.6 Write up .....	95
3.7 Dissemination.....	95
3.8 Reflections on personal and professional development.....	96

## **List of tables**

### **Literature review**

Table 1: Quality appraisal using the CASP checklist .....	13
---	----

### **Empirical report**

Table 1: Demographic characteristics for the sample used in the current study.....	50
Table 2: Psychological wellbeing of the current sample and clinical and non-clinical comparison means. ....	52
Table 3: Correlational analysis of the relationship between psychological wellbeing (anxiety and depression) and self-esteem, social support, interpersonal functioning, and body dysphoria. ....	55
Table 4: Multiple regression analysis of relationship between psychological wellbeing (anxiety and depression) and self-esteem, social support, interpersonal functioning, and body dysphoria.....	58
Table 5: Paired samples t-test for pre and 12 months post CSH. ....	60
Table 6: Wilcoxin signed rank test for pre and 12 months post CSH. ....	61

## **List of figures**

### **Literature review**

Figure 1: Analytical and descriptive themes. ....	15
---	----

### **Empirical report**

Figure 1: Diagrammatic representation of IPA super-ordinate and subordinate themes .....	64
Figure 2: Photograph of caged animals.....	66
Figure 3: Photograph of photographs in bedroom .....	70
Figure 4: Photograph of cross sex hormones.....	73

## **List of appendices**

Appendix A: Guidelines for authors for target journal.....	98
Appendix B: Search terms.....	109
Appendix C: Flowchart for study selection.....	110
Appendix D: Data extraction form .....	111
Appendix E: Study characteristics.....	105
Appendix F: Critical appraisal skills programme checklist.....	106
Appendix G: REC Favourable ethical approval quantitative.....	110
Appendix H: REC favourable ethical approval qualitative .....	116
Appendix I: R&D favourable ethical approval qualitative .....	120
Appendix J: Quantitative PIS and consent .....	122
Appendix K: Example of IPA analysis .....	125
Appendix L: Statement of epistemological position.....	126
Appendix M: Qualitative topic guide .....	128
Appendix N: Qualitative PIS and consent form .....	131
Appendix O: Timeline of research process.....	138
Appendix P: Sample size.....	140
Appendix Q: Test for normality .....	141
Appendix R: HADS clinical cut off data.....	142
Appendix S: Full inter-correlation table .....	143
Appendix T: Assumptions for multiple regression.....	144
Appendix U: Flowchart of quantitative and qualitative results .....	148

## **Glossary**

*Cisgender* – an individual who has a gender identity that resembles that of their sex assigned at birth.

*Cross sex hormone* – the use of prescribed cross-sex hormones to alter secondary sex characteristics.

*Gender* – the socially constructed behavioural, cultural, and psychological characteristics associated with biological sex.

*Gender dysphoria* – the DSM diagnosis for individuals that experience distress as a result of their gender identity being incongruent with their sex assigned at birth.

*Gender identity* – how an individual refers to themselves as male or female.

*FtM* – female to male.

*MtF* – male to female.

*Sex* – biological characteristics that are typically categorised as male or female.

*Sex reassignment surgery* – surgical intervention to alter physical sex characteristics.

*Transgender* – often abbreviated to trans, the umbrella term to represent the many available gender expressions. Trans will be the term used throughout the thesis as it is often the more preferred term by individuals accessing services.

*Transsexualism* – the ICD diagnosis for individuals wishing to pursue interventions to become physically congruent with their preferred gender identity.

**Section one: Literature review**

***‘Sexuality and sexual experiences during gender transition: A thematic synthesis’***

By

Meghan Dory Thurston

**(Guidelines to authors for target journal can be found in Appendix A)**

## **Abstract**

*Aim:* To establish the impact, if any, of the gender transition process, on sexuality and sexual experiences.

*Introduction:* Sexuality is a multi-faceted construct that influences our attraction to other individuals. Gender transition is the process of aligning our physical sex characteristics with our psychological gender. Our sexuality and our gender identity are often assumed to be inextricably linked, however, in reality this is not the case. It is important to consider the influence of the gender transition process on sexuality and sexual experiences.

*Method:* A thematic synthesis of the available qualitative literature regarding sexuality, and sexual experiences in both trans individuals and their partners was appraised, and synthesised. Thomas and Harden's (2008) stepwise process for conducting a thematic synthesis was followed.

*Results:* A total of seven articles were of relevance and included in the review. The quality of these articles was appraised. Two analytical and six sub themes were found. The two analytical themes are: 'Re-negotiating previous 'norms'' and 'Establishing identity'.

*Conclusion:* During the gender transition process, sexuality, and sexual experiences alter. This has clinical implications for individuals and partners concerning valuable therapeutic discussion points.

**Keywords:** Sexuality; sexual experiences; trans; partner



## **1. Introduction**

Sexuality is a multifaceted construct including the biological, psychological, and social attributes that contribute to how we feel and are attracted to others. We experience and express our sexuality in a variety of different ways, for example: our behaviour; attitudes; thoughts; desires; values; fantasies; and in our relationships. Although discrete categories are often used to classify our sexuality (gay men, lesbian, heterosexual, bisexual), it can be conceptualised as existing on a continuum (Kinsey, *et al.*, 1948; Kinsey, *et al.*, 1953; Shiveley & DeCecco, 1977) and/or fluid, and varies across time and situation (Diamond, 2007; Golden, 1987).

Although distinct concepts, an individual's sense of their gender identity and how they choose to express it is intrinsically linked with their sexuality. Gender refers to the cultural discourses, and socially constructed attitudes and ideas regarding anticipated behaviour (American Psychological Association (APA), 2011) that is associated with the dominant view that an individual typically identifies their gender identity as either male or female (APA, 2006). Our gender identity is often associated with our biological sex assigned at birth, known as cis-gender (Schilt & Westbrook, 2009). For some, the notion that biological sex inherently dictates our gender identity is objectionable. For these individuals, gender is not synonymous with their birth sex, or the conventional notion of binary genders; gender identity conceivably exists along a continuum. Typically, these individuals fall under the umbrella term 'transgender'. Transgender refers to a range of gender identities across a spectrum; it includes non-binary (genderqueer; bigender; trigender; pangender; agendered; and genderfluid) and binary (trans-male/female to male/FtM and trans-female/male to female/MtF, sometimes referred to as transsexual for diagnostic medical purposes) (Bockting, 2009; King & Ekins, 2000; Shaw *et al.*, 2012).

### **1.1 Gender transition**

Some trans individuals wish to alter their appearance and undergo gender transition to aesthetically and physically appear as their preferred gender. The gender transition process typically, but not exclusively, involves: social transition; legal confirmation; cross-sex hormone treatment; and sex reassignment surgery (SRS).

Evidence based guidelines exist that provide services with a recommended framework regarding medical and psychological management for individuals wishing to undergo gender transition. National (World Professional Association of Transgender Health (WPATH) Standards of Care (SoC), 7<sup>th</sup> edition, Coleman *et al.*, 2012) and local guides (informed by the WPATH SoC) have been published. Although there are subtle differences between guidelines dependent on funding and service provision there is a broad consensus on recommended treatment options for gender transition.

Following assessment, if a diagnosis of either ‘gender dysphoria’ (APA, 2013) (the distress experienced between an individual’s gender expression and sex assigned at birth) or ‘transsexualism’ (World Health Organisation (WHO), 1992) (the desire to pursue treatments to become physically congruent with an individual’s preferred gender) is received, certain medical and psychological interventions are offered. Typically, in the first instance, social gender transition is recommended (Ahmad *et al.*, 2013; Wylie *et al.*, 2014). This involves functioning in their preferred gender, a formal change of name, identification, ensuring all family, friends, and work colleagues are aware of their gender transition. Simultaneously, initiation of cross-sex hormone treatment may occur and the individual will also start to biologically transition.

Following social transition and cross-sex hormone treatment, an individual is eligible for a recommendation for SRS (Ahmad *et al.*, 2013; Wylie *et al.*, 2014). SRS consists of a range of surgical procedures whereby the individual alters their physical and functional sexual characteristics to resemble that of their desired sex. SRS is based on the recommendation of one or two specialist clinicians (dependant on the type of SRS the individual is requesting, Coleman *et al.*, 2012) whom are satisfied the individual has transitioned into their preferred gender role and intend to do so for the rest of their lives. Other interventions such as, voice therapy and hair removal are available. In an attempt to recognise various gender expressions, more recently, support plans have become individualised and the aim is to facilitate an individual to feel able to comfortably express their gender identity rather than conformity to a prescribed intervention pathway or gender category.

As detailed, the gender transition process is lengthy, and can potentially involve both the change of intimate physical sex characteristics, alongside navigating establishing a gender identity synonymous with psychological gender. Given the interplay between gender identity and sexuality this review intends to examine how shifts in gender identity impact sexual experiences. The following sections will summarise the history of research in this area, the existing literature, and the justification for the current review.

## **1.2 Sexual factors associated with trans individuals and gender transition: Previous research**

Various methods of measuring aspects of sexuality encompassing the biological, psychological and social aspects of sexuality have been studied within the trans population across the transition process. These have predominantly focused on ‘measurement’ of sexuality and been less focused on exploring the subjective experience during gender transition.

### **1.2.1 Blanchard’s taxonomy**

The concept of sexuality in transgender individuals was first, and controversially, theorised by Blanchard (1985, 1989; Blanchard *et al.*, 1987). Blanchard proposed a typology of male-to-female (MtF) transsexuals as either: androphilic (homosexuals) attracted to their own genetic sex and autogynephilic transsexuals that fantasise about being female (Blanchard, 1985; 1989; Blanchard *et al.*, 1987). This taxonomy has largely been criticised (Serano, 2010; Veale *et al.*, 2010; Veale *et al.*, 2012) viewed as pejorative, erroneously biased towards pathologising sexual behaviour (and thus, unnecessarily stigmatising), and ultimately fails to consider the lived experience and female identities of MtF individuals. Moreover, the assertion that trans individuals are sexually motivated to pursue gender transition challenges the notion that transsexuals can have a gender identity independent from their sexual orientation and biological sex.

### **1.2.2 Quantitative studies**

Since Blanchard’s taxonomy studies have focused on measureable factors involved in sexuality and sexual experiences during the gender transition process. For example, the subjective rating of an individual’s satisfaction with their sexual life; receiving cross-

sex hormone treatment or not; fewer negative feelings; and having a partner, have been associated with marked changes in sexuality (Bartolucci, *et al.*, 2015). An individual's sexual orientation and the frequency of avoidance of negative sexual experiences have been associated with sexuality (Cerwenka, *et al.*, 2014). In particular, if the sexual experience was not 'complementary', where complementary refers to a conceivable 'match' between gender identity and sexual orientation. Testosterone administration has been found to increase sexual desire (Wierckx, *et al.*, 2011) and sexual function such as: masturbation, sexual desire, arousal, and sexual fantasies (Costantino, *et al.*, 2013). The quality of relationships and sexual satisfaction has been found to be comparable to non trans couples (Fleming, *et al.*, 1985). Moreover, it has been found that sexual practices and stereotypical sex roles were not adhered to following transition (Fleming *et al.*, 1984).

### 1.2.3 Previous reviews

To date, only one review synthesising the quantitative literature regarding sexuality and trans individuals has been conducted. Klein and Gorzalka (2009) provided a comprehensive narrative account of primarily the physical aspects of sexuality following either cross-sex hormone treatment or SRS. The descriptive review summarised sexual functioning as measured by sexual desire, masturbation, sexual activity, sexual arousal, and orgasm in both male to female (MtF) and female to male (FtM) transsexuals post cross-sex hormone treatment and/or SRS. Klein and Gorzalka (2009) reported that orgasmic functioning is prevalent and achieved through both masturbation and intercourse, the preliminary evidence available suggested that there is variability in sexual desire and arousal that is contingent on the type of SRS received. The authors commented on the quality of studies reviewed; of particular significance was the variability in methodologies employed across the studies and restrictions involved with collecting self-report data regarding sexuality.

### 1.3 Rationale and aims of the current review

The current literature is largely dominated by studies that aim to quantify changes in sexuality in the transgender population in relation to the transition process; with a particular emphasis on the biological facets of sexuality. However, there is an emerging literature base that explores the individual's account of their reality, and acknowledges

and appreciates a variety of perspectives. It would therefore be useful to review this qualitative literature and synthesis the findings in order to appraise the literature regarding sexuality during the gender transition process. The synthesis used Thomas and Harden's (2008) method of thematic synthesis. Thematic synthesis is an approach that both adapts and combines approaches from meta-ethnography and grounded theory. It is used to synthesis a diverse range of qualitative studies. Recurring themes are identified and developed into analytical themes through descriptive synthesis with the focus on finding explanations relevant to the review question (Ring *et al.*, 2011). To the author's knowledge, to date, no reviews have synthesised the qualitative literature regarding sexuality in the transgender population.

The present review aims to address the following questions:

- What are the sexual experiences that occur during gender transition?
- Are there changes that occur regarding sexuality during gender transition, and if so, why?
- What are the methodological implications and issues of the research, specifically for design and future qualitative work?

#### **1.4 Epistemological position**

The current review was undertaken from a critical realist position; the individual's experience was considered in relation to the broader social context but retained a focus on the limits of reality. The wider literature regarding trans individuals, gender, and sexuality was consulted, which influenced and shaped the selection of the papers included in this review. Any potential bias of the reviewer was acknowledged and discussed with their supervisor.

## **2. Method**

The review process consisted of three stages:

- 1) Systematic literature search (search strategy and paper selection)
- 2) Quality appraisal
- 3) Thematic synthesis

### **2.1 Systematic literature search**

#### **2.1.1 Identifying topic of interest and search strategy**

A topic of interest was identified: sexuality, encompassing all aspects of sexuality and sexual experiences. An electronic literature search was carried out on 29/5/15 and three search engines were used: Scopus; PsycInfo, which includes Wiley; Web of Science; and Medline, which includes Ovid and PubMed. The Cochrane Library database was also searched for existing review articles. Key search terms included combinations of: trans\*; Gender Dysphoria; gender identity; sex\*; relationship; partner; and experience, using the Boolean logic term 'AND' (see Appendix B for a full list of the search terms). Search limiters were applied: English language; qualitative methods; and peer-reviewed journal articles. The parameters were set in order to comprehensively review the available literature. The search was deemed to reach saturation when the same articles continued to appear; any duplicates were removed. Due to the limited research base and given that no previous review has been conducted in this area it was felt that no date restrictions would be imposed as this may exclude any relevant articles.

#### **2.1.2 Selecting studies**

Following the systematic literature search studies were selected to be included in the review. Appendix C outlines the process and at which stage and why articles were excluded. Inclusion criterion was applied when considering which articles were suitable to be selected for the review. The following inclusion criteria were used: studies must a) have reported empirical data on sexuality and sexual experiences in a transgender population during the transition process; b) have used qualitative methods of data

collection and analysis. Only qualitative studies were included; mixed method studies were not included.

Articles that were from the perspective of the transgender individual and/or their partners were included. This decision was based on the review question being focused on how sexuality changes during the transition process and that inclusion of partner's views was relevant, essential to a partnership, and would thicken the thematic synthesis. Furthermore, synthesis should be considered and viewed across different positions and texts (Zimmer, 2006). The inclusion of trans partners allows for a more rounded and comprehensive synthesis.

When considering which studies to include in the systematic review, guidelines regarding reaching 'conceptual saturation' as outlined by Thomas and Harden (2008) were adopted. Conceptual saturation refers to purposive sampling rather than exhaustive sampling (as in meta-analysis) when selecting relevant studies. For thematic synthesis it is not necessary to locate all studies available but rather to identify studies dependant on their concepts and the context of the studies. Although there is not an established method for reaching conceptual saturation, the approach by Thomas and Harden (2008), which involved systematically searching electronic databases, reviewing and filtering any articles and determining when saturation has occurred, was used. The quality appraisal tool (described in the following section) was used to inform which studies were selected and criteria regarding conceptual saturation. The trainee in collaboration with their supervisor completed study selection to gain consensus on the final articles included in the review. Data were extracted using the data extraction form (see Appendix D and E).

## **2.2 Quality appraisal**

Quality assessment was appraised using the Critical Appraisal Skills Programme (CASP, 1998), specifically for qualitative research (see Appendix F). Key criteria were extracted (see Table 1). Only studies considered to be 'fatally flawed' were excluded (Dixon-Woods *et al.*, 2007).

## **2.3 Thematic synthesis**

Thomas and Harden's (2008) stepwise thematic synthesis approach was used to conduct the systematic review. The three sequential steps were followed to identify and appraise the literature and generate overarching analytical themes. This method of synthesis was adopted over other qualitative synthesis methods as it aimed to address specific review questions and inform clinical practice in contrast to other synthesis methods (grounded theory or meta-ethnography) that aim to develop theory or models (Thomas & Harden, 2008). Given that no previous reviews have been conducted in this area the first step is to integrate existing studies available in order to inform future clinical practice, and research.

### **2.3.1. Coding text (step 1) and developing descriptive themes (step 2)**

The articles included in the review were coded for themes. The verbatim text from each article was coded inductively according to meaning and content. This allowed for the translation of concepts from one study to another. Coding was conducted comparatively between studies. Similarities and differences between codes were reviewed. Initial codes were grouped into a structure and descriptive codes assigned to capture the meaning of the group of initial codes.

### **2.3.2. Generating analytical themes (step 3)**

The descriptive codes were used to develop analytical themes. Analytical themes are equivalent to 'third order interpretations', where analysis extends beyond the original findings reported in the review articles to generate concepts in order to answer the review question.



### **3. Results**

#### **3.1 Quality of the articles reviewed**

A total of seven studies were identified as being suitable to include in the current thematic synthesis. A summary of the information extracted as outlined by the CASP checklist (CASP, 1998) is provided in Table 1. A synthesis of the findings from the CASP criteria is presented below.

##### **3.1.1 Aim and method**

All studies explicitly stated their aims and objectives, their methodology and the appropriateness to the aim of the study. All studies provided clear explanations regarding data recruitment: purposive sampling was used in all studies, Williams *et al.* (2013) specifically mentioned the use of ‘snowballing’ technique for recruitment. All studies used semi-structured interviews for data collection, with one study (Schilt & Windsor, 2014) also using observations. Four studies stated the location of where the interviews were conducted: Williams *et al.* (2013) conducted the interviews at either the interviewee’s home, a private residential area, or in a café or restaurant, Brown, (2009; 2010) conducted the interviews in person, over the telephone, or via email, and Alegria (2013) conducted them at the interviewee’s home. Four studies (Alegria, 2013; Brown, 2009; 2010; Williams *et al.*, 2009) loosely described the use of an interview guide. Theron and Collier (2013) commented on the language that some of the interviews were conducted in, with some being in Africans. Six of the studies commented on the length of time the interview took; times ranged from approximately 60 minutes (Williams *et al.*, 2013) to up to three hours (Schilt & Windsor, 2014).

##### **3.1.2 Relationships and reflexivity**

None of the studies stated their epistemological position. Two studies considered the influence of the researcher. Theron and Collier (2013) considered the influence of the first author’s experiential knowledge and emotional connection with the interviewees and themes that emerged. Williams *et al.* (2013) mentioned their approach to the work and acknowledged they viewed the topic as non-trans sociologists. The context of the area where individuals were recruited was discussed too.

### 3.1.3 Analysis

All studies stated the use of a qualitative method of analysis but this varied with regard to transparency and systematicity. Two studies used thematic analysis (Schilt & Windsor, 2013; Theron & Collier, 2013), four used grounded theory analysis (Brown, 2009; 2010; Doorduyn & van Berlo, 2014; Williams *et al.*, 2013), and Alegria (2013) stated she used the constant comparator method. Explanations of the analysis varied in how comprehensive they were. Alegria (2013) stated she ensured rigour by following methods outlined by Lincoln and Guba (1985) and Creswell (1998), no other studies mentioned how they attempted to ensure rigour.

### 3.1.4 Findings and value of research

All studies used quotes to illustrate themes that emerged from the data, and contextualise the findings. Only one study (Alegria, 2013) considered issues of generalisability. Six studies (Alegria, 2013; Brown, 2009; 2010; Doorduyn & van Berlo, 2014; Theron & Collier, 2013; Williams *et al.*, 2013) considered and discussed the limitations of their findings. The clinical implications of the findings and how they could inform practice were considered by two studies (Alegria, 2013; Brown, 2009). Potential ideas for future research were mentioned by three studies (Alegria, 2013; Brown, 2009; 2010).

### 3.1.5 Conclusion

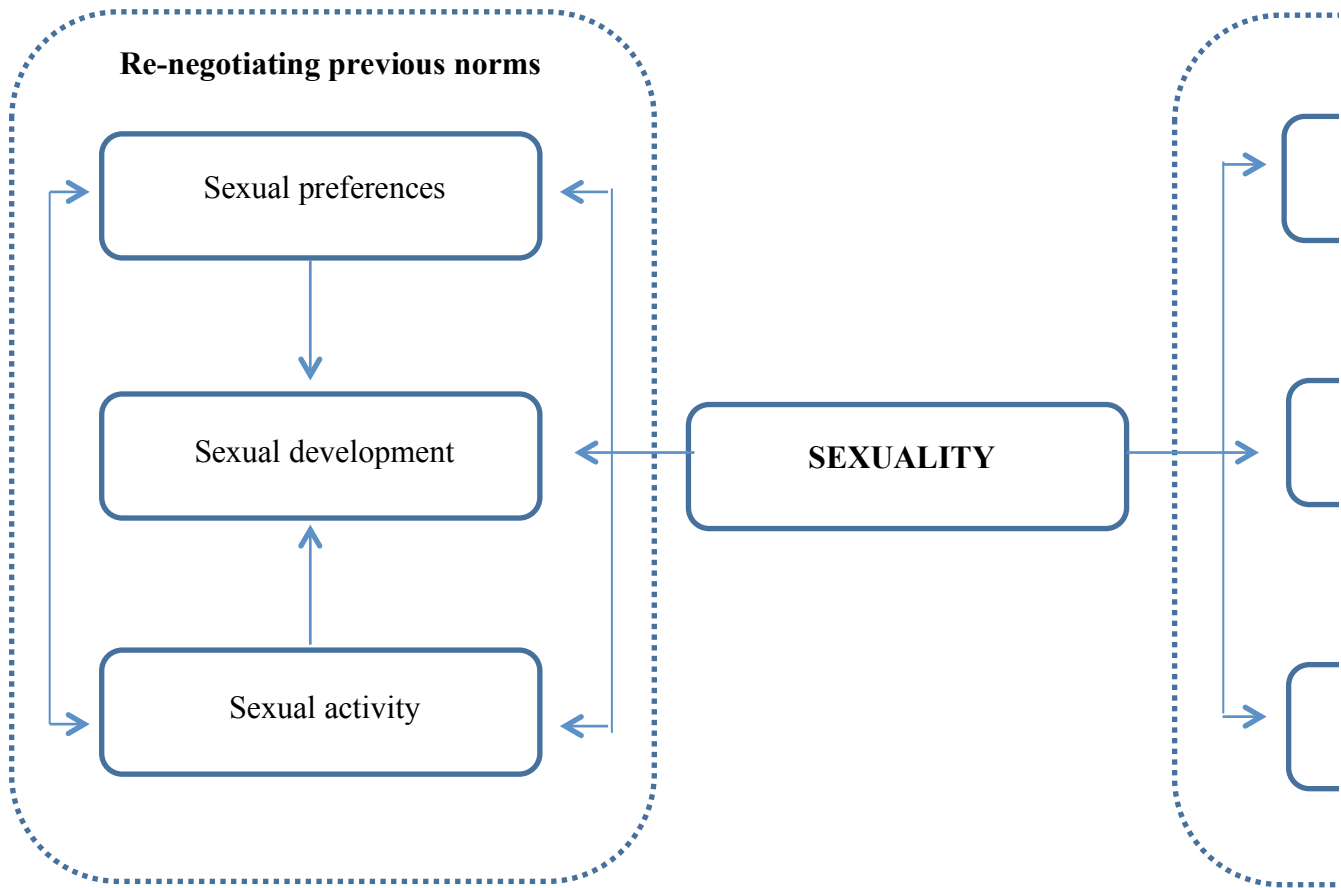
The data extracted from the studies and the CASP review form was also used to consider which articles to include in the current review during study selection. Although the papers varied in quality all were considered to be satisfactory and suitable to include.

**Table 1: Quality appraisal using the CASP checklist**

<i>Authors</i>	<i>Aims</i>	<i>Method</i>	<i>Design</i>	<i>Recruitment</i>	<i>Data Collection</i>	<i>Relationships</i>	<i>Ethical Issues</i>
1. Theron and Collier (2013)	✓	✓	✓	✓	✓	✓	✗
2. Schilt and Windsor (2014)	✓	✓	✓	✓	✓	✗	✗
3. Brown (2010)	✓	✓	✓	✓	✓	✗	✓
4. Doorduyn and van Berlo (2014)	✓	✓	✓	✓	✓	✗	✗
5. Brown (2009)	✓	✓	✓	✓	✓	✗	✗
6. Alegria (2013)	✓	✓	✓	✓	✓	✗	✓
7. Williams, <i>et al.</i> (2013)	✓	✓	✓	✓	✓	✓	✗

### **3.2 Thematic synthesis**

From the synthesis of the included studies, two analytical themes and six sub themes were identified. Fidelity to the original material and context was retained, with the two analytical themes demonstrating changes in sexuality during the gender transition process. The two analytical themes and links between the sub themes are presented in Figure 1.



**Figure 1: Analytical and descriptive themes.**

### 3.3.1 Analytical themes

#### 3.3.1.1 *Re-negotiating previous 'norms'*

As a consequence of the gender transition process, interviewees reflected how during the course of the gender transition process they were required to re-consider previously established sexual 'norms', either their own independent predilections or between them and their partner.

##### 3.3.1.1.1 Sexual preferences

Interviewees discussed shifts that had occurred regarding sexual preferences. Preferences refer to what the individual or couple desired and had a tendency to engage in. Across many of the articles reviewed discussion about sexual 'likes' and 'dislikes' was an apparent feature during the gender transition process. Sexual preferences are influenced by a myriad of factors with gender transition compelling individuals to re-consider sexual preferences with established desires and behaviours altering as new opportunities emerge. This required negotiation for the individual transitioning but also for, if applicable, their partner.

*'It was pleasurable to her, but I had to work up to it'.* (Alegria, 2013).

*'We reoriented sexually. We just somehow sensed and started to respond to each other a little differently' It was recalibration at every stage, you know?'* (Brown, 2010).

Others commented that sexual preferences shifted to become more aligned with their gender identity and genitalia; subsequently a loss of previously enjoyed activities and preferences. What was previously fantasy became reality and this was reflected in sexual preferences.

*'How I then go down on him is also different, right?'* (Brown, 2010).

*'He no longer likes penetration and me touching his chest.'* (Brown,

2010).

*'I suddenly realised – This boy I always 'play', that is actually who I am.'*  
(Doourduin & van Berlo, 2014).

Generally, although a process of adjustment, thoughtfulness and consideration of all individuals involved, changes in sexual preferences represented a significant factor regarding sexuality during gender transition.

### 3.3.1.1.2 Sexual activity

As gender transition occurred the frequency of sexual activity fluctuated, and was noticed and commented on. In some instances interviewees commented that it became more frequent, if in a relationship or single.

*'His libido was way increased. . . . He was not always as interested [in sex] and so that's been nice to have more sex than we've had before. I'm enjoying that'* (Brown, 2010).

*'Anything that moves was something I wanted to fuck. . . I'd never had thoughts like that before'* (Williams *et al.*, 2013).

Although, this increase was not always viewed favourably by some partners and the motivation behind the desire for sexual interaction was questioned.

*'There's a part of it that feels like it's not about me. . . so I'm struggling with that. I'm assuming that [this will settle as his body adjusts to testosterone] . . . but there's a part of [the way he approaches sex] that bugs me. Its not like 'Wow, I'm not for you. I want to have sex with you', its like, 'I have this urge. I need to take care of it', you know?'* (Brown, 2010).

For some, the gender transition process meant that they no longer engaged in sexual activity or other forms of intimacy.

*'I asked myself, 'What are we now? Are we roommates? Are we friends? We're not lovers anymore.'* (Alegria, 2013).

The frequency of sexual activity certainly changed as a consequence of SRS however, the impact of receiving SRS also influenced the frequency and type of sexual activity an individual can engage in.

*'Because it is such a scary surgical procedure and it takes so long before it is all in order again'* (Doorduyn & van Berlo, 2014).

#### 3.3.1.1.3 Sexual development

Sexual preferences and activity fed in to an emerging theme regarding sexual development. Development focused on what assumptions and emphasis either the individual or partner placed on sexuality and sexual activity during or following gender transition. From the individual's perspective this was likened to re-discovering their sexuality, experiencing puberty again, and feeling 'less developed' (in comparison) than cis-gender individuals.

*'This period of (re)discovery could be a difficult and painful process as well.'* (Doorduyn & van Berlo, 2014).

Development was also shaped by previous sexual experiences. Trans individuals reported that sexual maturity was impeded and ultimately this was delayed in relation to their cis-gender peers.

*'I don't think I went through a 'normal' process in terms of sexual development. In puberty [I avoided] it, discovering only at a relatively late age that I actually have something like sexual organs. . . '* (Doorduyn & van Berlo, 2014).



This concept of sexual development extended to partners of trans individuals. If a partner had previously had sexual relations that were akin to the relationship (gender) of their current trans partner this bolstered confidence and consolidated gender identity.

*'I was much more used to dating boys than girls anyway, so I knew how to be the girlfriend of a boyfriend. . . so that really worked for him.'* (Brown, 2010).

### 3.3.1.2 Establishing identity

Establishing a secure and fitting identity is fundamental to individuals wishing to transition however, it extends beyond this to realising a satisfactory sexual identity. Themes regarding gender identity, sexual orientation, and the association between social roles and relationships were apparent throughout the articles reviewed.

#### 3.3.1.2.1 Gender identity

How individuals expressed their gender identity and how this influenced sexuality was a general theme that emerged from the articles reviewed. Discussion about gender identity was variable in that for the individual transitioning identity became established and confirmed happiness and contentment. The more embodied an individual was became reflected in their satisfaction sexually.

*'I feel so much more connected with my body. . . I feel so much more touchable. I like the way I look'*. (Schilt & Windsor, 2014).

*'Wow, if I can date these straight women, they really must have this [sexual] experience of me being a man'* (Williams *et al.*, 2013).

For others, namely partners, gender transition made them question their own identity.

*'I started thinking of myself and considering whether I would want to have a sex change'*. (Algeria, 2013).

Or, imposed adherence to societal gender binaries that they (an individual or partner) otherwise may not have done.

*‘I need [x] to be clearly defined, you know?’ ‘It makes it easier for me [x] to navigate the world as a man when I’ve got a woman at home that I’m calling, that I’m loving’ (Theron & Collier, 2013).*

The influence of gender transition for the individual directly involved provides confirmation and satisfaction that their biological and psychological gender match. This extends beyond the individual however, and influences those that are intimately involved.

#### 3.3.1.2.2 Sexual orientation

Throughout the articles that were reviewed the issue of sexual orientation, and the labels used to define this was referred to. The sense of belonging or not belonging to a sexual orientation category was questioned and interviewees grappled with identification to one particular label. Specifically, individuals considered that if they identified with one sexual orientation label that this reflected and dictated sexual preferences.

*‘If I’m with a woman, does that mean I’m lesbian? Silly as labels may be, we all have a need to identify ourselves and society also wants to know what you are.’ (Alegria, 2013).*

This was mirrored in partners of trans individuals. As their partners transitioned they began to doubt and question their sexual orientation and what a label meant to them.

*‘If somebody had come to me and said to me was I gay or if I was straight I wouldn’t actually known the answer because it was almost as if I was in between’ (Theron & Collier, 2013).*

Determining a precise label was less of an issue for some individuals, and felt to be somewhat arbitrary.

*‘People asked me a lot whether my sexual identity was challenged by [transition], but I’m bisexual and to be honest, it wasn’t really. . . I didn’t leap over something huge’. (Brown, 2009).*

### 3.3.1.2.3 Social expectations

Social expectations and the roles that following gender transition, that individuals must adhere to (socially) accepted behaviours and ideologies were a reoccurring theme throughout the articles reviewed. The pressure to act and perform as ‘normal’ and identify within a certain gender or sexual orientation was evident. There was an apparent desire to resemble ‘typical’ functioning. This need to legitimise social expectations also extended to partners.

*‘One of my questions was what is expected of me’, ‘I got worried because if I get exposed to his world, what is expected of me?’ (Theron & Collier, 2013).*

The expectation to engage in normative social roles was strongly coupled with sexual orientation and specific labels. There was an apparent expectation that either following transition, or if in a relationship with a trans individual, that certain protocols and roles are followed.

*‘The lesbian community feels very much betrayed by me. . . finally I’ve got somebody that I love as a human being. . . but the community where I operate now is questioning, definitely’ (Theron & Collier, 2013).*

*‘they [ignorant cisgender, heterosexual] can say terrible things in front of you about gay or lesbian people. . . You’re invisible as a heterosexual person. . . I can kiss my partner in public spaces, hold his hands, lots of displays of public affection and people are sweet about it’. (Theron & Collier, 2013).*

This extended to family and cultural experiences and how transitioning influenced an individual’s position and identity.

*‘And when you know in our black culture when you go to funerals the men will have to be in a separate area and the women will be in separate areas and they will dress in a certain way, he’s part of that. . . no woman is allowed in there, no woman is allowed to eat that meant. But he is!’*  
(Theron & Collier, 2013).

Sexual identity and the corresponding attitudes and behaviours that are associated with socially accepted roles have an enormous impact on the transition process. The extent to which an individual reifies them influences the concept of their sexuality.

## **4. Discussion**

### **4.1 Overall discussion**

The aim of the current review was to appraise and synthesise the available qualitative research of sexual experiences during gender transition. Using thematic synthesis (Thomas & Harden, 2008), data from seven articles were organised into two analytical themes and the quality was appraised using the CASP tool for qualitative studies.

#### **4.1.1 Quality of the articles reviewed**

The seven articles included in the current review were appraised and deemed to be of satisfactory quality to include. The overall quality of the articles varied across the seven included; some articles (Alegria, 2013; Brown, 2010; Theron & Collier, 2013) provided a more comprehensive overview of the methods and attempts at understanding the clinical utility and limitations of their findings. The available qualitative literature examining sexuality, sexual experiences in a trans population is limited, and more broadly speaking the area in general is in development; these factors need to be considered when reviewing the available articles.

#### **4.1.2 Thematic synthesis**

The analytical themes conceptualised how sexuality altered, and was influenced by re-negotiating previous ‘norms’ and establishing an identity during the course of the transition process.

When re-negotiating previous ‘norms’ individuals considered their sexual preferences, sexual activity, and sexual development. Of particular importance was sexual development, likened to re-experiencing puberty. The obvious changes to and/or removal/addition of certain genitalia signifies a visible and poignant expression of gender and transition to an alternative gender (Dozier, 2005). Individuals, and partners described how they became familiar with their genitalia, experimenting and affirming their gender and the physical transition that had occurred.

The discovery of their bodies naturally had consequences for sexual preferences and sexual activity. Transitioning has implications for how ‘desirable’ a partner is (Cook-Daniels, 1998). How an individual relates to their partner and the concept of sex is co-constructed (Hale, 1995; Schleifer, 2006). The thematic synthesis suggests that as transition occurred sexual experimentation and engagement with stereotypical sexual practice was apparent. This was also reflected in the frequency of sexual activity as opportunities to be sexually active increased as physical gender and psychological gender became aligned. These findings are similar to previous reports that discuss that as transition progresses sexual preferences and activity became more gendered (Dozier, 2005) and that the couple are engaging in a process of ‘re-coding’ bodies and sexual preferences (Hale, 1995) as gender identity is established (Schrock & Reid, 2006). A range of factors are appraised and modified in relation to sexual preferences and activity as a consequence of gender transition.

Expression and establishing an identity was paramount during gender transition. The review highlighted this process was not only apparent for the individual transitioning but also, if applicable, to any partners. Previously, it has been stated that a more embodied trans partner (a partner of a trans individual that feels more connected with their body) leads to greater sexual intimacy (Nyamora, 2004). Subsequently, this can lead to more stable relationships being formed following transition (Lewins, 2002). The current thematic synthesis found that, consideration of key themes such as gender, sexual orientation, and social roles were fundamental when ascertaining and determining identity. Given that transitioning can put significant strain on a relationship (Devor, 1997) the review demonstrated that both the individual transitioning and their

partners carefully reflected on, following gender transition, defining their identities with respect to (labels of) sexual orientation and the social connotations.

Categories of sex, gender, and sexuality serve to constitute each other (Scleifer, 2006) and trans individuals have a diverse range of sexual identities (Moradi *et al.*, 2009) that are similar to a non-trans population (Barker & Richards, 2013). Not only is a process of re-negotiation occurring with regards to sexuality but also aspects that represent our identity and how we project ourselves to the world are considered. It is apparent that during gender transition not only are physical changes occurring but also substantial psychological changes.

## **4.2 Limitations**

To conduct the review reputable electronic databases were consulted and a reliable search strategy with replicable results was achieved (Shaw *et al.*, 2004). Although the aim of the review was not to reach an exhaustive list of all the available articles but rather to obtain conceptual saturation, there is always the potential that the quantity and relevance of the articles selected and included may have been enhanced by the use of additional search strategies (manual searching or reference chaining).

Using the CASP checklist any issues with quality were identified and considered when selecting and including data from the articles. It was decided that all of the final seven articles included provided valuable contributions to understanding sexual experiences during the gender transition process. Obviously this process is subjective and open to interpretation and therefore the final articles are open to bias. Attempts were made to minimise this through the trainee completing this process in collaboration with their supervisor.

The final seven articles included in the review integrated findings from a variety of sources in order to maximise variability and thicken the narrative and themes regarding sexual experiences during the gender transition process. It should be acknowledged that the literature reviewed was limited to individuals that subscribed to the concept of gender binaries, as in they all wished to transition. There is a range of gender trajectories and thus it is important to appreciate the scope and not constrain our

understanding of gender to the concept of either male or female. Obviously, the current review is indicative of the available literature and societal discourses that surround gender and sexuality but it should be noted that this limits the findings discussed.

### **4.3 Clinical implications**

The findings of this review have revealed the complex interplay of factors related to sexuality during the transition process. This has clinical applicability for professionals working with trans individuals or individuals involved in intimate relationships with them. Prior to considering specific issues for professionals to consider it is imperative to ensure that an open and safe environment is available for individuals to discuss their sexuality and gender identity and the transition process. The importance of the subject is often underestimated, inadequately addressed and avoided by professionals. In the first instance, it is crucial to provide a supportive space that individuals feel able to freely communicate their desires and expectations.

Identity development and support regarding sexual experiences are important in a clinical context and professionals can help individuals explore the meaning and importance of this during the gender transition process. Individuals will experience a range of losses and gains that need to be considered with compassion, sensitivity and the wider contextual implications. This extends beyond the individual undergoing gender transition but also to those that are closely involved. The findings from the review are potential discussion points to help explore underlying thoughts and behaviours that may be occurring and need further exploration.

### **4.4 Further research**

The current thematic synthesis review highlighted the process of establishing sexuality as a consequence of transitioning to an alternative expression of gender. Qualitative studies in this area are scarce and any additional research would enhance the already (albeit limited) available body of literature. Given the multiple factors involved in gender transition and the multi-faceted nature of sexuality it would be judicious to examine these in further detail to help contextualise any changes occurring. For example, consideration of both genders, partnership status, how far in the transition process the individual is and the biological, social and psychological facets of sexuality.

Furthermore, as mentioned, a limitation of this review is the dependence on gender binaries. It would be relevant to consider contemporary issues such as gender non-binaries and the influence of gender fluidity on sexuality. Given that trans research, and in particular qualitative research in this area, is in its infancy there is a range of applicable and beneficial studies that can be carried out. The appropriate sensitivity needs to be applied when working with marginalised populations. In the future as qualitative research develops in this particular area (trans individuals and sexuality) and reviews of the available literature are required, a more interpretative approach (such as meta-ethnography) may be more appropriate to consider and develop a theoretical understanding.

#### **4.5 Conclusion**

The current synthesis presented processes that are occurring regarding changes in sexuality during gender transition. The findings suggest that re-negotiation of previously accepted norms and establishing a secure identity is fundamental during gender transition. Although there are limitations regarding quality and the subjective influence of selecting articles for a thematic synthesis, the review provides an early indication of the experiences and qualitative factors regarding sexuality and any changes that may occur during gender transition. This has important clinical implications for professionals working in this area to be mindful and reflective of.



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## **Section two: Empirical report**

### ***Psychological wellbeing during cross-sex hormone transition: A mixed methods study***

By

Meghan Dory Thurston

## **Abstract**

### *Introduction*

Cross sex hormone transition (CSH) is often the primary medical intervention offered to individuals to alleviate distress caused by Gender Dysphoria (GD). Psychological wellbeing has been associated with GD however the impact of CSH or the reasons underpinning any change that may occur has not been examined.

### *Method*

Sixty individuals diagnosed with GD completed five measures pre and 12 months post CSH. The constructs examined were: anxiety; depression; self-esteem; social support; interpersonal difficulties; and body dysphoria. Statistical analysis explored the prevalence, the relationship between the variables; whether independent variables predicted the variance in the dependent variables; and whether there was a change in any of the constructs over the 12-month period. The findings were supplemented with photo-elicitation interviews from two individuals detailing their experiences of their psychological wellbeing during CSH.

### *Results*

Anxiety, depression, and self-esteem were all significantly higher compared to non-clinical and clinical population norms. Associations were found between all of the variables and self-esteem and interpersonal difficulties were the strongest predictors of anxiety, and interpersonal difficulties for depression. There was a significant change in self-reported levels of self-esteem and body dysphoria across the 12-month period. Interview data revealed three super-ordinate themes including: discovery; self-protection; and a critical stance and responsibility.

### *Discussion*

CSH transition impacts an individual's psychological wellbeing. It is important to consider when working clinically with GD the psychological processes that are occurring given the enormity and length of the transition process. Future research may aim to consider the impact of other medical interventions for GD and develop a deeper understanding of individuals' experiences.



## **1. Introduction**

Gender identity is how we conceptualise ourselves existing along a continuum of masculinity to femininity (American Psychological Association (APA), 2006) and is typically influenced by cultural and social discourses. Our gender identity is often associated with our sex assigned at birth, however, for some, this is not the case. Some individuals seek to transition to align their psychological gender and sex assigned at birth. The World Professional Association for Transgender Health (WPATH) Standards of Care (SoC) (currently in the seventh edition) has outlined a recommended treatment pathway for individuals wishing to pursue gender transition (Coleman *et al.*, 2012). In particular, the SoC suggests guidance on the minimum standards for medical and psychological management.

### **1.1 Diagnosis**

Currently, a diagnosis of either GD<sup>1</sup> (APA, 2013), or transsexualism (WHO, 1992), facilitates access to healthcare. GD (APA, 2013) is defined as the discomfort experienced as a result of the discrepancy between an individual's gender identity and physical sex assigned at birth. Transsexualism (International Classification of Diseases (ICD), World Health Organisation (WHO), 1992) is defined as the desire to pursue medical interventions to become physically congruent with an individual's preferred gender. In the latest version of the DSM (DSM-5), 'Gender Identity Disorder' was reclassified to GD in an attempt to shift the focus away from a disorder residing in the individual but rather an emphasis on the distress experienced as a result of gender identity. A comparable change in nomenclature may occur to the diagnostic terms and criteria for transsexualism in the upcoming version of the ICD, (WHO), 1992).

### **1.2 Medical and psychological interventions**

Knowledge and understanding of GD has grown substantially over the years and the interventions outlined in the SoC have evolved to reflect this. Typically, for individuals wishing to transition from appearing physically male to female (MtF) or female to male (FtM) CSH (including a social role change), and SRS is recommended (Ahmad *et al.*,

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<sup>1</sup> Due to the recent changes in diagnostic labels and criteria, the term GD will be used throughout this thesis to refer to the distress experienced as it is more contemporary.

2013; Wylie *et al.*, 2014). These interventions have been demonstrated to alleviate GD (Anton, 2009). However, for some, either CSH or SRS or neither intervention is required (Bockting, 2008; Bockting & Goldberg, 2006). Psychological support can help assimilate an individual's gender identity with their sex assigned at birth, without the need to medically masculinise or feminise aspects of their body. For example, social transition may lessen the distress experienced as a result of the incongruence felt between gender identity and sex assigned at birth. For others, a combination of psychological and medical support may be appropriate such as social transition and SRS, or social transition and CSH. Intervention options and combinations are becoming increasingly more individualised as the concept of gender fluidity and those that transcend the binary are becoming more prominent (Feinburg, 1996)

Below is a brief list of the interventions recommended by the WPATH and typically available from gender identity services:

- Social transition;
- CSH;
- SRS;
- Psychotherapy;
- Social support and advocacy;
- Voice and speech therapy;
- Hair removal;
- Non surgical options – breast binding, penis tuck, hip padding, buttock padding;
- Change of documentation.

The SoC provides guidance on (recommended) minimum time frames regarding CSH and social role change prior to SRS (Coleman *et al.*, 2012). At present, the majority of trans research has been obtained from Western cultures that socially endorse a gender binary. A range of cultural factors influences our perception of gender identity and vary dependant on attitudes, language, access to care, finances, type and number of healthcare professionals, and legal and policy issues (Winter, 2009). Given the interplay

between medical and psychological interventions available, it is important to consider the psychological impact of transitioning.

### **1.3 Psychological wellbeing and gender transition**

Gender transition is complex, extensive, and involves a multitude of decisions and physical changes with the overall aim of supporting an individual to express their chosen gender identity. These choices and when they are made undoubtedly have an influence on psychological wellbeing, most notably, preceding, during, and following gender transition.

#### **1.3.1 Prior to gender transition**

It has been found that even prior to any medical or psychological interventions to facilitate gender transition, the realisation and acknowledgement that your psychological gender is not synonymous with your sex assigned at birth has an impact psychologically (Morrow, 2006). Often, individuals disclose to others (family, friends, and healthcare professionals) about their desire to transition and this can trigger emotional reactions for the individual wishing to transition and those close to them (Lark & Croteau, 1998). Furthermore, when seeking support regarding gender transition it has been found that individuals with GD often experience verbal harassment, refusal of care, and may have to educate healthcare professionals about the gender transition process and services available (Grant *et al.*, 2011). Moreover, Lucksted (2004) found that clinicians may offer a purely medical model of support and overlook the psychological impact or opt not to explore how gender can be expressed due to their own prejudices, social and cultural influences.

#### **1.3.2 Social transition**

Typically, when an individual decides to transition to their desired gender they assume extensive social changes, for example, a change of name, preference for certain pronouns, social role, choice of clothing, appearance, and documentation change. It has been found that during social transition individuals experience devaluation and oppression as a consequence of the social stigma attached to gender nonconformity (Mizock & Lewis, 2008). This marginalisation has been noted to occur at an individual,

systemic, and organisational level suggesting it can permeate many areas of an individual's life (Lind, 2004). Furthermore, it has been found that the psychological impact of these experiences does not only effect the individual that has been subject to such abuse but also others that are close to them, partners, children, relative, friends, and work colleagues, for example (White & Ettner, 2004).

### 1.3.3 Medical interventions

The WPATH recommended medical and psychological interventions aim to alleviate the distress caused as a result of an individual's gender identity being incongruent with their sex assigned at birth. Evidence regarding the psychosocial functioning in adults with GD that had received SRS (including a period of time receiving CSH) was systematically reviewed by Murad *et al.* (2009) and it was found that there was generally an improvement in psychosocial functioning and quality of life. Dhejne *et al.* (2016) systematically reviewed the literature including both CSH and SRS and found that the prevalence of psychological difficulties (as measured by: affect intensity measure (AIM); short anger situation questionnaire (SAQ); Minnesota multiphasic personality inventory; symptom checklist 90; Utrecht gender dysphoria scale; perceived stress scale (PSS); Zung self rating depression scale; inventory of interpersonal problems (64); and Freiburg personality inventory) was higher overall in a GD population as compared to cisgender controls, and that overall this improved following CSH and/or SRS. Of the 12 studies included in the longitudinal component of the review, nine included samples where individuals had received CSH and SRS. It is important to recognise that from this review the direct impact of single medical intervention cannot be determined. Dhejne *et al.* (2016) discussed how the interventions included in the review (advances in SRS with regards to both functional and aesthetic outcomes) and the conceptualisation of gender identity has transformed over the years and how this may influence psychological wellbeing and the overall findings.

Although these two reviews have demonstrated positive psychological outcomes following medical interventions, other studies have found this is not exclusively the case. Pfafflin and Junge (1998) reviewed 70 studies examining psychological outcomes following SRS across a 30-year period and found that SRS resolved GD but that some individuals (approximately one to two per cent) reported regret. The lack of social

support, and disappointment with the aesthetical and functional changes have been identified as risk factors for negative outcomes following SRS (Cohen-Kettenis & Pfafflin, 2003; Pfafflin, 1992; Lawrence, 2003; Smith, *et al.*, 2005).

#### **1.4 Rationale for the current study**

The available literature highlights the impact gender transition has on psychological wellbeing (Dhejne *et al.*, 2016; Murad *et al.*, 2009). Studies to date have adopted a prospective pre/post design to determine the impact of one or more medical interventions on psychological wellbeing moreover they have used self-report outcome measures to determine any change. Focusing on the psychological impact of one specific medical intervention and supplementing this with an understanding of the experiences that are occurring has not been studied. The current study aims to explore the prevalence of anxiety and depression, and how this may be related to other psychological variables such as body dysphoria, self-esteem, interpersonal difficulties, and social support, and to enhance this with an understanding of the experiences that are occurring during CSH.

#### **1.5 Aims and objectives**

The overall objective of the present study was to determine the psychological impact of CSH.

Using self-report data the quantitative aims were:

- To examine the extent to which anxiety, depression<sup>2</sup>, self-esteem, interpersonal functioning, social support, and body dysphoria are evident prior to starting CSH compared to clinical and non-clinical norms.
- To examine whether there is an association between anxiety, depression, self-esteem, interpersonal functioning, social support, and body dysphoria prior to starting CSH.

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<sup>2</sup> The terms 'anxiety' and 'depression' have been used as they are the constructs being measured by the HADS questionnaire and accepted in academic reports.

- Whether self-esteem, interpersonal functioning, social support, and body dysphoria are predictive of variance in anxiety and depression prior to starting CSH.
- Whether a change occurs in anxiety, depression, self-esteem, interpersonal functioning, social support, and body dysphoria during the first year of CSH.

Using photo elicitation interviews the qualitative aim was:

- To develop an understanding of the impact of one year of receiving CSH has on psychological wellbeing. To ascertain, the experience of psychological wellbeing, in particular anxiety, depression, self-esteem, body dysphoria, interpersonal functioning, and social support, and explore how this interacts with CSH.

## **2. Method**

### **2.1 Overview**

An embedded mixed methods design was adopted. This means, the qualitative data set was used to provide a context to the quantitative data set (Creswell *et al.*, 2003), both addressing different but complementary research questions. The quantitative element included longitudinal questionnaire data. Questionnaires were posted to individuals prior to starting CSH (T1) and again after 12 months on CSH (T2). Independent variables were: self-esteem, social support, interpersonal functioning, and body dysphoria. Dependent variables were: anxiety and depression. The qualitative element included a photo elicitation interview analysed using interpretative phenomenological analysis (IPA). The aim was to find out more about the experiences of psychological wellbeing during the first year of CSH.

### **2.2 Ethical considerations**

The mixed methods research proposal was initially peer reviewed by course staff at the University of Leicester and the service user reference group affiliated to the University of Leicester. The quantitative study formed part of a larger ten-year study and was granted ethical approval via the NHS Local Research Ethical Committee (LREC) and Research & Development (R&D) department (Appendix G). The qualitative study was granted ethical approval via the NHS LREC and the R&D department (Appendix H and I).

### **2.3 Research context**

The research was carried out in a national specialist multi-disciplinary service for individuals with GD and/or transsexualism. The service provides specialist assessment, medical treatment, psychological support, and speech and language support to individuals. Referrals can be made to the service via mental health services or General Practitioners (GP).

## **2.4 Participant identification and selection**

Participants that had received a diagnosis of GD and/or transsexualism, and were receiving CSH [up to 12 months, this time scale was decided as after this time point individuals are eligible according to WPATH recommended guidelines for SRS] were identified as being suitable to be included in the study. Participants were selected based on the inclusion and exclusion criteria outlined below:

### **2.4.1 Inclusion criteria:**

- Patients who fulfilled the criteria for a diagnosis of GD (APA, 2013) and/or transsexualism (WHO, 1992) following the assessment;
- Patients who have been on CSH treatment for up to 12 months, prescribed via the service;
- Those aged over 18 years of age; and
- Those who have a good understanding of written English in order to be able to complete the questionnaire pack and participate in an English-speaking photo elicitation interview.

### **2.4.2 Exclusion criteria:**

- Patients who have been on CSH treatment not prescribed via the service e.g. self-prescribed.



## **2.5 Quantitative**

### **2.5.1 Power analysis**

A priori power analysis for multiple regression and paired t-tests was completed to determine a suitable sample size. For both power analyses a significance level of 0.05 was identified as suitable to avoid Type I errors (Cohen, 1992) and power was set at .80.

For multiple regression (four predictors) in order to achieve a medium effect size (0.15) a sample size of 85 is recommended. For paired samples t-test (two tailed) in order to achieve a medium effect size (.03) a sample size of 34 is recommended.

### **2.5.2 Participant recruitment**

Data collection is still on-going as the quantitative element forms part of a larger ten-year study. Data included in this write-up was collected between March 2014 and March 2016. Participants were registered as patients of the service where the study was conducted. Participants that met inclusion and exclusion criteria were identified from clinicians' caseloads at the service.

### **2.5.3 Procedure**

Potential participants were identified from clinicians' caseloads and invited to participate in the study. Participants were provided a questionnaire pack. All questionnaire packs contained a Patient Information Sheet (PIS) and consent form (Appendix J) which detailed explicitly the aims and nature of the study, why they were approached, what was involved, and the study implications. Contact details of the research team and patient advice liaison service were detailed in the PIS.

If they agreed to take part they were asked to complete the consent form and questionnaire pack that forms part of the larger NOSTI study and includes the HADS, RSE, MSPSS, IIP, and HBDS questionnaires specific to this study. Participants could return their completed questionnaire packs either to the administration team or via the addressed and pre stamped envelope provided. This procedure was repeated at one-year post CSH.

#### 2.5.4 Measures

The questionnaire pack contained a total of 11 questionnaires. The following questionnaires were used for the current study:

##### *2.5.4.1 Hospital anxiety and depression scale (HADS)*

The HADS (Zigmond & Snaith, 1983) is a 14-item scale that measures anxiety and depression; seven of the items relate to anxiety and seven relate to depression. The items are rated on a 4-point scale (0-3). Some questions are reversed scored. Higher scores indicate higher levels of anxiety and depression. The HADS has demonstrated good reliability (Cronbach's  $\alpha = .9$ , Kjærgaard *et al.*, 2013). Cronbach's alpha for the current study was  $\alpha = .65$ .

##### *2.5.4.2 Rosenberg self esteem scale (RSE)*

The RSE is a self-esteem measure widely used in social-science research (Crandal, 1973; Rosenberg, 1965). It is a ten-item Likert-type scale with items answered on a four-point scale — from strongly agree to strongly disagree. Five of the items have positively worded statements and five have negatively worded ones. The scale measures state self-esteem by asking the respondents to reflect on their current feelings. The Rosenberg self-esteem scale is considered a reliable and valid tool for self-esteem assessment (Cronbach's  $\alpha = .91$ , Sinclair *et al.*, 2010). Cronbach's alpha for the current study was  $\alpha = .44$ .

##### *2.5.4.3 Multidimensional scale of perceived social support (MSPSS)*

The MSPSS (Zimet *et al.*, 1988; Zimet *et al.*, 1990) was used to measure perceived social support. The scale comprises three subscales: family support, friend support, and support from a significant other. Participants rate 12 items on a scale of one to seven. The total mean score is calculated and subscales are based on mean values, with lower scores indicating less perceived social support and higher scores indicating greater perceived support. The MSPSS has been used in numerous studies with diverse samples (adolescents, students, adults, clinical and non-clinical samples, cross-cultural samples)

and has consistently demonstrated good psychometric properties (Cronbach's  $\alpha = .9$ , Zimet *et al.*, 1990). It has also been used in transgender populations (e.g. Colton Meier *et al.*, 2013a; Colton Meier *et al.*, 2013b). Cronbach's alpha for the current study was  $\alpha = .95$ .

#### *2.5.4.4 Inventory of interpersonal problems (IIP – 32)*

The IIP-32 (Barkham *et al.*, 1996) is a self-report instrument that identifies a person's most salient interpersonal difficulties. Even if a person begins a clinical interview by describing uncomfortable feelings or distressing thoughts, a large number of interpersonal problems usually surface within the first session. Understanding and resolving interpersonal problems is considered an important step for alleviating common symptoms and syndromes, including depression and anxiety. The IIP has demonstrated good reliability across all subscales: hard to be sociable ( $\alpha = .90$ ); assertive ( $\alpha = .83$ ); involved ( $\alpha = .78$ ); supportive ( $\alpha = .81$ ); Too open ( $\alpha = .79$ ); caring ( $\alpha = .73$ ); aggressive ( $\alpha = .86$ ); dependent ( $\alpha = .68$ ) (McEvoy, 2012).

#### *2.5.4.5 Hamburg body drawing scale (HBDS)*

The HBDS (Appelt & Strauss, 1988) was originally developed to test some specific hypotheses within a psycho-endocrinological study of women suffering from hirsutism. Women suffering from this hormonal dysfunction (the chief symptom of which is the occurrence of masculine-type body hair growth) seemed to experience severe distress about various parts of their body. This distress may have far-reaching negative consequences for the patient's self esteem and even may lead to an avoidance of any social activity. Individuals record on a scale how they perceive certain (34 in total, and an overall score) aspects of their body on a scale of one to five. Cronbach's alpha for the current study was  $\alpha = .91$ .

#### *2.5.5 Data collection*

Questionnaire data was collected weekly and input to the database. Questionnaires were then stored securely in the participant's medical file at the service. Data was extracted from the database and input to a file suitable for use with Statistical Package for the Social Sciences (SPSS) version 22.

#### 2.5.6 Plan of analysis

All data analysis was completed using SPSS version 22. Missing data was excluded, and descriptive analysis was completed on the demographic data. *z* tests were carried out to determine if there was a statistical difference between sample means and non-clinical norms. The relationship between anxiety and depression, and social support, body dysphoria, interpersonal functioning, and self esteem were investigated using Pearsons correlations. A multiple regression was completed on any significant correlations to assess the predictive value of anxiety and depression. Paired samples *t*-test and Wilcoxin signed ranks test were conducted on each questionnaire to determine whether there was any statistical change in reported levels of anxiety, depression, social support, body dysphoria, interpersonal functioning, and self esteem.

### 2.6 Qualitative

#### 2.6.1 Photo elicitation interviews

One method used to facilitate discussion about potentially sensitive and personal topics is the ‘photo elicitation interview’. This method does not replace the interview but enhances it by using photographs to act as a medium to assist recall of memories and encourage open dialogue (Clark-Ibanez, 2004). This method has more often been used in physical health research and has been valued for fostering a more dynamic discussion, eliciting richer data, and facilitating discussion around novel or abstract themes (Hurworth *et al.*, 2005). There is the option for the researcher of interviewee to take and select the photographs used in the interview. In the current study, this method provided an innovative approach to enhancing the understanding of the underlying psychological processes occurring during CSH. It was decided due to the personal nature of gender transition interviewees would take and select the photographs they would like to use in the interview ensuring their individual experiences were captured.

#### 2.6.2 Method of analysis

All semi-structured interviews were transcribed by an independent professional. The transcriptions were coded and anonymised when returned to the researcher. All transcripts were analysed using the recommended six stage process as outlined by Smith

*et al.* (2009), see Appendix K for examples. The research was conducted from a critical realist position (Appendix L).

### 2.6.3 Sample size

The IPA approach aims to ensure a detailed analysis of individual cases rather than generalising across cases. Previous IPA studies have included sample sizes that range from a single case study (Eatough & Smith, 2006) up to six (Lewis *et al.*, 2015). Previous photo elicitation interview studies have included a sample size of between eight (Amrita *et al.*, 2013) and ten (Wells *et al.*, 2013). Given the limited research in this area and considering the detailed IPA approach it was anticipated that a sample size of two to six would be sufficient.

### 2.6.4 Materials

Interviewees were provided with a digital camera, memory card, and batteries to enable them to capture photos that were representative of their psychological wellbeing during CSH transition. A topic guide was created and used during the semi-structured interview to facilitate a dialogue about interviewee's experiences of their psychological well being during CSH (see Appendix M).

### 2.6.5 Interviewee recruitment

Interviewees were registered as patients of the service where the study was conducted. Interviewees that met inclusion and exclusion criteria were identified from clinicians' caseloads at the service. At the next scheduled appointment, interviewees were invited to be involved in the study, and were provided with the invitation letter, PIS, and consent form (Appendix N). Interviewees then telephoned the researcher and were able to have any questions about the study answered, and to arrange a pre-interview meeting. Four individuals expressed an interest in taking part in the study and two were interviewed.

### 2.6.6 Procedure

Interviewees attended a pre-interview meeting where consent was taken and the camera was provided to them. The interviewees were required to take photos related to their

psychological well being during CSH. They were advised they could photograph anything and take as many photos as they wanted to.

The researcher and interviewee then arranged a suitable time and date to conduct the semi-structured interview. One interviewee preferred this to coincide with their next clinic appointment and the other interviewee came in on a separate occasion.

All semi-structured interviews were conducted at the service and all were audio recorded. At the start of the semi-structured interview interviewees were required to select photographs they wanted to talk about, they were allowed to select as many as they felt appropriate. The topic guide was then used during the semi-structured interview alongside the photographs to facilitate conversation. Following the completion of the semi-structured interviews a reflective summary of the interview was written.

#### 2.6.7 Quality and reflexivity

To ensure quality and reflexivity was included in the current study the following strategies were adhered to. For quality, the researcher attended teaching and training relevant to using the IPA analysis method to enable them to feel knowledgeable and competent to design the topic guide and conduct the analysis. Analysis was continually discussed within a peer supervision group and in collaboration with the researcher's supervisor. For reflexivity, the researcher maintained a reflective journal that included perceptions, engagement, and insights during the research journey and in particular following each interview (see Appendix O for a timeline of the research process).

### **3. Results**

#### **3.1 Quantitative**

##### **3.1.1 Sample**

###### *3.1.1.1 Sample size*

A total of 60 questionnaire packs were completed at both T1 (pre CSH, assessment stage), and T2 (12 months on CSH) (see Appendix P for a breakdown of sample sizes for each questionnaire at T1 at T2). Cases were only excluded when the data were missing for a specific statistical analysis (cases were excluded pairwise). This meant any missing data did not bias the statistical analysis.

###### *3.1.1.2 Demographic information*

All individuals referred to the service received a questionnaire pack. A total of approximately 750 questionnaires were posted to participants during the recruitment time frame. Out of the (approximately) 750 posted out, approximately 700 were returned, approximately 450 received or had a diagnosis, and 60 had been on CSH for 12 months by March 2016. The rate of attrition from T1 to T2 is representative of the fact that individuals did not complete assessment, did not receive a diagnosis, dropped out or declined services prior to 12 months.

Demographic information for the participants included in the sample are summarised in Table 1. The sample used in the current study consisted of 21 biological females and 37 biological males, two individuals did not state their biological gender. The mean age was 37.13 ( $\pm$  16.39) with a range of 17 – 71 years old. There are very few published statistics about trans individuals and therefore it is difficult to ascertain whether the current sample is representative of the population. The Office for National Statistics has produced a position paper with regard to capturing demographic information in a trans population (ONS, 2009).

**Table 1: Demographic characteristics for the sample used in the current study.**

Variable	Total Sample ( $N = 60$ )
<b>Age (years)</b>	
<i>Male</i>	
Mean ( $SD$ )	43.57 ( $\pm 15.98$ )
<i>Female</i>	
Mean ( $SD$ )	27.33 ( $\pm 11.33$ )
<b>Biological Gender</b>	
Male	37
Female	21
<b>Ethnicity</b>	
White	55
Mixed	1
Indian	1
Other	2
Did not state	1
<b>Marital Status</b>	
Single	35
Divorced	11
Married	7
Civil Partnership	4
Widowed	1
Did not state	2



### 3.1.2 Evaluation of assumptions

In order to determine whether the data were normally distributed and appropriate for parametric statistical analysis, the following analyses were conducted on the pre CSH data: Kolmogorov-Smirnov test; histograms; kurtosis and skewness; normal Q-Q plot; detrended normal Q-Q plot; and five per cent trimmed means. The Kolmogorov-Smirnov test was preferred over the Shapiro-Wilk due to the sample size exceeding 50 cases (Clark-Carter, 2010; Harris, 1985). The results of the Kolmogorov-Smirnov are presented in Appendix Q. Assumptions were not met for HADS Depression, and MSPSS. HADS depression and the MSPSS were positively skewed and transformed using a 'square root transformation' (Pallant, 2013; Tabachnick & Fidell, 2007).

The transformations are presented in Appendix Q. Normality did not improve for HADS depression and MSPSS. Given the sample size it was decided it was suitable to continue with parametric statistical analysis using the untransformed data for the regression analysis (Clark-Carter, 2010; Elliot & Woodward, 2007) and non-parametric statistical analysis for pre and post comparisons.

### 3.1.3 Statistical analysis

#### *3.1.3.1 Prevalence of variables pre CSH transition*

To address the first research question, how prevalent are anxiety, depression, self-esteem, interpersonal functioning, social support, and body dysphoria prior to CSH descriptive data was analysed and compared to available clinical and non-clinical data. The means and standard deviations for these variables are presented in Table 2 along with comparable non-clinical data, computed  $z$  tests,  $p$  values, Cronbach's alpha (a coefficient of internal consistency), and the number of individuals that fell within the clinical 'normal' range. To establish whether the means were statistically significant  $z$  tests were carried out when possible.

**Table 2: Psychological wellbeing of the current sample and clinical and non-clinical comparison means.**

ble	Pre CSH Mean ( <i>SD</i> )		Non-Clinical Comparable Mean ( <i>SD</i> )	Clinical Comparable Mean ( <i>SD</i> )	<i>z</i> value	<i>p</i> value	% in 'non-range'
S Anxiety	7.72 (3.24) Range = 2-17		6.14 (3.76) <sup>1</sup>	9.0 (4.0) <sup>3</sup>	NC = 3.25 C = -2.49	NC = .001 C = .01	50
S Depression	6.50 (2.73) Range = 2-12		3.68 (3.07) <sup>1</sup>	5.20 (4.20) <sup>3</sup>	NC = 7.07 C = 2.37	NC = .0001 C = .02	67
Self-esteem	17.30 (6.91) Range = 3 - 30		22.62 <sup>2</sup> (5.80)	Unavailable	NC = -7.10	NC = .0001	50
SS Social Support	59.98 (17.50) Range = 12 - 84		Unavailable	Unavailable	-	-	-
Interpersonal tioning	Sociable	1.62 (1.16)	Unavailable	Unavailable	-	-	-
	Assertive	1.60 (1.10)					
	Aggressive	0.79 (0.87)					
	Open	1.49 (0.90)					
	Caring	1.31 (0.86)					
	Supportive	0.70 (0.88)					
	Involved	1.32 (1.10)					
	Dependant	1.13 (0.93)					
	Total	1.17 (0.65)					
	Range = 0 – 4 for all subscales						
S Body Dysphoria	3.90 (0.92) Range = 1 - 5		Unavailable	Unavailable	-	-	-

<sup>1</sup> Crawford *et al.*, (2001); <sup>2</sup> Sinclair *et al.* (2010); <sup>3</sup> Gomez-Gil *et al.* (2011); <sup>4</sup> = Overall HADS Cronbach  $\alpha$ ; NC = Non-Clinical; C = Clinical

#### 3.1.3.1.1 HADS anxiety

The total anxiety score fell on the clinical cut off (7) for the ‘normal’ to ‘mild’ range (see Appendix R for a breakdown of how many participants are in each category). The sample reported statistically significantly higher levels of anxiety than the non-clinical and significantly lower than the clinical comparisons (see Table 2).

#### 3.1.3.1.2 HADS depression

The total depression score fell in the ‘normal’ range, for both the sample used in the study and the non-clinical comparisons (see Appendix R for a breakdown of how many participants in each category). The sample, despite falling in the ‘normal’ range reported statistically significantly higher levels of depression in relation to the non-clinical and clinical comparisons (see Table 2).

#### 3.1.3.1.3 RSE self-esteem

There are no discrete cut-off points for the RSE, typically a score between 15 – 25 is considered ‘normal’ self esteem. The sample reported statistically significantly lower levels of self-esteem as compared to the non-clinical comparable mean (see Table 2).

#### 3.1.3.1.4 IIP interpersonal functioning, MSPSS social support, and HBDS body dysphoria

There are no established cut offs for either IIP, MSPSS or the HBDS and currently there are no non-clinical or clinical comparable means. Higher levels on the MSPSS indicate better perceived social support with the total ranging from 12 - 84. Higher levels on the HBDS indicate higher dissatisfaction with an individual’s body with a maximum average score of five. Higher scores on the IIP indicate higher levels of interpersonal difficulties with a maximum average score of four.

#### 3.1.3.2 Relationship between variables pre CSH transition

The second research question asked if there was a relationship between psychological wellbeing (anxiety and depression), and self-esteem, social support, interpersonal functioning, and body dysphoria. A Pearson-product moment correlation was

completed. The findings are presented in Table 3 (see Appendix S for full inter-correlation table).

**Table 3: Correlational analysis of the relationship between psychological wellbeing (anxiety and depression) and self-esteem, social support, interpersonal functioning, and body dysphoria.**

	HADS Anxiety	HADS Depression
RSE Self-esteem	-.70**	-.50**
MSPSS Social Support	-.30*	-.40**
IIP Interpersonal Functioning	.80**	.53**
HBDS Body Dysphoria	.30*	.40**

\*\* . Correlation is significant at the .01 level (2-tailed).

\* . Correlation is significant at the .05 level (2-tailed).

The analyses suggest that there was a significant association between anxiety and self-esteem, social support, interpersonal functioning, and body dysphoria, and depression, and self-esteem, social support, interpersonal functioning, and body dysphoria. All correlations were significant at the  $p < .05$  level.

The following guidelines were used to determine the strength of the relationship (Cohen, 1988): for a small relationship,  $r = .10 - .29$ ; for a medium relationship,  $r = .30 - .49$ ; and for a large relationship,  $r = .50 - 1.0$ .

#### 3.1.3.2.1 Pre CSH transition anxiety

There was a large negative significant relationship between self-esteem and anxiety ( $r = -.70, p < .01$ ), medium negative significant relationship with social support ( $r = -.30, p < .05$ ), large positive significant relationship between interpersonal functioning ( $r = .80, p < .01$ ), and medium positive significant relationship between body dysphoria ( $r = .30, p < .05$ ). This suggests lower self-esteem, lower social support, higher levels of interpersonal difficulties, and higher body dysphoria is associated with higher levels of anxiety.

#### 3.1.3.2.2 Pre CSH transition depression

There was a large negative significant relationship between self-esteem and depression ( $r = -.50, p < .01$ ), medium negative significant relationship social support ( $r = -.40, p < .01$ ), large positive significant relationship between interpersonal functioning ( $r = .53, p < .01$ ), and medium positive significant relationship between body dysphoria ( $r = .40, p < .01$ ). This suggests lower self-esteem, lower social support, higher levels of interpersonal difficulties, and higher body dysphoria is associated with higher levels of depression.

#### 3.1.3.3 Predictors of anxiety and depression pre CSH transition

The third research question focused on determining to what extent self-esteem, social support, interpersonal functioning, and body dysphoria predicted the variance in psychological wellbeing (anxiety and depression) using a multiple regression with data from prior to receiving CSH.

The data were analysed for suitability for a multiple regression analysis, sample size, multicollinearity, normality, linearity, and homoscedasticity were completed. The analysis indicated that the data met the assumptions for a standard multiple regression (see Appendix T for details). A sample size of 53 is considered appropriate for standard multiple regression analysis to produce reliable results (Clark-Carter, 2010; Harris, 1985). The dependent variables were: anxiety; and depression, and the independent variables were: self-esteem; social support; interpersonal functioning, and body dysphoria. The results are presented in Table 4.

**Table 4: Multiple regression analysis of relationship between psychological wellbeing (anxiety and depression) and self-esteem, social support, interpersonal functioning, and body dysphoria.**

	Dependent Variables					
	HADS Anxiety			HADS Depression		
	$\beta^1$	<i>p</i>	$R^2$	$\beta^1$	<i>p</i>	$R^2$
RSE Self-esteem	-.41	.01**	.70	-.13	.45	.33
MSPSS Social Support	.01	.88		-.13	.31	
IIP Interpersonal Functioning	.57	.01**		.34	.04*	
HBDS Body Dysphoria	-.14	.15		.13	.36	

<sup>1</sup>  $\beta$  = Standardised coefficient

\*\* = Correlation significant at .01

\* = Correlation significant at .05



#### 3.1.3.3.1 Pre CSH transition anxiety

Standardized R square score indicated that self-esteem, social support, interpersonal functioning, and body dysphoria accounted for 70% of the variance in the HADS anxiety scores. Analyses revealed that self-esteem and interpersonal functioning were the strongest and statistically significant ( $p<.01$ ) contribution to HADS anxiety. Social support and body dysphoria made the least contribution and were not significant.

#### 3.1.3.3.2 Pre CSH transition depression

Standardized R square score indicated that self-esteem, social support, interpersonal functioning, and body dysphoria accounted for 33% of the variance in the HADS depression scores. Analyses revealed that interpersonal functioning was the strongest and statistically significant ( $p<.05$ ) contribution to HADS depression. Self-esteem, social support, and body dysphoria made the least contribution and were not significant.

#### 3.1.3.4 *Impact of CSH on psychological wellbeing*

The fourth research question aimed to examine whether there was any change in anxiety, depression, self-esteem, social support, interpersonal functioning, and body dysphoria during the first year of CSH treatment using paired samples t-test and wilcoxin signed ranks test. Data from prior to CSH treatment was paired with one year on CSH treatment for each variable. The results are presented in Table 5 and Table 6.

**Table 5: Paired samples t-test for pre and 12 months post CSH.**

	Pre CSH	12 months Post CSH		
	Mean ( <i>SD</i> )	Mean ( <i>SD</i> )	<i>t</i> value	<i>p</i>
HADS	7.72	7.18 (2.62)	1.33	.19
Anxiety	(3.24)			
RSE Self- esteem	17.30 (6.91)	19.63 (6.00)	-2.74	.01
IIP	1.17	1.14(0.53)	0.40	.73
Interpersonal Functioning	(0.65)			
HBDS Body Dysphoria	3.90 (0.92)	3.42 (1.61)	2.26	.03

**Table 6: Wilcoxin signed rank test for pre and 12 months post CSH.**

	Pre CSH	12 months Post CSH		
	Mean ( <i>SD</i> )	Mean ( <i>SD</i> )	z value	<i>p</i>
HADS Depression	6.50 (2.73)	6.40 (2.51)	0.20	.84
MSPSS Social Support	59.98 (17.50)	59.41 (15.94)	0.10	.92

Paired sample *t* test values indicated that there was a significant change ( $p < .05$ ) in self-esteem ( $t_{(58)} = -2.74, p < .05$ ) and body dysphoria ( $t_{(56)} = 2.26, p < .05$ ) following one year on CSH. There was a significant increase in self-esteem, and a significant decrease in body dysphoria. There was no significant difference in anxiety, depression, social support, or interpersonal functioning (maximum *t* value,  $t_{(59)} = 1.33, p = .19$  for anxiety).

#### 3.1.3.4.1 Analysis of IIP and MSPSS subscales

The IIP interpersonal functioning scale has eight different subscales and the MSPSS social support scale has three different subscales that contribute to the overall total. A more focused analysis of the subscales was carried out using paired samples *t*-tests. There was no significant difference in any of the IIP subscales (sociable, assertive, aggressive, open, caring, supportive, and involved), maximum *t* value,  $t_{(52)} = 1.86, p = .07$  for the subscale assertive, and there was no significant difference in any of the MSPSS subscales (significant other, family, and friends), maximum *t* value,  $t_{(59)} = .30, p = .76$  for the subscale friends.

## 3.2 Qualitative

### 3.2.1 Interviewees and photographs

All interviewees were MtF and the average age was 28. Interviewees were white British, one was employed and one was a student. Interviewees have been in CSH for an average of five months. Interviewees generated 22 photographs in the photography activity. Interviewees were able to select the photographs they wanted to use during the semi-structured interview to facilitate discussion about their psychological wellbeing during CSH. Both interviewees selected five photographs to discuss and during the interview they chose the order in which they preferred to talk about them. Interviews lasted between 58 minutes and 62 minutes.

### 3.2.2.IPA analysis: Super-ordinate and subthemes

A detailed case by case and then across cases analysis was completed which resulted in the emergence of three super-ordinate themes. The super-ordinate

themes and subthemes were reviewed and refined allowing connections between them to be identified (Smith *et al.*, 2009). A diagram illustrating the dynamic overlap between the themes is presented in Figure 1; all themes occurred across both interviewees.

The first super-ordinate theme of **‘discovery’** focuses on the occurrence of new experiences that occurred as a consequence of CSH, psychological containment is explored in the second super-ordinate theme of **‘self-protection’**, and finally, the wider implications are discussed in the third theme **‘critical stance and responsibility’**.

### 3.2.2.1 *Discovery*

This super-ordinate theme captures the ‘new’ experiences that impacted on psychological wellbeing that occurred during the gender transition process. The theme of ‘discovery’ arose directly from the recurring narrative from the interviewees of conceivably encountering many aspects of their lives for the ‘first time’.

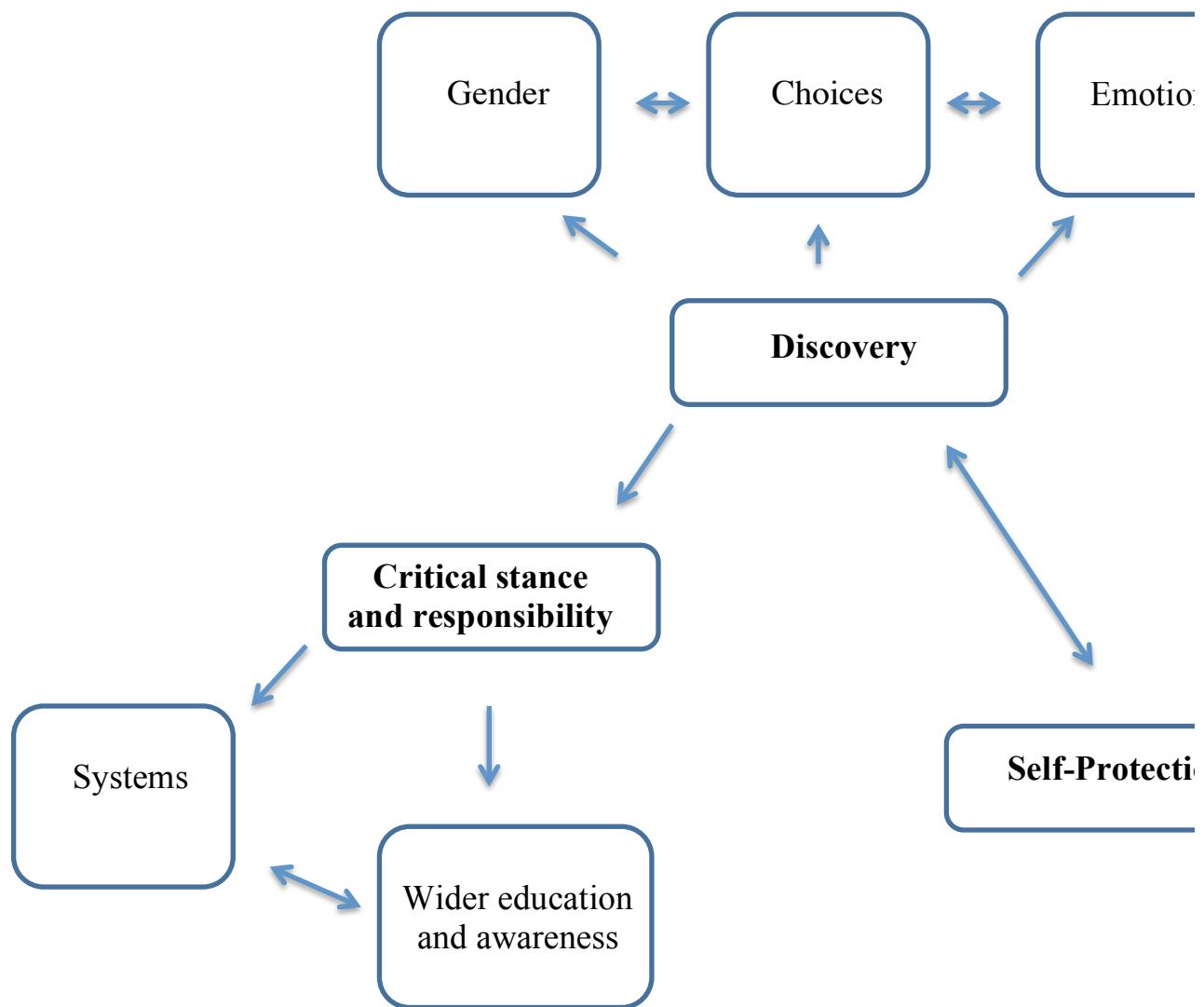
#### 3.2.2.1.1 Gender

The obvious physical changes that were gradually occurring during the course of CSH featured strongly. Both interviewees detailed how the bodily changes impacted on their psychological wellbeing as they now felt a sense of being complete.

*I feel comfortable that, um, I feel, that I’m not being split., umm, and that I don’t have a separate private person from a public person . . . that I don’t have like, cos inner me, and outer me, I can live my inner me as well (Zara<sup>3</sup>)*

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<sup>3</sup> Pseudonyms have been used to protect the interviewees’ anonymity.



**Figure 1: Diagrammatic representation of IPA super-ordinate and subordinate themes**

These quotes represent how the influence of gender transition meant psychologically interviewees were not trapped to an internal reality but through the use of CSH felt able to express their gender externally to others and that a sense of feeling whole emerged.

*I feel like I've grown a lot as a person . . . as like going from living in black and white to living in colour. (Abbey)*

Across these three quotes the imagery of a previously fragmented self is powerfully illustrated. 'living in black and white to living in colour' is suggestive of the experience of an individual finally feeling alive, and visible to other individuals. The use of language is symbolic of the socially influenced binary nature of gender. The process of CSH transition appears to transcend the duality of gender and consequently facilitates the birth of an individual as they wish to appear.

### 3.2.2.1.2 Choices

Interviewees talked about taking ownership and beginning to feel in control. The subtheme of choice represents the dialogue that emerged regarding interviewees previously acting in a passive manner and now as a consequence of CSH being able to make their own decisions and wishes.

*Definitely felt like I was being carried along by the flow of life, you know? Rather than making – now I make more like definitive decisions for myself. Cos I, I'm now happy in the knowledge that even if I make a wrong decision it's my decision I've made. (Abbey).*

*And I, you know, I own that decision. Whereas before, you know, maybe I was like paralysed by not knowing the right decision and, you know, maybe I was just letting myself get carried along, I didn't want to make any decisions for myself. (Abbey)*

The ability to make life choices appears to enhance assertiveness and overall confidence. The use of the terms 'paralysed' and 'carried along by the flow of life' represents how interviewees felt physically incapable, and in a fixed and unchanging position. The submissive and 'done to' nature of gender identity imposed a passive and unwanted restriction on how interviewees were living their lives. The decision to have

CSH treatment appeared to have a liberating effect and instigated a catalogue of choices being made, and there was an acknowledgement that it was acceptable for this to occur and put yourself first. *Going it's okay to prioritise myself.* (Zara)



**Figure 2: Photograph of caged animals**

Abbey spoke about the idea of feeling ‘trapped to freedom’, and illustrated this through the use of the above figure (see Figure 2). She articulated this by saying ‘*Stuff like that its conscious decision making from my heart*’. (Abbey)

#### 3.2.2.1.3 Emotions

The experience of recognising, feeling, and expressing emotion was apparent in the scripts of both interviewees. This ability to finally sense different emotions appeared to be a novel process.

*Like yeah, and numb sort of feeling and that's all be lifted slowly.* (Abbey)

*I feels like it's more along the lines of being more in touch or being able to relate more to my emotions. Or whether they're more present. So it's not that I didn't used to have the same emotions but maybe they used to be further away or the other side of some glass, that um, rather than now, um, being more in the middle of them.* (Zara)

The quotes appear to be describing the awakening of an emotional language and ability to feel as if previously clouded or fogged over, preventing a genuine presentation and experience of who they are. ‘*The other side of some glass*’ suggests that emotions



previously were untouchable, something to look at but not engage with. The process of being able to express their desired gender has also facilitated emotional expression, and this overall appears to have a positive therapeutic benefit:

*As a person, yeah I've improved . . . I feel much better and happier, and people who know me all say the same thing. (Abbey)*

Both interviewees reflected that CSH transition had an overwhelming influence on improvements in: confidence; motivation; anxiety in social situations; and low mood.

*Um, I'm probably better with friends and stuff now, um, maybe a bit more outgoing, maybe a bit more, you know, happier. I mean my family all say that I'm like happy and outgoing, you know, like more socially active I guess, when people are around I can talk and do things with them. Rather than before when I'd keep myself to myself, you know, sit in the corner. (Abbey)*

### 3.2.2.2 Self-protection

A prominent feature of interviewees' experiences was the use of protective factors. During a vulnerable period of time where interviewees were navigating their own gender identity they engaged in strategies to ensure their own psychological security.

#### 3.2.2.2.1 Acceptance and others

The notion of 'acceptance' appeared to influence decisions made and protection of an individual's psychological wellbeing. Zara talked about consciously choosing to dress differently depending on who they were socialising with.

*I'm choosing to manoeuvre in a way where I don't upset them too much. . . like by, like I don't dress, like I'd wear women's clothes when I go there but I don't, you know, if probably wear jeans when I do. They'd be women's jeans but, um, um, yeah. So I'll adapt how I present. (Zara)*

The description of 'manoeuvring' suggests that every behaviour has a consequence and needs to be considered carefully. There appears to be a balance between subtly expressing gender identity and avoiding any psychological distress.

*It's a weight I carry I guess. . . not trying to introduce stressors. (Zara)*

The decision making process seems to be a physical burden, an intrinsic part of an individual and suggestive of something that is not easily removed. So although the aim is to reduce psychological distress through visual acceptance, it seemed to also inadvertently impose a heavy strain.

Abbey considered the immediate reaction and perception from others, and how the wider trans community views this.

*Appearance can be a big one, you know. . . first meet [someone] and they always seem to comment on your appearance in some way. (Abbey)*

*Um, the like, conforming can be, um, frowned upon by certain people because, you know, they see it as making it more difficult for everyone who doesn't conform. (Abbey)*

There appears to be an internal struggle and conflict between appeasing others but also being able to express who you are whilst at the same time managing the impact to psychological wellbeing of the individual themselves and those around them.

#### 3.2.2.2.2 Support and stability

The reliance on the support received from others and engaging in support systems was a key theme throughout the narratives of the interviewees. They appeared to provide a safe base for individuals.

*I felt like it was especially important because like I had transitioned like, he would like, I'd go off for meals with my family and like, you know, they'd say the wrong thing and I'd feel terrible and I'd feel like ugly and like a freak or something. I'd come back and I'd be in tears and he'd just calm me down, like, you know, make me feel better. (Abbey)*

The choice of the word '*freak*' highlights how alienated Abbey felt from family members, '*or something*' suggests how they feel or appear isn't even definable,

perhaps creating a sense of isolation and not belonging, even within her own family environment.

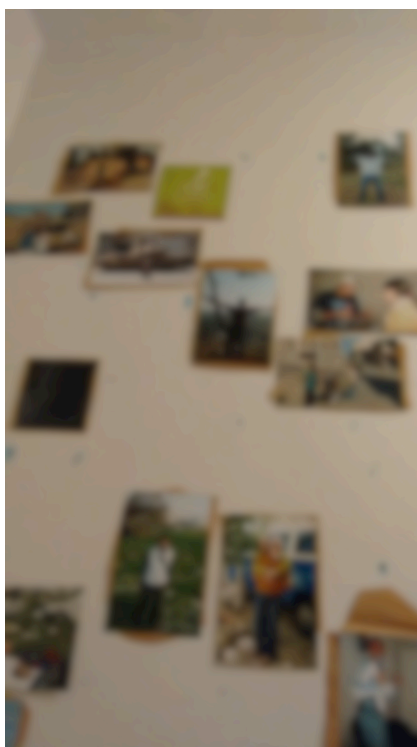
*He's been such a huge like rock and support for me like the last year  
(Abbey)*

The illustration of Abbey's partner being a 'rock' suggests an unmoving and solid level of support, and the 'huge' size of it represents the importance of such a relationship. Zara also echoed the importance of a partner and the comfort a relationship brought:

*She was definitely a point of stability, um, and also a source of support. .  
.making sure I prioritise my psychological wellbeing in the transition  
process and in general. (Zara)*

Zara further elaborated the idea of stability:

*I spend a lot of time travelling, I was in [country] a lot and in [country]  
before that. Um, but even when I lived in [country] I rented a room, the  
same room. So being able to go back to my room with my things, um, and  
now, okay a-that was also a level of stability and I could just relax there.  
Not so much hiding away, it's not like I can get away from the world and  
cocoon myself. Um, it's not that, but that, yeah it's more about stability.  
(Zara)*



**Figure 3: Photograph of photographs in bedroom**

Zara selected this photograph (see Figure 3) and talked about how each photograph pinned on the wall reminded them of important events and people in her life.

The choice of having a room filled with familiar objects suggests permanency in a period of time when many other things are shifting. The option of not being able to escape or ‘*cocoon myself*’ suggests a hidden desire to be protected from the outside world, a yearning to be unveiled following a time of growth but that the limits and reality of life prevents this from occurring. As a result Zara has creatively implemented strategies for ensuring they have a space that is constant in her life.

*Having that in [city] feels like a safe space. . I guess all of that means that I don't feel isolated. Um, which gives me a cushion, um, yeah, gives me a cushion and a confidence. . . .because of having such a supportive community giving me the confidence in the first place to go actually oh well fuck them if they're shitty, just push back and accept me as who I am, so I will be. (Zara)*

In this quote Zara reflects on the need to have a soft protective space ‘*a cushion*’ which facilitates an inner confidence to explore.

### 3.2.2.3 Critical stance and responsibility

The third super-ordinate theme arose from the interviewees' realisation that their journey influences others. In particular how external influences have impacted on their psychological wellbeing and how this creates a desire for advocacy and change.

#### 3.2.2.3.1 Wider education and awareness

The responsibility to educate others and promote awareness regarding gender transition was a role both interviewees adopted. Zara talked about a situation with a registrar that believed trans individuals could not get married:

*Yes, but I guess I see the tricky moments like, for instance, the whole thing with the registrar that was annoying but the way I end up dealing with that is, um, rather than it really upsetting me that much, getting angry with the fact that they treated me like that and going okay how do we make sure that they get training, so they don't do that to someone else who's actually going to end up far more upset about it than I am. (Zara)*

The quote demonstrates the conscious decision making process Zara engaged in to prevent any current or future psychological distress. The phrase '*really upsetting me that much*' suggests a minimisation of the actual emotional impact the interaction with the registrar had. It seems Zara is acutely aware of the impact this may have to the wider community and to reify her own annoyance about the situation she chooses to engage in facilitating others to develop an understanding of the gender transition process.

Abbey talked about taking on a leadership role:

*I really felt there was a need for someone to organise things and help people get together as a group and I think I succeeded in that. (Abbey)*

*I was like, I'd been thinking I wish there had been a support group which I had been at, so I could have felt comfortable like talk and expressing. . . if everyone else is a crying wreck I don't want to be. I want to be the person whose not the crying wreck so they can get support and feedback and talk*

*through issues. . . I was thrown in at the deep end I felt and, you know, I've been a better person for it. (Abbey)*

Abbey reflected on her experiences and the desire for this not to be repeated with others. The nautical imagery, a 'crying wreck' suggests an individual that is washed up, neglected, and abandoned, coupled with 'in at the deep end' indicating an emotional drowning and attempt to stay afloat with providing support for others. Abbey is able to channel this understanding and concludes it has had a positive benefit to her psychological wellbeing.

#### 3.2.2.3.2 Systems

There appeared to be a parallel process happening between a dependence on the healthcare system for support but interviewees also expressed frustration about this. The administrative/organisational side of the gender transition process appeared to directly influence an individual's psychological wellbeing.

*I resent the fact that the medical profession has to be involved in who I am and the way I live my life, I don't feel that's fair. But it's the way life is. (Abbey)*

*I don't like the idea that I have to be verified for this, I don't like the idea I need someone's permission to you know, live my life. (Abbey)*

The intrusive nature of the healthcare system causes a direct impact to relations, in particular, the notion that an individual needs to be confirmed to be who they are. The use of words such as 'verification' and 'permission' are suggestive of individuals feeling the need to prove who they are, and that others are almost affording them the privilege to do so.

*Um, and, and part of it is also about then getting on hormones then that leading to no longer to go, yeah not needing to jump through more hoops or do more arranging for that. (Zara)*



**Figure 4: Photograph of cross sex hormones**

This photograph from Zara (see Figure 4) represents the essential link with the medical system.

*Yeah, uh it's annoying. I mean I know eventually, you know, I won't have to keep coming here anymore. You know, I can get a GRC I can live my life normally. I won't have to, you know, I won't be forced to do this. I mean It's, it's just a, it's a resentful feeling to know that you have to jump through hoops right? (Abbey)*

The imagery of '*jumping through hoops*' suggests the process is being likened to a circus act. Interviewees may have felt they are simply performing and putting on a show, overcoming obstacles placed in their way. It seems even during the transition process interviewees did not feel able to fully express their identity but ultimately there was a resignation to conforming to the system in order to facilitate emotional wellbeing and longer term goals. *Jumping through the hoop made my life easier. (Abbey).*

## **4. Discussion**

### **4.1 Summary of research findings**

The study aimed to explore the psychological impact of CSH. Given the embedded intervention mixed methods design the discussion focuses on the quantitative findings and is supplemented by the qualitative themes that will provide an understanding of experiences of psychological wellbeing during CSH (see Appendix U for a diagrammatic overview of the findings).

#### **4.1.1 Psychological wellbeing pre CSH transition**

The data indicated higher levels of anxiety, depression, and lower levels of self-esteem as compared with the general population. These findings are similar to previous studies that have concluded that psychological difficulties are more common in individuals with GD prior to transition (Crawford *et al.*, 2001; Gomez-Gil *et al.*, 2011; Sinclair *et al.*, 2010). Only tentative conclusions can be drawn regarding social support, interpersonal difficulties, and body dysphoria due to the lack of complementary norms from the general population. It appears, there were better perceived social support, better interpersonal functioning, and lower levels of body dysphoria.

There were significant associations between the variables indicating, lower self esteem, lower social support, higher levels of interpersonal difficulties, and higher body dysphoria were associated with higher levels of anxiety and depression. The current study did not compare the findings to a control group and therefore the patterns found in this sample may also be representative of patterns that occur in the general population. The findings also indicated that pre CSH self-esteem and interpersonal difficulties were contributing to over half of the variance in anxiety, and interpersonal functioning was contributing to over a quarter of the variance in depression. Although some previous studies have demonstrated that psychological wellbeing in a trans population is comparable to the general population (Colizzi *et al.*, 2014; Simon *et al.*, 2011; Smith *et al.*, 2005) the current findings are consistent with previous studies that have found an association between psychological variables in a trans population (Auer *et al.*, 2013; Davey *et al.*, 2014; Heylens *et al.*, 2014). The current findings are representative of previous studies that have found an association between higher levels of depression,



social anxiety and lower levels of self-esteem as compared to a control sample (Kim *et al.*, 2006), higher levels of body dysphoria and overall lower psychological wellbeing (Bandini *et al.*, 2011), and higher levels of interpersonal sensitivity (particularly in MtF, as measured by the SCL 90) (Simon *et al.*, 2011).

Prior to any medical intervention for gender transition it is perhaps understandable that individuals may experience elevated levels of psychological distress. It has been shown that trans individuals are likely to feel anxious, anticipate or even avoid negative interactions with others (Dhejne *et al.*, 2016). Consequently, anxiety may reduce their social support and limit interaction with others. Less perceived social support has been identified as a risk factor for poorer psychological wellbeing in trans individuals (Davey *et al.*, 2014; Factor & Rothblum, 2007; Gooren *et al.*, 2015; Kim *et al.*, 2006; Simon *et al.*, 2011). The current findings indicate that feeling anxious, depressed, and having low self-esteem was apparent in the current sample. Although it is unclear whether or not interpersonal functioning was significantly worse prior to CSH (due to the lack of non clinical norms for a comparison) interpersonal functioning (and lower self-esteem) did contribute to anxiety and depression. Overall, the findings indicate worse psychological wellbeing prior to CSH.

#### 4.1.2 Psychological wellbeing during CSH transition

Analyses were conducted to determine whether there was any significant change in psychological wellbeing during the first 12 months of CSH and to supplement this with an understanding of the experiences occurring. The data indicated a significant change in self-reported levels of self-esteem, and body dysphoria. Overall both body dysphoria and self-esteem improved. The current findings (with regards to self-esteem and body dysphoria) are consistent with previous studies that have reported an improvement in overall psychological wellbeing following CSH (Colizzi *et al.*, 2014; Slabbekoorn *et al.*, 2001). Despite higher levels of anxiety, and depression prior to CSH there was no significant change in these variables or in interpersonal functioning and social support.

It is important to understand the individual's account of their experiences that are occurring during CSH and how this relates to any significant change in the current findings, self-esteem and body dysphoria, or lack of any significant change in anxiety,

depression, social support, and interpersonal functioning. Three themes emerged from the transcripts: discovery; self-protection; and, a critical stance and responsibility.

The physical changes that occur as a consequence of CSH appear to facilitate a change in body dysphoria and self-esteem. As an individual's outer body image becomes aligned with their psychological gender body dysphoria lessens and an overall improvement in self-esteem occurs. This reflects previous findings that have identified the relationship between body image and distress (Becker *et al.*, 2015) and that CSH alleviates this distress (de Vries *et al.*, 2011; 2014). It appears that the improvements in body dysphoria and self-esteem seen as a consequence of CSH are reflected in the theme of 'discovery'. 'Discovery' represented an awakening of many aspects of the individual's lives and an overall improvement in psychological wellbeing occurred. As individuals traversed the new options with regards to emotions, choices, and gender, available to them this facilitated a new found confidence and assertiveness. The statistically significant change in self-esteem and body dysphoria is directly reflected in the narrative of 'discovering' a new gender identity and confidence in making decisions and expressing emotion.

In the current study, there was no statistically significant change in anxiety and depression. The lack of any statistical change could be reflective of the time sampling period and when individuals completed the measures. CSH is typically one of the initial medical interventions of gender transition and 12 months is recommended by the WPATH before commencing any further medical intervention such as SRS. CSH normally occurs at the same time as social transition, as physical changes occur it is easier for individuals to socially transition to their preferred gender. The rate that physical changes occur and type (skin, hair, voice, breast development, changes to genitals for example) varies in each individual, therefore as CSH is one of the initial stages of gender transition greater physical changes (SRS), may influence levels of anxiety and depression. Previous research has demonstrated that across the gender transition pathway (although not every individual follows this pathway, it can include social, CSH, and SRS), psychological wellbeing improves (Heylens *et al.*, 2014).

The themes 'self-protection', and a 'critical stance and responsibility' arguably reflect

the lack of any statistical difference in social support and interpersonal functioning. The reliance on social support systems and consideration of the relational context within which support was provided emerged in these themes. It could be argued that there was no statistical change in social support as individuals strived to maintain what they had as it was an important factor in sustaining psychological wellbeing. Similarly, interpersonal functioning may not have shifted over 12 months, as it was clear individuals were navigating relations with others, the system, and the wider trans community. It is important to note, it was not possible to compare social support and interpersonal functioning to clinical or non-clinical norms and so although there was no statistical change it was also unclear if these variables contributed to poorer psychological wellbeing prior to CSH. It is apparent from the qualitative themes that social support and interpersonal functioning are key factors in what individuals believe helps to maintain good psychological wellbeing.

#### 4.1.3 Overview

Overall, it appears that certain psychological factors (anxiety, depression, and self-esteem) are higher pre CSH, and that receiving CSH facilitates an improvement in self-esteem and body dysphoria. These changes were apparent in the narratives individuals provided in the qualitative theme of ‘discovery’ regarding changes in gender, freedom to make choices, and express emotion. There was no statistically significant change in anxiety, depression, social support, and interpersonal difficulties but this could be due to the importance of social support and interpersonal relations in maintaining psychological wellbeing during CSH. This was reflected in the qualitative themes of ‘self-protection’ and ‘critical stance and responsibility’. Further time transitioning and subsequent medical interventions may be required to see the impact on anxiety and depression.

## 4.2 Clinical implications

The findings of the current research provide insight into the complexity of psychological wellbeing during CSH transition. Given the involvement of healthcare professionals during the gender transition process there are important clinical implications that might be considered.

The findings indicated that certain psychological variables were more common in comparison to the general population. It is important that the distress experienced prior to CSH, and even before an individual presents to services is considered and reviewed throughout the transition process. The dominance (and requirement if you wish to physically alter aspects of your body) of a medical model may overshadow the psychological aspects of transition and it is important for clinicians to be mindful of this. Incorporating a psychological element into a review session may also have further ramifications as it will demonstrate to individuals accessing services that a holistic approach is being adopted, their views and wellbeing are fundamental, and may breakdown the perceived image of healthcare professionals working in GD services as ‘gatekeepers’ to interventions.

Further elaborating on the point above, the resilience individuals displayed in managing their own psychological wellbeing should not be dismissed. The resources they drew upon were clear in the qualitative themes. Using the strengths an individual brings and helping them to develop this will create a sense of autonomy, self-efficacy, and identity development beyond gender. This may also facilitate a greater sense of mutuality between individuals and clinicians if a shared understanding and respect develops during the gender transition process.

The reliance on social support and the sense of feeling responsible to educate the wider general population came through in the qualitative themes and appeared to enable better psychological wellbeing. If gender identity services aimed to increase awareness of the psychological impacts of GD and gender transition, and facilitate access to resources, this may strengthen the relationship between clinicians and trans individuals. The individuals that participated in the interviews were keen to share their experiences and knowledge. Service may consider capitalising on this to help develop a mutual understanding, reduce stigma and distress associated with GD.

#### **4.3 Strengths and limitations**

The current study has contributed to the literature on GD and psychological wellbeing. In particular, the use of a mixed methods design is a strength of this study as it allows an examination of whether (statistically) any change in complex constructs/psychological wellbeing occurred during CSH treatment and to complement

this an understanding of the psychological complexity and experiences that occurred during this time period were examined. A mixed method design adds accuracy to words and a context to numbers. It is worth noting that critiques of a mixed method design propose the combination of methodologies simply causes a dilution of any one approach leading to both poorer quantitative and qualitative research rather than the desired complementary effect (Giddings & Grant, 2007). Caution was applied to both strands of this research project and the combination of quantitative and qualitative approaches enhances the overall understanding.

Given that, it is important to consider the limitations of the study. It is important to consider the sample recruited for both the quantitative and qualitative components. Recruitment and completion of the questionnaire measures may include a bias. It stated explicitly on the PIS and consent form that involvement in the study did not influence clinical care however, this does not eliminate the possibility that there was a social desirability bias when completing the questionnaires. Furthermore, the data were not compared to a control sample meaning findings need to be considered with caution.

The photo elicitation design limited the reliance on memory and language to facilitate an understanding of experiences however, it may be that the approach was demanding for the individual involved. There is the possibility that the study only appealed to individuals that were more comfortable with technology, felt comfortable with the freedom to photograph intimate aspects of their lives and were willing to be involved in an in-depth discussion about their experiences. IPA suggests theoretically consistent sampling (Smith *et al.*, 2009) in order to provide an in-depth understanding but not generalisability and so it is prudent not to over-interpret the findings as indicative of the wider trans population. The final sample also consisted of MtF and the experiences of FtM were not represented.

Both strands of the current study (quantitative and qualitative) only included people that have accessed services and are arguably not representative of the wider trans population. Psychological wellbeing may vary dependant on ability to access services and the social context surrounding gender nonconformity. The two individuals interviewed are also unlikely to be representative of the 60 participants that completed the quantitative element of the study.

#### **4.4 Recommendations for future research**

The findings from the current study provide new insights into the psychological impact of CSH. Following on from the limitations identified above, future quantitative research should compare the findings with a control sample, and also patterns with different samples (age, or determine the impact of gender on psychological wellbeing for example).

The current study examined whether there was any change during CSH. However, many individuals opt to subsequently pursue SRS so it would be interesting to add an additional time point (after SRS) and compare psychological wellbeing across the whole transition pathway. More specifically, the impact of certain SRS procedures (for example, phalloplasty, metoidioplasty, mastectomy, chest reconstruction, hysterectomy, and bilateral salpingo-oophorectomy) could be considered too. It would be useful to consider alternative validated measures.

With regards to future qualitative research, an obvious extension from the current findings would be to explore the experiences of psychological wellbeing in trans-males and also in both trans-females and trans-males following SRS. Given the themes of ‘support and stability’ and ‘systems’ that arose it would also be of key importance to understand the experiences of partners, family, friends, and healthcare professionals. Finally, culture influences how we appreciate gender identity. It would be useful to extend any understanding beyond a predominantly white British sample to appreciate the influence diversity and culture has on gender identity expression.

#### **4.5 Conclusion**

This study has provided an important contribution to the field of trans research as this is the first study to systematically determine the impact of a single medical intervention to psychological wellbeing and supplement this with an understanding of why, if any, changes are occurring. The psychological impact of any stage of gender transition should not be overlooked and it is important to acknowledge this in clinical settings. There are a number of future research ideas that might capitalise and expand on the current findings and may develop a richer understanding of the process occurring during such an intimate and vulnerable time for trans individuals.

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## **Section three: Critical appraisal**

### **3.1 Overview**

The aim of this section is to provide a personal and professional account of the experience of completing the research project and summarise learning that occurred. A reflective journal was maintained throughout the research process to document any thoughts, observations, questions, barriers, and decisions made. The reflective journal shaped the foundation of this critical appraisal.

### **3.2 Choosing a research topic**

Appreciating and respecting an individual's identity, and allowing them the freedom to express who they are without judgement is an important value to me. Having been born and raised in Canada, and fortunate to live and work in different parts of the world I am proud of my identity and have developed a respect for different cultures, and ways of living. Prior to starting the clinical psychology doctorate I had a particular interest in gender identity, having had professional experience of working with individuals with gender dysphoria, as a research associate. Whilst working as an IAPT psychotherapist, I volunteered to help co-ordinate and establish a database of demographic and psychological variables for individuals diagnosed with gender dysphoria and who are engaging in the gender transition process. Being involved in this project highlighted to me the psychological demands placed on individuals that feel unable to express their gender identity and the enormity of the physical changes that occur as a consequence of transitioning. My personal values and more recently, professional experiences, consolidated my interest in this area, and I was able to pursue this as a topic for my thesis.

Gender identity is a relatively unexplored area in the field of clinical psychology. Although this meant the possibility for research questions was huge, I also wanted to do justice to the research, and the individuals involved within the scope of the DClin Psy remit. Originally, I had considered focusing on changes that may or may not occur with regards to psychological wellbeing during the gender transition process and use a purely quantitative method. However, it became apparent that this might be too restrictive and



fail to gain an understanding of the complexity and overall experience. It was decided to expand this and adopt a mixed methods approach and include a qualitative element and explore the lived experience of psychological wellbeing during gender transition.

### **3.3 Choosing a method**

The overall aim of the research project was to develop an understanding of how gender transition impacts psychological wellbeing. Gender transition is a lengthy process that occurs over years, over various stages, and our psychological wellbeing is of course not static and fluctuates; I was keen to capture and incorporate this within the design. The literature revealed there were few studies that had examined the psychological impact over time. It therefore seemed logical and valid to collect data during the first stages of the gender transition process: cross-sex hormone transition. I was fortunate enough to be allowed the freedom to be greatly involved in shaping and designing the project; something I valued given my interest in this area.

#### **3.3.1 Quantitative**

Given my prior involvement and knowledge of the database at the gender clinic it seemed appropriate to use and add to this data for the quantitative section of the project. It was important to consider which variables and over what exact time period they would be examined. The questionnaires were selected based on the fact that they were representative of a broad range of potential physical and psychological changes that may occur during the gender transition process. It was decided that questionnaire data would be collected at the start of gender transition process and one year on as this was a significant period of time for any physical changes to have occurred and whether they had an impact to psychological wellbeing. It was also a feasible time scale to gather the data within the DClin Psy course remit.

#### **3.3.2 Qualitative**

When consulting the literature regarding psychological wellbeing during gender transition it struck me that there was a paucity of qualitative research. There was little research that had aimed to gain a personal perspective and understanding of the impact the gender transition process has. Prior to starting the DClin Psy doctorate I had little

qualitative research experience so I was keen to learn about the different data collection and analysis methods. The photo elicitation method aptly lends itself well to understanding the individual but is also a method that is interviewee led and allows experiences to be captured over time; this appealed to me and I felt it was a novel and appropriate method for the study. Interpretative phenomenological analysis (IPA) allowed me to explore individuals' accounts in detail, be grounded in the data generated, and focus on the psychological perspective of experiences. I was mindful of the fact that research in this area is in its infancy and there is the risk that individuals may have already experienced marginalisation. I was keen for individuals not to feel 'targeted' for recruitment. It was therefore particularly important for me to use a method that fully understood and appreciated experiences from the interviewees' point of view. The combination of using photo elicitation interviews and IPA meant that some common criticisms of IPA (reliance of ability to articulate experiences) were somewhat reduced and allowed for a richer, and idiosyncratic method.

### **3.4 Collecting data**

The staff at the service where the research study was being conducted enormously facilitated all data collection and recruitment. I found adopting a personal approach, contacting clinicians independently to explain the rationale behind the project aided recruitment. All staff were approachable and supportive of the research project and without their contribution recruitment would not have been possible.

#### **3.4.1 Quantitative**

Questionnaire data was collected from prior to starting and 12 months into cross-sex hormones. Collecting questionnaire data prior to starting on cross-sex hormones seemed relatively straightforward. Each new referral was sent a questionnaire pack for the participant to complete and post back to the clinic. Organising the 12 months on cross-sex hormone questionnaire data collection was more time consuming. Suitable individuals needed to be identified and sent questionnaire packs. This process involved going through individual cases to determine whether the assessment had been completed, diagnosis given, if they started on cross-sex hormones, and the date started.

Although the database had been mostly developed there were inevitable barriers along the way. For example, part of the transition process typically involves a change of

name. Navigating a database where identifiable demographic variables such as gender or names change proved a hurdle. Once these organisational obstacles were addressed data collection seemed to manage itself. During the process I became aware of how impersonal receiving the questionnaire pack through the post may appear. Although the participant information sheet and consent form outlined the purpose of the project there seemed an obvious distance between the 'researcher' and 'participant'. I wondered how this may feel for the individual being required to complete the questionnaire pack and impact to the relationship between them, the service, and research in general. It made me reflect on the type of data received using this method and start to consider potential ways this could be addressed in the future, for example rather than posting questionnaire packs explaining the study and handing them out at the first appointment.

### **3.4.2 Qualitative**

Due to the nature of the photo elicitation interview early recruitment was essential in order to allow adequate time for photographs to be taken. Where possible, interviews were scheduled to coincide with clinic appointments (patients of the clinic attend review sessions every three months) to minimise additional travel requirements and inconvenience for the interviewees.

Although the service fosters an active research culture recruitment proved to be difficult. I was acutely aware of the demands I was placing not only on clinicians to be vigilant and recruit any potential interviewees but also on the interviewees themselves. I felt I was asking interviewees to invest a lot of themselves for the study during a sensitive and vulnerable time for them, and without any observable or immediate gains. It occurred to me that trans individuals may feel targeted for research projects, and how this may impact them. Having said this, I was overwhelmed with the effort and time individuals spent photographing aspects of their transition and psychological wellbeing and how open and honest interviewees were with me about their experiences. I was humbled by the details they shared with me, and felt a sense of responsibility knowing such intimate information. I was mindful of the need to maintain my role as a researcher, but also aware of the interviewees (potential) desire for their emotional needs to be validated during the interview. This was a balance I endeavoured to

maintain during the course of interviewing and I can see how my skills have developed over time.

### **3.5 Analysis**

#### **3.5.1 Quantitative**

Having had previous experience in quantitative research I felt more familiar with how to structure and conduct the analysis. My prior knowledge gave me the confidence to discuss and complete the analysis. I have always found it quite ‘exciting’ to run an analysis in SPSS following what is normally a lengthy data collection process to reveal the findings. The analysis involved using statistical tests that I was more comfortable with (t-tests, z tests), and statistical tests that were new to me (multiple regression). Some of the findings (in particular Cronbach’s alpha for HADS and RSE) were surprising however, this data forms part of a larger ten-year study and so data collection and analysis is still occurring. It was useful to complete analysis at this stage and feedback to the team. Learning about a new statistical test concerned me because I was aware of time limits and my propensity to become overly involved in learning and completing tasks ‘perfectly’. I felt I was able to navigate and learn about multiple regression and use the statistical test appropriately for the DClin Psy. The experience reminded me of when I first started to learn about statistics and made me reflect on the knowledge I have gained over the years and that learning is a continual process.

#### **3.5.2 Qualitative**

Due to time constraints, and the amount of data collection and analysis that was required, interviews were transcribed by a third party. Having limited knowledge of IPA and qualitative methodology in general it was important to me to familiarise myself with the theoretical underpinnings and process of data analysis. I consulted key texts (Smith *et al.*, 2009) and started the initial reading, and re-reading of the transcripts. Through this process I realised, although I was intrigued by the narrative accounts and richness of detail apparent in the interviews, the task of analysing seemed overwhelming. I was mindful of being cis-gender and how this may have influenced

dialogue and interpretation. I was concerned with ‘getting it right’, and if my interpretations would be ‘correct’. I was also acutely aware of ensuring that I gained sufficient depth within the structure and time limits of the DClin Psy. I suppose to contain my own anxieties I religiously consulted the literature and books to ensure I was following a structured process. Through peer support groups, and supervision however, I gained confidence, felt validated, and this arguably in turn allowed me to be less rigid in approach and freer to engage in the data and interpretation. The process opened my eyes to qualitative methods and the quality and utility of the information they provide, particularly in a psychology context. Prior to training qualitative methods were perhaps not ones I would have considered as routinely when conducted research, however, this process has enlightened me to their applicability.

### **3.6 Write up**

I feel I approached the write up phase in a systematic manner with the notion that it would help me balance the demands of the DClin Psy and submit my thesis on time. I have never felt overly confident in my ability to write succinctly and eloquently and so I wanted to ensure I had time to try and develop these skills. Despite having some limited knowledge of academic writing both the systematic literature review, and empirical report posed novel challenges to me. For example, incorporating quotes, photographs, and assimilating the findings from both quantitative and qualitative research were new experiences. At times I have questioned whether I have done justice to the research that was conducted within the write up. Despite personal challenges along the way, supervision and consulting the literature (and perhaps my fastidious nature), I have managed to compose a thesis and recognise how I have developed.

### **3.7 Dissemination**

From the very start dissemination was important to me. I will be eternally grateful towards the individuals that volunteered their time to be involved in my project. I wanted the data to go beyond serving the purpose of fulfilling the partial requirements for a DClin Psy and to inform the wider academic and clinical community. My previous experiences have taught me that often towards the end of a research project it becomes

difficult to maintain momentum. I was mindful that I did not want this to be the case for the current project.

Plans for dissemination include in the initial instance, feeding back these findings to the wider clinical and research community within the service the research was conducted. This will enable clinicians and researchers to better understand the psychological impact of the gender transition process and if possible, adapt care provided and clinical services to better meet the needs of individuals. The opportunity to read more about the findings will also be extended to the participants/interviewees involved in the research. Following thesis submission, I plan to submit both the literature review, and empirical report for publication in peer reviewed journals. I hope both will add to the literature base, and inform clinical work and future research projects, in particular to consider the usefulness of qualitative research in this area, but also the psychological implications of gender transition.

### **3.8 Reflections on personal and professional development**

Reflecting back on the research process I have been able to appreciate the challenges, rewards, and my own learning that has occurred. Having worked predominantly in research settings prior to starting the DClin Psy, the thesis was not something I shied away from but also did not approach naively. I felt privileged to be conducting research in a new and exciting area. At times the research project felt overwhelming, in particular the mixed methods design and the amount of data required. However, I remained grounded in the value of research and how it can inform practice. The integration of research and clinical work is something I would like to foster and continue to do in my career.

The research process, and the DClin Psy overall, has not only been both personally and professionally challenging but an enjoyable journey. I have always been overly enthusiastic and very much a 'do-er'. These are qualities that I value about myself, will continue to develop, and I know will have enormous impact in future endeavours. One critical learning point has been to balance these qualities with an understanding that things do not always have to be 'perfect'. I have started to appreciate that research,

clinical work, and goals in life, are more of an evolving process that needs to be balanced with self-care, rather than an end target.

## Appendices

### Appendix A: Guidelines for authors for target journal



## CLINICAL PSYCHOLOGY REVIEW

### AUTHOR INFORMATION PACK

#### TABLE OF CONTENTS

•	<b>Description</b>	<b>p.1</b>
•	<b>Audience</b>	<b>p.1</b>
•	<b>Impact Factor</b>	<b>p.1</b>
•	<b>Abstracting and Indexing</b>	<b>p.2</b>
•	<b>Editorial Board</b>	<b>p.2</b>
•	<b>Guide for Authors</b>	<b>p.3</b>



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## GUIDE FOR AUTHORS

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References should be arranged first alphabetically and then further sorted chronologically if necessary. More than one reference from the same author(s) in the same year must be identified by the letters "a", "b", "c", etc., placed after the year of publication. **References should be formatted with a hanging indent (i.e., the first line of each reference is flush left while the subsequent lines are indented).**

*Examples:* Reference to a journal publication: Van der Geer, J., Hanraads, J. A. J., & Lupton R. A. (2000). The art of writing a scientific article. *Journal of Scientific Communications*, 163, 51-59.

Reference to a book: Strunk, W., Jr., & White, E. B. (1979). *The elements of style*. (3rd ed.). New York: Macmillan, (Chapter 4).



Reference to a chapter in an edited book: Mettam, G. R., & Adams, L. B. (1994). How to prepare an electronic version of your article. In B.S. Jones, & R. Z. Smith (Eds.), *Introduction to the electronic age* (pp. 281-304). New York: E-Publishing Inc.

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### **Submission checklist**

The following list will be useful during the final checking of an article prior to sending it to the journal for review. Please consult this Guide for Authors for further details of any item.

#### **Ensure that the following items are present:**

One author has been designated as the corresponding author with contact details:

- E-mail address
- Full postal address

All necessary files have been uploaded, and contain:

- Keywords

- All figure captions
  - All tables (including title, description, footnotes)
- Further considerations
- Manuscript has been 'spell-checked' and 'grammar-checked'
  - References are in the correct format for this journal
  - All references mentioned in the Reference list are cited in the text, and vice versa
  - Permission has been obtained for use of copyrighted material from other sources (including the Internet)
- Printed version of figures (if applicable) in color or black-and-white
- Indicate clearly whether or not color or black-and-white in print is required.
- For any further information please visit our [Support Center](#).

## **AFTER ACCEPTANCE**

### **Online proof correction**

Corresponding authors will receive an e-mail with a link to our online proofing system, allowing annotation and correction of proofs online. The environment is similar to MS Word: in addition to editing text, you can also comment on figures/tables and answer questions from the Copy Editor. Web-based proofing provides a faster and less error-prone process by allowing you to directly type your corrections, eliminating the potential introduction of errors.

If preferred, you can still choose to annotate and upload your edits on the PDF version. All instructions for proofing will be given in the e-mail we send to authors, including alternative methods to the online version and PDF.

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## **Appendix B: Search terms**

A combination of the following terms were used to search for relevant articles:

Transgender

Sexuality

Gender Dysphoria

Trans\*

Gender identity

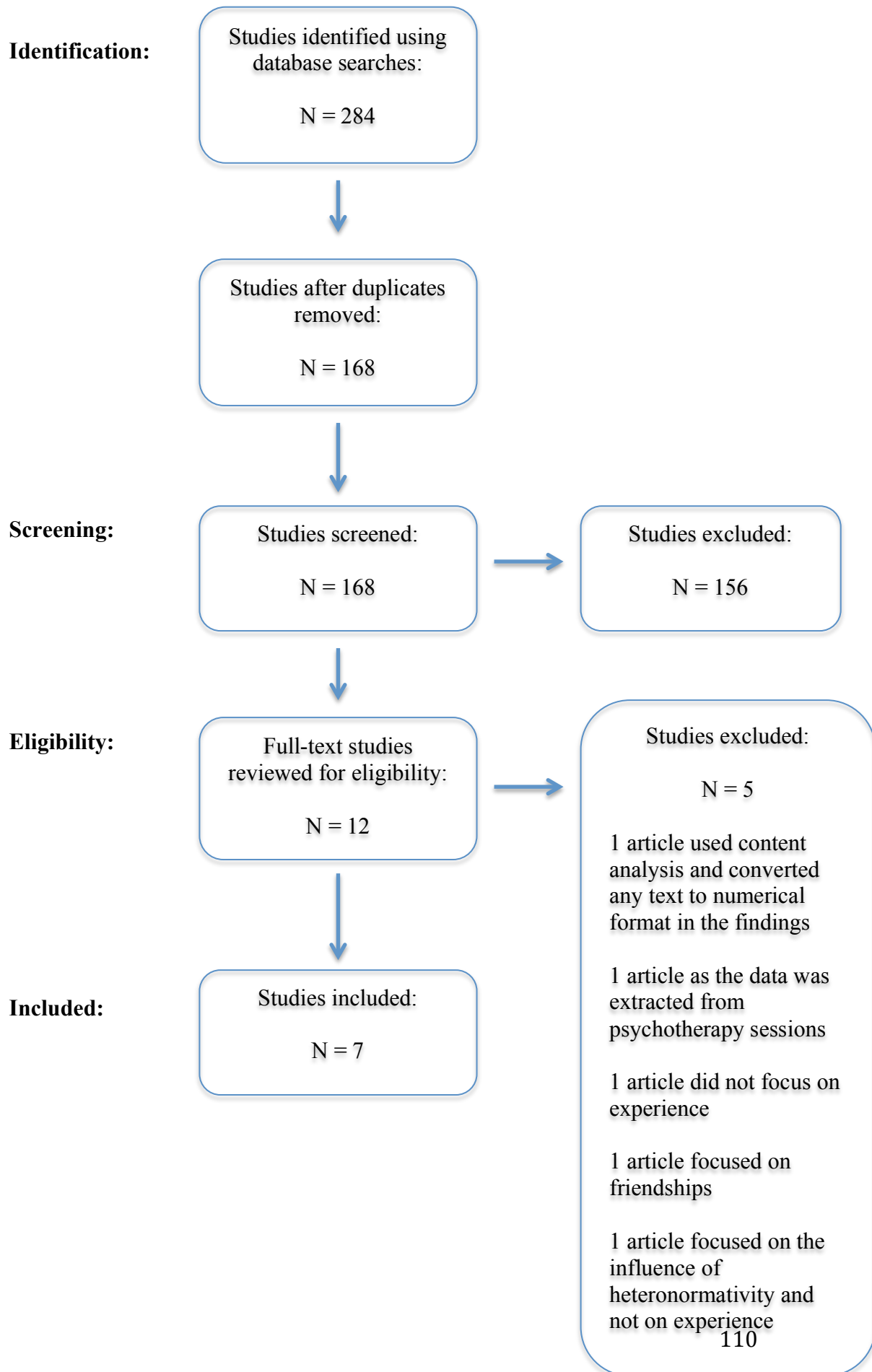
Transsexualism

Sex\*

Relation\*

Partner

## Appendix C: Flowchart for study selection



## Appendix D: Data extraction form

### Data extraction form

Study title:

Date:

Author(s):

Eligibility:

Question		If YES	If NO
1	Is the study about sexuality or sexual experiences during gender transition?	Continue	Exclude
2	Does the study include the perspective of trans individuals and/or their partners?	Continue	Exclude
3	Does the study use a qualitative method of data collection and analysis?	Continue	Exclude

## Study Characteristics:

<b>Study details</b>	Location
	Research question and aim
<b>Participants</b>	Population (including sample size)
	Age (range, mean)
	Gender
	Stage of gender transition
	Ethnicity
<b>Data collection</b>	Sampling method
	Method
	Who collected the data?
	How was the data prepared for analysis?
<b>Analysis</b>	Method
<b>Reflexivity</b>	Did the study report using reflexivity? Epistemological position?
<b>Findings</b>	How are the results presented?
Theme 1:	
Theme 2:	
Theme 3:	
<b>Conclusions</b>	Conclusion
	Limitations
	Clinical implications
	Future research
<b>Comments</b>	

## Appendix E: Study characteristics

Authors	Aims	Epistemology	Sample	Data collection	Analysis	
<b>1. Theron and Collier (2013)</b>	Explore the relationship between cisgender female partners and trans persons	Not stated	Eight natal females	Semi-structured interviews	Thematic Analysis	1) Sexu 2) Com 3) Fam relat
<b>2. Schilt and Windsor (2014)</b>	How physical body modifications impact sense of gender and sexuality	Not stated	74 FtM	Interviews	Emergent codes – thematic analysis	1) Gen 2) Sexu
<b>3. Brown (2010)</b>	Experiences of sexual-minority women in relationships with trans-male people, sexual desire	Not stated	20 FtM	Interviews	Grounded theory	1) Fact in cc 2) Fact 3) Char
<b>4. Doorduyn and Berlo (2014)</b>	Understand experiences of sexuality in trans people	Not stated	12 (both MtF and FtM)	Semi-structured interviews	Grounded theory	1) ‘It ju gend 2) Char 3) ‘The 4) Cros 5) Sexu
<b>5. Brown (2009)</b>	Experiences of sexual-minority women in relationships with trans-male people, sexual identity	Not stated	20 natal females	Semi-structured interviews	Grounded theory	1) Sexu 2) Sexu 3) Strat
<b>6. Alegria (2013)</b>	Examining sexuality in female who are in relationships with trans-female people	Not stated	16 natal females	Semi-structured interviews	Constant comparative method, thematic analysis	1) Que 2) 2) Sc 3) Rela 4) Rela
<b>7. Williams, et al. (2013)</b>	Experiences of trans-male understanding of sexuality	Not stated	25 natal females identifying as masculine or queer gender identity	Interviews	Thematic analysis	Tightly co 1) Sexu 2) Sexu Moderatel 1) Sexu 2) Pene Loosely co 1) Sexu 2) Sexu

## **Appendix F: Critical appraisal skills programme checklist**

### **Screening questions**

1. Was there a clear statement of the aims of the research?

Consider:

- What was the goal of the research?
- Why it was thought important?
- Its relevance

☐Yes ☐No ☐Can't tell

2. Is a qualitative methodology appropriate?

Consider:

- If the research seeks to interpret or illuminate the actions and/or subjective experiences of research participants
- Is qualitative research the right methodology for addressing the research goal?

☐Yes ☐No ☐Can't tell

Is it worth continuing?

### **Detailed questions**

3. Was the research design appropriate to address the aims of the research?

Consider:

- If the researcher has justified the research design (e.g. have they discussed how they decided which method to use)?

☐Yes☐No☐Can't tell



4. Was the recruitment strategy appropriate to the aims of the research?

Consider:

- If the researcher has explained how the participants were selected
- If they explained why the participants they selected were the most appropriate to provide access to the type of knowledge sought by the study
- If there are any discussions around recruitment (e.g. why some people chose not to take part)

☐ Yes ☐ No ☐ Can't tell

5. Was the data collected in a way that addressed the research issue?

Consider:

- If the setting for data collection was justified
- If it is clear how data were collected (e.g. focus group, semi-structured interview etc.)
- If the researcher has justified the methods chosen
- If the researcher has made the methods explicit (e.g. for interview method, is there an indication of how interviews were conducted, or did they use a topic guide)?
- If methods were modified during the study. If so, has the researcher explained how and why?
- If the form of data is clear (e.g. tape recordings, video material, notes etc)
- If the researcher has discussed saturation of data

☐ Yes ☐ No ☐ Can't tell

6. Has the relationship between researcher and participants been adequately considered?

Consider:

- If the researcher critically examined their own role, potential bias and influence during
  - (a) Formulation of the research questions
  - (b) Data collection, including sample recruitment and choice of location

- How the researcher responded to events during the study and whether they considered the implications of any changes in the research design

☐ Yes ☐ No ☐ Can't tell

7. Have ethical issues been taken into consideration?

Consider:

- If there are sufficient details of how the research was explained to participants for the reader to assess whether ethical standards were maintained
- If the researcher has discussed issues raised by the study (e.g. issues around informed consent or confidentiality or how they have handled the effects of the study on the participants during and after the study)
- If approval has been sought from the ethics committee

☐ Yes ☐ No ☐ Can't tell

8. Was the data analysis sufficiently rigorous?

Consider:

- If there is an in-depth description of the analysis process
- If thematic analysis is used. If so, is it clear how the categories/themes were derived from the data?
- Whether the researcher explains how the data presented were selected from the original sample to demonstrate the analysis process
- If sufficient data are presented to support the findings
- To what extent contradictory data are taken into account
- Whether the researcher critically examined their own role, potential bias and influence during analysis and selection of data for presentation

☐ Yes ☐ No ☐ Can't tell

9. Is there a clear statement of findings?

Consider:

- If the findings are explicit
- If there is adequate discussion of the evidence both for and against the researchers arguments
- If the researcher has discussed the credibility of their findings (e.g. triangulation, respondent validation, more than one analyst)
- If the findings are discussed in relation to the original research question

☐Yes ☐No ☐Can't tell

10. How valuable is the research?

Consider:

- If the researcher discusses the contribution the study makes to existing knowledge or understanding e.g. do they consider the findings in relation to current practice or policy?, or relevant research-based literature?
- If they identify new areas where research is necessary
- If the researchers have discussed whether or how the findings can be transferred to other populations or considered other ways the research may be used

☐Yes ☐No ☐Can't tell

## Appendix G: REC Favourable ethical approval quantitative



### **Health Research Authority** **NRES Committee East Midlands - Nottingham 1**

The Old Chapel  
Royal Standard Place  
Nottingham  
NG1 6FS

Telephone: 0115 8839695

20 March 2014

<b>Study title:</b>	<b>Nottingham Study of Transgender Individuals (NOSTI). Clinical correlates and outcomes of the treatment pathway for people with gender dysphoria in the United Kingdom.</b>
<b>REC reference:</b>	<b>14/EM/0092</b>
<b>IRAS project ID:</b>	<b>142544</b>

The Research Ethics Committee reviewed the above application at the meeting held on 11 March 2014. Thank you for attending to discuss the application.

We plan to publish your research summary wording for the above study on the HRA website, together with your contact details, unless you expressly withhold permission to do so. Publication will be no earlier than three months from the date of this favourable opinion letter. Should you wish to provide a substitute contact point, require further information, or wish to withhold permission to publish, please contact the REC Manager – Helen Wakefield on 0115 8839695.

#### **Ethical opinion**

The chair introduced himself and the committee and thanked the researchers for attending the meeting.

The committee thanked the researchers for an interesting study.

The committee asked the researchers will participants have to meet every inclusion criteria to participate in the study. The researchers advised that participants that have had either treatment would be part of the inclusion criteria of the study.

The committee asked the researchers why participants would not be given 24 hours' notice to consent to participating in the trial. The researchers advised participants would be given a study pack to read through and have the opportunity to discuss with their support team prior to

participating in the study and agreed that participants should have more than 24h hours to complete the consent form. Participants can return their questionnaires and consent form in the self-addressed envelope that is provided.

The committee asked the researchers have participants already completed the questionnaires beforehand at the clinic as this could be a repetitive process for participants. The researchers confirmed that the questionnaires would already been completed six months to a year prior to asking to complete again, participants are happy to complete the questionnaires with the clinic team, as this gives the participant the opportunity to discuss how they are currently feeling and to discuss their emotions at that particular time.

The committee asked the researchers if the body characteristics chart was relevant to trans males and trans females to complete during their transition. The researchers advised that the questionnaire is currently used throughout Europe, for both trans males and trans females and does not cause any distress to participants to complete during their treatment.

The committee advised the researchers that the Participant Information Sheet states the process will cause 'comfort' rather than 'discomfort'. The researchers acknowledged the error.

The committee advised the researchers that there are some 'cut' and 'paste errors within the Participant Information Sheets on the section "what is the purpose" and will be detailed within the decision letter. The researchers acknowledged this.

The committee asked the researchers if they had any questions for the committee. The Researchers advised they did not. The researchers thanked the committee for inviting them.

The members of the Committee present gave a favourable ethical opinion of the above research on the basis described in the application form, protocol and supporting documentation, subject to the conditions specified below.

#### **Ethical review of research sites**

##### **NHS Sites**

The favourable opinion applies to all NHS sites taking part in the study, subject to management permission being obtained from the NHS/HSC R&D office prior to the start of the study (see "Conditions of the favourable opinion" below).

#### **Conditions of the favourable opinion**

The favourable opinion is subject to the following conditions being met prior to the start of the study.

##### The Participant Information Sheets

1. "What are the possible disadvantages of taking part" – Change 'comfort' to 'discomfort' this is applicable to all three information sheets
2. "Will my taking part be kept confidential" Insert a capital D for Data Protection Act 1998. Hormone Treatment for more than 1 year - "what is the purpose", is described as looking for factors following genital reconstructive surgery. The end of the paragraph

- goes back to the influence of hormone treatment.
3. Chest Reconstructive Surgery – “what is the purpose”, introduces genital reconstructive surgery but later revert to the influence of chest reconstructive surgery.

**You should notify the REC in writing once all conditions have been met (except for site approvals from host organisations) and provide copies of any revised documentation with updated version numbers. The REC will acknowledge receipt and provide a final list of the approved documentation for the study, which can be made available to host organisations to facilitate their permission for the study. Failure to provide the final versions to the REC may cause delay in obtaining permissions.**

Management permission or approval must be obtained from each host organisation prior to the start of the study at the site concerned.

*Management permission (“R&D approval”) should be sought from all NHS organisations involved in the study in accordance with NHS research governance arrangements.*

Guidance on applying for NHS permission for research is available in the Integrated Research Application System or at <http://www.rdforum.nhs.uk>.

*Where a NHS organisation’s role in the study is limited to identifying and referring potential participants to research sites (“participant identification centre”), guidance should be sought from the R&D office on the information it requires to give permission for this activity.*

*For non-NHS sites, site management permission should be obtained in accordance with the procedures of the relevant host organisation.*

*Sponsors are not required to notify the Committee of approvals from host organisations*

#### Registration of Clinical Trials

All clinical trials (defined as the first four categories on the IRAS filter page) must be registered on a publically accessible database within 6 weeks of recruitment of the first participant (for medical device studies, within the timeline determined by the current registration and publication trees).

There is no requirement to separately notify the REC but you should do so at the earliest opportunity e.g when submitting an amendment. We will audit the registration details as part of the annual progress reporting process.

To ensure transparency in research, we strongly recommend that all research is registered but for non clinical trials this is not currently mandatory.

If a sponsor wishes to contest the need for registration they should contact Catherine Blewett ([catherineblewett@nhs.net](mailto:catherineblewett@nhs.net)), the HRA does not, however, expect exceptions to be made. Guidance on where to register is provided within IRAS.

**It is responsibility of the sponsor to ensure that all the conditions are complied with before the start of the study or its initiation at a particular site (as applicable).**

### Approved documents

The documents reviewed and approved at the meeting were:

<i>Document</i>	<i>Version</i>	<i>Date</i>
Covering Letter		11 February 2014
Investigator CV		January 2014
Participant Consent Form: For patients on hormone treatment for more than 1 year		January 2014
Participant Consent Form: For patients 6 months after genital surgery		January 2014
Participant Consent Form: For patients 6 months after chest reconstructive surgery	1	27 January 2014
Participant Information Sheet: For patients on hormone treatment for more than 1 year	1	27 January 2014
Participant Information Sheet: For patients 6 months after genital surgery	1	27 January 2014
Participant Information Sheet: For patients 6 months after chest reconstructive surgery	1	27 January 2014
Protocol	1	27 January 2014
Questionnaire: Questionnaire Pack	1	27 January 2014
REC application	142544/5630 97/1/617	10 February 2014

### Membership of the Committee

The members of the Ethics Committee who were present at the meeting are listed on the attached sheet.

### Statement of compliance

The Committee is constituted in accordance with the Governance Arrangements for Research Ethics Committees and complies fully with the Standard Operating Procedures for Research Ethics Committees in the UK.

### After ethical review

#### Reporting requirements

The attached document "After ethical review – guidance for researchers" gives detailed guidance on reporting requirements for studies with a favourable opinion, including:

- Notifying substantial amendments
- Adding new sites and investigators
- Notification of serious breaches of the protocol
- Progress and safety reports
- Notifying the end of the study

The NRES website also provides guidance on these topics, which is updated in the light of changes in reporting requirements or procedures.

Feedback

You are invited to give your view of the service that you have received from the National Research Ethics Service and the application procedure. If you wish to make your views known please use the feedback form available on the website.

Further information is available at National Research Ethics Service website > After Review

<b>14/EM/0092</b>	<b>Please quote this number on all correspondence</b>
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We are pleased to welcome researchers and R & D staff at our NRES committee members' training days – see details at <http://www.hra.nhs.uk/hra-training/>

With the Committee's best wishes for the success of this project.

Yours sincerely

Email: [NRESCommittee.EastMidlands-Nottingham1@nhs.net](mailto:NRESCommittee.EastMidlands-Nottingham1@nhs.net)

Enclosures: *List of names and professions of members who were present at the meeting and those who submitted written comments*  
*"After ethical review – guidance for researchers" [SL-AR2](#)*

Copy to:



**NRES Committee East Midlands - Nottingham 1**  
**Attendance at Committee meeting on 11 March 2014**

**Committee Members:**

<i>Name</i>	<i>Profession</i>	<i>Present</i>	<i>Notes</i>
Dr Clive Cassell	Research Fellow	Yes	
	Professor of Clinical Neurology	Yes	
	Retired Staff Grade Community Paediatrician	Yes	
	Lay Member	Yes	
	Lay member	Yes	
	Surgical Registrar GMC registration maintained	Yes	
	Barrister / Pharmacist	Yes	
	Lay member	No	
	Consultant Physician	Yes	
	Lay member	Yes	
	Lay member	Yes	
	Lay member	Yes	

**Also in attendance:**

<i>Name</i>	<i>Position (or reason for attending)</i>
I	REC Manager

## Appendix H: REC favourable ethical approval qualitative



### Health Research Authority

#### NRES Committee East Midlands - Nottingham 2

Royal Standard Place  
Nottingham  
NG1 6FS

Telephone: 0115 8839437

21 May 2015

<b>Study title:</b>	<b>A thematic analysis of the psychological impact of cross-sex hormone treatment for people with Transsexualism</b>
<b>REC reference:</b>	<b>15/EM/0172</b>
<b>IRAS project ID:</b>	<b>176862</b>

Thank you for your letter of 8<sup>th</sup> May 2015, responding to the Committee's request for further information on the above research and submitting revised documentation.

The further information has been considered on behalf of the Committee by the Vice-Chair.

We plan to publish your research summary wording for the above study on the HRA website, together with your contact details. Publication will be no earlier than three months from the date of this favourable opinion letter. The expectation is that this information will be published for all studies that receive an ethical opinion but should you wish to provide a substitute contact point, wish to make a request to defer, or require further information, please contact the REC Manager, Ms Carolyn Halliwell, [NRESCommittee.EastMidlands-Nottingham2@nhs.net](mailto:NRESCommittee.EastMidlands-Nottingham2@nhs.net). Under very limited circumstances (e.g. for student research which has received an unfavourable opinion), it may be possible to grant an exemption to the publication of the study.

#### Confirmation of ethical opinion

On behalf of the Committee, I am pleased to confirm a favourable ethical opinion for the above research on the basis described in the application form, protocol and supporting documentation as revised, subject to the conditions specified below.

### Conditions of the favourable opinion

The favourable opinion is subject to the following conditions being met prior to the start of the study.

**You should notify the REC in writing once all conditions have been met (except for site approvals from host organisations) and provide copies of any revised documentation with updated version numbers. The REC will acknowledge receipt and provide a final list of the approved documentation for the study, which can be made available to host organisations to facilitate their permission for the study. Failure to provide the final versions to the REC may cause delay in obtaining permissions.**

Management permission or approval must be obtained from each host organisation prior to the start of the study at the site concerned.

*Management permission ("R&D approval") should be sought from all NHS organisations involved in the study in accordance with NHS research governance arrangements.*

Guidance on applying for NHS permission for research is available in the Integrated Research Application System or at <http://www.rdforum.nhs.uk>.

*Where a NHS organisation's role in the study is limited to identifying and referring potential participants to research sites ("participant identification centre"), guidance should be sought from the R&D office on the information it requires to give permission for this activity.*

*For non-NHS sites, site management permission should be obtained in accordance with the procedures of the relevant host organisation.*

*Sponsors are not required to notify the Committee of approvals from host organisations*

### Registration of Clinical Trials

All clinical trials (defined as the first four categories on the IRAS filter page) must be registered on a publically accessible database. This should be before the first participant is recruited but no later than 6 weeks after recruitment of the first participant.

There is no requirement to separately notify the REC but you should do so at the earliest opportunity e.g. when submitting an amendment. We will audit the registration details as part of the annual progress reporting process.

To ensure transparency in research, we strongly recommend that all research is registered but for non-clinical trials this is not currently mandatory.

If a sponsor wishes to request a deferral for study registration within the required timeframe, they should contact [hra.studyregistration@nhs.net](mailto:hra.studyregistration@nhs.net). The expectation is that all clinical trials will be registered, however, in exceptional circumstances non registration may be permissible with prior agreement from NRES. Guidance on where to register is provided on the HRA website.

**It is the responsibility of the sponsor to ensure that all the conditions are complied with before the start of the study or its initiation at a particular site (as applicable).**

#### **Ethical review of research sites**

##### **NHS sites**

The favourable opinion applies to all NHS sites taking part in the study, subject to management permission being obtained from the NHS/HSC R&D office prior to the start of the study (see "Conditions of the favourable opinion" below).

#### **Approved documents**

The final list of documents reviewed and approved by the Committee is as follows:

<i>Document</i>	<i>Version</i>	<i>Date</i>
Covering letter on headed paper [Project Covering Letter]	v1	01 April 2015
Covering letter on headed paper [Project Covering Letter]	2	08 May 2015
Evidence of Sponsor insurance or indemnity (non NHS Sponsors only) [Insurance & Indemnity from Sponsor]	1	01 April 2015
Interview schedules or topic guides for participants [Interview Schedule]	2	08 May 2015
IRAS Checklist XML [Checklist_02042015]		02 April 2015
Letters of invitation to participant [Letter of Invitation]	v1	01 April 2015
Participant consent form [Participant Consent Form]	v1	01 April 2015
Participant information sheet (PIS) [Participant Information Sheet]	2	08 May 2015
REC Application Form [REC_Form_02042015]		02 April 2015
Research protocol or project proposal [Research Protocol]	2	08 May 2015
Summary CV for Chief Investigator	1	16 March 2015
Summary CV for student [C\]	v1	01 April 2015
Summary CV for supervisor	1	01 April 2015

#### **Statement of compliance**

The Committee is constituted in accordance with the Governance Arrangements for Research Ethics Committees and complies fully with the Standard Operating Procedures for Research Ethics Committees in the UK.

#### **After ethical review**

##### Reporting requirements

The attached document "*After ethical review – guidance for researchers*" gives detailed guidance on reporting requirements for studies with a favourable opinion, including:

- Notifying substantial amendments
- Adding new sites and investigators
- Notification of serious breaches of the protocol

- Progress and safety reports
- Notifying the end of the study

The HRA website also provides guidance on these topics, which is updated in the light of changes in reporting requirements or procedures.

#### **User Feedback**

The Health Research Authority is continually striving to provide a high quality service to all applicants and sponsors. You are invited to give your view of the service you have received and the application procedure. If you wish to make your views known please use the feedback form available on the HRA website:

<http://www.hra.nhs.uk/about-the-hra/governance/quality-assurance/>

#### **HRA Training**

We are pleased to welcome researchers and R&D staff at our training days – see details at <http://www.hra.nhs.uk/hra-training/>

<b>15/EM/0172</b>	<b>Please quote this number on all correspondence</b>
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With the Committee's best wishes for the success of this project.

Yours sincerely

Email: NRESCommittee.EastMidlands-Nottingham2@nhs.net

*Enclosures:* "After ethical review – guidance for researchers"

*Copy to:*

## Appendix I: R&D favourable ethical approval qualitative

positive

Nottinghamshire Healthcare 

NHS Foundation Trust

Research and Development

Nottinghamshire Healthcare NHS Foundation Trust

Duncan Macmillan House

Porchester Road

Mapperley

Nottingham

NG3 6AA

**Study title:** A thematic analysis of the psychological impact of cross-sex hormone treatment for people with Transsexualism

**Sponsor:** Leicestershire Partnership NHS Trust

**IRAS/REC ID:** 15/EM/0172

Thank you for submitting your project to the Nottinghamshire Healthcare NHS Foundation Trust's R&D Department. The project has now been given NHS permission by:

Dr Julie Hankin: R & D Director, on behalf of Nottinghamshire Healthcare NHS Foundation Trust

NHS permission for the above research has been granted on the basis described in the application form, study protocol and supporting documentation. The following documents were reviewed:

Document	Version	Date
Consent Form	1	01/04/2015
Interview Schedule	2	08/05/2015
Participant Information Sheet	2	08/05/2015
Research Protocol	2	08/05/2015

Permission is granted on the understanding that the study is conducted in accordance with the Research Governance Framework, ICH GCP [ONLY if applicable], and NHS Trust policies and procedures available <http://www.nottinghamshirehealthcare.nhs.uk/contact-us/freedom-of-information/policies-and-procedures/>

The research sponsor or the Chief Investigator, or the local Principal Investigator at a research site, may take appropriate urgent safety measures in order to protect research participants against any

The Resource, Duncan Macmillan House, Porchester Road, Nottingham NG3 6AA  
Chair: Professor Dean Fathers, Chief Executive: Ruth Hawkins



INVESTORS  
IN PEOPLE | Silver

immediate hazard to their health or safety. The R&D office should be notified that such measures have been taken. The notification should also include the reasons why the measures were taken and the plan for further action. The R&D Office should be notified within the same time frame of notifying the REC and any other regulatory bodies. All amendments (including changes to the local research team) need to be submitted in accordance with guidance in IRAS.

Please note that the NHS organisation is required to monitor research to ensure compliance with the Research Governance Framework and other legal and regulatory requirements. This is achieved by random audit of research.

## **Appendix J: Quantitative PIS and consent**

### **Patient Information Sheet**

(Please retain this information sheet for your own reference)

#### **Clinical correlates and outcomes of treatment for trans people**

##### **Introduction**

You are invited to take part in our research project. Please read this information sheet carefully. It is important for you to understand why the research is being done and what it would involve if you agree to take part. If you have any questions please contact one of the researchers – contact details are at the end of this sheet. Please take time to consider whether or not you wish to take part.

##### **What is the purpose of this study?**

The purpose of this research study is to identify what influence treatment has on the overall quality of life, mental health, self-esteem, body image, social support and interpersonal function of people with gender dysphoria. People who have gender dysphoria face a number of difficulties unique to their gender identity or gender presentation. These difficulties can be alleviated through treatment, including hormone therapy and gender surgery. This study will help researchers and clinicians better understand the role hormone treatment plays in the overall treatment pathway of people with gender dysphoria.

##### **Why have I been chosen?**

All patients attending the Nottingham Gender Clinic will be invited to take part in this research project. We need to know how they were before treatment, after hormones and after surgery.

You have been invited to take part because you meet the recruitment criteria for the research project.

##### **Who is organising the study?**

##### **Do I have to take part?**

Your help in the study is entirely voluntary. If you do not want to take part, you do not have to give a reason. If you do take part and later decide to withdraw from the study, you have the right to have your data withdrawn and destroyed at any time up until publication. You do not have to give a reason to withdraw.

##### **What do I have to do?**

If you have any questions or concerns, please do not hesitate to contact the researchers before proceeding (contact details are provided at the end of this sheet).



**What if I have any other questions or concerns?**

If you have any questions or concerns about this study, please contact one of the researchers.

Telephone: 0115 915 3367

If you would like independent advice about taking part in research, you may wish to contact Patient Advice Liaison Service (PALS):

Tel: 0800 015 3367

Website: [www.pals.nhs.uk](http://www.pals.nhs.uk) (for general information only)

**Thank you for taking the time to read this information sheet and for considering taking part in the study. Please retain this information sheet for future reference.**

**Clinical correlates and outcomes of treatment for trans people**

**INFORMED CONSENT**

**(to be completed after Participant Information Sheet has been read)**

***Please read the following carefully. Please initial each box and sign at the bottom to show you have read and understood what is expected of you.***

I hereby give my consent to participate in the questionnaire study clinical correlates and outcomes of treatment a  
**that:**

The purpose and details of the study have been explained to me in the attached information sheet. I understand that this study is designed to further scientific knowledge and that all procedures have been approved by the regional Ethics Committee.

☐

I have read and understood the Patient Information Sheet

☐

I have been informed that my participation in the study will involve completing a set of questionnaires and that my responses will be kept anonymous and confidential.

☐

I understand that relevant sections of my medical notes and data collected

☐

I understand that I am under no obligation to take part in the study; I have the right to withdraw at any stage for any reason; and that I will not be required to explain my reasons for withdrawing.

☐

Your name

---

Your Signature

---

Date

---

## Appendix K: Example of IPA analysis

Interview One

Meghan Thurston

	<p><b>Interviewer</b></p> <p>So when you say improved, could you explain that in a bit more detail?</p>	<p>Descriptive Linguistic Conceptual</p>
Shift from binary to fluid	<p><b>Respondent</b></p> <p>I guess like quite, um, like I've heard of it being described as like going from <b>living in black and white to living in colour</b> and stuff like that. Like</p>	Overall shift from generalise personalising experience, m
Sense of ability to feel emotions	<p>just a feeling of just general, um, <b>depression</b> and just <b>lack of interest in myself and the world</b> beforehand, like, yeah and <b>humb sort of feeling</b></p>	Gender binary – able to exp
Feelings	<p><b>and that's all been lifted slowly</b>. I mean it's been like rough cos</p>	Low – internal and external influencing
Low/depression	<p>obviously <b>I've had more like problems in life as a result of transitioning</b></p>	Lack of feeling
Fluctuating psychological wellbeing	<p><b>but, yeah, as a person, yeah I've improved, I don't have those problems anymore. I feel much better and happier, and people who know me all say the same thing.</b></p>	A fog?
Defended	<p><b>Interviewer</b></p>	Chain of events with a posit
Hesitant	<p>Okay, so it's improved but you said there's been problems as well?</p>	
Impact to relationships	<p><b>Respondent</b></p> <p>But I mean that's like trouble with my mum, she wasn't very happy <b>(laughs)</b> She, uh, well she sort of, it was like my twenty-first birthday I</p>	Laughing – feeling awkward mother's reaction

## **Appendix L: Statement of epistemological position**

The current mixed methods research was conducted according to a critical realist epistemological orientation. Johnson and Onwuegbuzie (2004) argue that researchers should be able to freely ‘switch’ between alternative paradigms (qualitative and quantitative) in order to develop a comprehensive analysis. Methods should be used in combination so they complement each other (Creswell *et al.*, 2004). A critical realist position maintains that reality exists from which theories can be generated, however, reality is mediated through the discourses available to us, and our own investigative interests (Sayer, 2004). Critical realists argue that the research question should dictate the choice of method, and that most effective approaches adopt a quantitative and qualitative methods (Olsen, 2002) and how they are used jointly to adequately address the research question (Pratschke, 2003). Consequently, a critical realist orientation is suitable for mixed methods research as it maintains the central tenant that there is a reality but that our perceptions of this reality are shaped by feedback from the aspects of reality that are accessible (Sayer, 2004); it combines a realist ontology with an interpretative epistemology (Bhaskar, 1998).

Interpretative phenomenological analysis (IPA) is commonly used in psychological research and is theoretically rooted in critical realism (Bhaskar, 1978). IPA capitalises on the researcher’s interpretation of the interviewee’s experience (Smith *et al.*, 1999), which is consistent with a critical realist orientation. In relation to the current study and developing an understanding of the psychological impact of gender transition, the researcher was mindful of the multiple perceptions of reality.

## **References**

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## Appendix M: Qualitative topic guide

Topic Guide v2 08/05/2015

### Photo Elicitation Topic Guide

#### **Introduction**

- **Introduction:** Thank you for attending today's photo elicitation interview. My name is Meghan Thurston, I'm currently a Trainee Clinical Psychologist at the University of Leicester. As part of the course I am currently undertaking a study that aims to understand the psychological impact of receiving cross-sex hormone treatment for individuals with Transsexualism.
- **Aims and Structure:** Thank you for agreeing to take part in the photo elicitation interview. It should last approximately one hour to one and a half hours. The interview will use the photographs you took to facilitate a discussion about your psychological well-being during cross-sex hormone treatment. We will use the photographs to reflect on your experiences. I am interested in your story so there are no right or wrong answers.
- **Consent:** You may remember that you previously read an Information Sheet and completed the consent form when we first met. I would just like to check if you have any further questions before we start.
- **Confidentiality:** Anything that is discussed during the interview will remain confidential. The interview will be audio recorded, the tapes will be securely stored and once transcribed, will be deleted. The photographs will be stored in your electronic medical file. Quotations and photographs from the interview may be used in the research report however, any identifiable information will be changed. If at any point during the interview the conversation raises any concerns regarding your safety or the safety of others I will discuss this with your clinician to make sure the most appropriate support is received. I just want to remind you that if at any point you would like to end the interview please let me know. Do you have any questions before we start.

### **Photograph Selection**

*Interviewees will be shown the developed photographs.*

On the screen are the photographs you took over the course of three months. Could you please select up to four/five photographs that you would like to use during the interview to discuss your psychological well-being in relation to cross-sex hormone treatment.

[Interviewee to select the photographs]

Could you please rank the photographs in the order you would prefer to talk about them.

### **Topic Guide**

#### **1) What has been your overall experience of your psychological well-being during transition?**

*Prompts:*

*Could you say a little more about that?*

*Can you give me a more detailed description?*

#### **Photographs – use for each photograph**

#### **2) What does this photograph represent of your psychological well-being experience during transition**

*Prompts:*

*How does this relate to your transition?*

*Could you say a little more about that?*

*Can you give me a more detailed description?*

*What was that like for you?*

*How did you feel about this?*

*What thoughts did you have?*

*How did you feel at that particular moment?*

*Do you mean that. . . ?*

**3) How did you find the process of photographing images related to your psychological well-being?**

*Prompts:*

*Was it easy/hard?*

**Debrief**

Thank you for taking the time to participate in the interview. How do you feel after talking about your experiences of psychological well-being and transition?

*If the participant has experienced distress, the researcher will do or arrange for a risk assessment to be completed with a clinician. The participant will be informed that the clinician will be informed to provide support and the content of the interview will not be disclosed unless it breaches the boundaries of confidentiality. At the end of the interview, a review of the Information Sheet highlighting contact details and how a copy of the final report can be obtained. Their clinician will also be available on the day of the interview if they require a separate debrief.*

Thank you again for participating and taking the time to share your thoughts.



## Appendix N: Qualitative PIS and consent form

Participant Information Sheet v2 08/05/2015



### Interviewee Information Sheet

(Please retain this information sheet for your own reference)

### Photo elicitation interview for Trans individuals

#### Introduction

This is a collaborative project between the Nottingham Centre for Gender Dysphoria and The University of Leicester.

Please read this information sheet carefully. It is important for you to understand why the research is being done and what it would involve if you agree to take part. If you have any questions please contact one of the researchers – contact details are at the end of this sheet. Please take time to consider whether or not you wish to take part.

#### What is the purpose of this study?

The purpose of this research study is to identify what influence cross-sex hormone treatment has on psychological well-being. People with Transsexualism experience different emotions related to their gender identity or presentation during cross-sex hormone treatment. This study will help researchers and clinicians better understand the relationship between hormone treatment and psychological well-being.

#### Why have I been chosen?

We are interested in recruiting participants who have been given a formal diagnosis of Transsexualism by their clinician and have started cross-sex hormone treatment. Participants must be 18 years or older.

You have been invited to take part because you meet the recruitment criteria for the research project.

**Who is organising the study?**

**Do I have to take part?**

Your help in the study is entirely voluntary. If you do not want to take part, you do not have to give a reason. If you do take part and later decide to withdraw from the study, you have the right to have your data withdrawn and destroyed at any time up until publication. You do not have to give a reason to withdraw.

**What do I have to do?**

If you have any questions or concerns, please do not hesitate to contact the researcher before proceeding (contact details are provided at the end of this sheet). If you are interested in taking part and have no further questions, you will first need to contact the researcher on the contact details provided at the end of this information sheet.

If you decide to take part you will be asked to use a digital camera to take a minimum of ten photographs over a period of three months to represent your journey through transition in relation to your psychological well-being. Following this you would be invited to an interview. The interview would take place at the up to one hour. During this on about your transition in relation to cross sex hormone treatment, your psychological well-being, and how these are related.

**What are the possible disadvantages of taking part?**

The interview should not cause you any discomfort or distress. However, if you do feel distressed at any point during the study we would strongly advise you to talk to your clinician. Alternatively you may wish to speak to your local GP or The Samaritans (telephone no: 08457 909090).

If you decide not to take part in the study, your decision will in no way affect your care at the Nottingham Centre for Gender Dysphoria.

**What**

There are no benefits of participating in this study but your participation in this study may help clinicians and researchers understand what the influence is of cross-sex hormone treatment and psychological well-being in individuals with Transsexualism. If you wish to receive a summary of the study's findings on completion of the project, you may request this from the researcher via email.

**Will my taking part in this study be kept confidential?**

All information given will be kept strictly confidential and will only be accessible to the clinical and research team at the research team from the University of Leicester. In the unlikely event that a risk to yourself or others is disclosed confidentiality would be breached in line with standard NHS practice. All interview data will be assigned a pseudonym to achieve anonymity. Interview transcripts will be stored in a locked filing cabinet and photographs in electronic media. Dysphoria. Any images of individuals will be pixelated. Data will be stored for five years following completion of the study and destroyed thereafter, in accordance with University of Leicester guidelines. The procedure for handling, processing, storage and destruction of your data will be compliant with the Data Protection Act 1998.

**What happens if I don't want to carry on with the study?**

You can withdraw from the study at any time without giving a reason for doing so. If you wish to withdraw, your data will be discarded from the study and subsequently destroyed. Again this decision will not affect your care at the Nottingham Centre for

**What will happen to the results of the research study?**

for School of Psychology and may be published in academic journals and presented at research conferences. It will also be used towards the completion of a DClin Psych qualification. Also a summary of the study's findings will be made available on request to participants on completion of the study.

**Who has reviewed the study?**

This study has been reviewed and was given a favourable ethical opinion for conduct by Nottingham 2 NHS Research and Ethics Committee.

**What if I have any other questions or concerns?**

If you have any questions or concerns about this study, please contact one of the researchers.

If you would like independent advice about taking part in research, you may wish to contact Patient Advice Liaison Service (PALS):

Tel: 0800 015 3367

Website: [www.pals.nhs.uk](http://www.pals.nhs.uk) (for general information only)

**Thank you for taking the time to read this information sheet and for considering taking part in the study. Please retain this information sheet for future reference.**

**Informed Consent**

**(to be completed after Participant Information Sheet has been read)**

**Photo elicitation interview for Transsexual individuals**

***Please read the following carefully. Please initial each box and sign at the bottom to show you have read and understood what is expected of you.***

The purpose and details of the study have been explained to me. I understand that this study is designed to further scientific knowledge and that all procedures have been approved by the regional Ethics Committee.

☐

I have read and understood the Patient Information Sheet, dated xx/xx/2015, and have had an opportunity to ask the researcher questions regarding the procedures of the study.

☐

I have been informed that my participation in the study will involve taking photographs and participating in an interview and that all data will be kept anonymous and confidential.

☐

I understand that I am under no obligation to take part in the study; I have the right to withdraw at any stage for any reason; and that I will not be required to explain my reasons for withdrawing.

☐

Your name

\_\_\_\_\_

Your Signature

\_\_\_\_\_

Signature of Investigator

\_\_\_\_\_

Date

\_\_\_\_\_

## **Appendix O: Timeline of research process**

### *December 2013*

Initial meeting with research supervisor

Initial research proposal

### *January 2014*

Preparation of quantitative proposal for REC and R&D

Quantitative REC and R&D application

### *March 2014*

Quantitative REC and R&D approval

### *March 2014 – March 2016*

Quantitative recruitment

### *May 2014*

Internal review process at University of Leicester

Service user reference group review

Preparation of qualitative proposal for REC and R&D

### *January 2015*

Qualitative REC and R&D Application

### *April 2015*

Qualitative REC meeting

Qualitative REC meeting amendments

### *May 2015*

Qualitative REC and R&D approval

### *May 2015 – March 2016*

Qualitative recruitment



Interviewing

Transcribing

Analysis

*December 2015 – April 2016*

Write up period

*April 2016*

Submission of DClin Psy thesis to the University of Leicester

*May 2016 – July 2016*

Viva preparation

*May 2016 – September 2016*

Dissemination of findings

Preparation for conference, and peer reviewed publication

## Appendix P: Sample size

Questionnaire	T1	T2
HADS anxiety	60	60
HADS depression	60	60
RSE self-esteem	60	59
MSPSS social support	60	59
IIP interpersonal functioning	53	56
HBDS body dysphoria	59	58

## Appendix Q: Test for normality

### Untransformed data

Tests for Normality						
	Kolmogorov-Smirnov Test <sup>a</sup>			Shapiro-Wilk Test		
	Statistic	df	Sig.	Statistic	df	Sig.
Total HADS anxiety	.12	60	.05	.97	60	.14
Total HADS depression	.14	60	.01	.94	60	.01
Total RSE	.11	60	.05	.97	60	.11
Total MSPSS	.28	59	.00	.84	59	.00
Total IIP-32	.12	60	.05	.94	60	.00
Total HBDS	.10	53	.20*	.97	53	.16

\*. This is a lower bound of the true significance.

a. Lilliefors significance correction

### Transformed data

Tests for Normality						
	Kolmogorov-Smirnov Test <sup>a</sup>			Shapiro-Wilk Test		
	Statistic	df	Sig.	Statistic	df	Sig.
Total HADS depression	.132	60	.011	.957	60	.035
Total MSPSS	.155	60	.001	.884	60	.000

\*. This is a lower bound of the true significance.

a. Lilliefors significance correction

## Appendix R: HADS clinical cut off data

Clinical cut off	HADS anxiety	HADS depression
Normal	30	40
Mild	17	12
Moderate	12	8
Severe	1	0

## Appendix S: Full inter-correlation table

	HADS anxiety	HADS depression
HADS anxiety	1	-.485**
RSE self-esteem	-.700**	-.446**
MSPSS social support	-.296*	-.337**
IIP interpersonal functioning	.769**	.528**
HBDS body dysphoria	.303*	.369**

\*\* . Correlation is significant at the 0.01 level (2-tailed).

\* . Correlation is significant at the 0.05 level (2-tailed).

## Appendix T: Assumptions for multiple regression

### *Multicollinearity*

All IV's showed above .3 correlation with the DV's demonstrating a relationship. Although the correlation between HADS anxiety and self-esteem, and HADS anxiety and interpersonal functioning exceeded the preferred guideline of .7 correlation a principal component analysis was not performed as both tolerance (was not less than .10) and VIF (was not above 10) indicated that there was no violation of multicollinearity.

Collinearity statistics		
Scale	Tolerance	VIF
RSE self-esteem	.528	1.895
MSPSS social support	.844	1.185
IIP interpersonal functioning	.538	1.402
HBDS body dysphoria	.713	1.858

### *Outliers, normality, linearity, homoscedasticity, independence of residuals*

The normal p-p lot of regression standardized residuals indicates a reasonably straight diagonal line. The scatterplot indicates a roughly rectangular distribution and importantly no systematic patterns of residuals. There were no standardized residuals (outliers) more than 3.3 or less than -3.3 (Pallant, 2013) and Mahalanobis distance (maximum = 11.471) did not exceed the recommended critical value or 18.47 for four IVs (Tabachnick & Fidell, 2007).

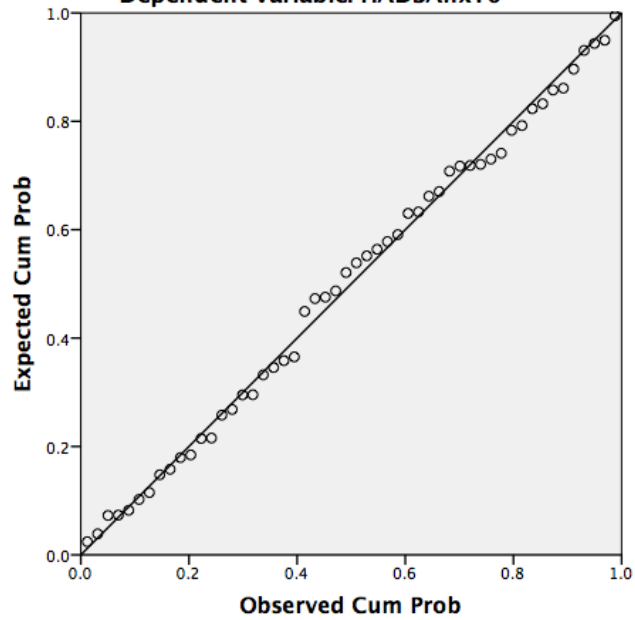
## References

Pallant, J. (2013). *SPSS Survival Manual* (5th Ed.). Berkshire: Open University Press

Tabachnick, B. G. & Fidell, L. S. (2007). *Using multivariate statistics* (5th Ed). Boston: Pearson Education.

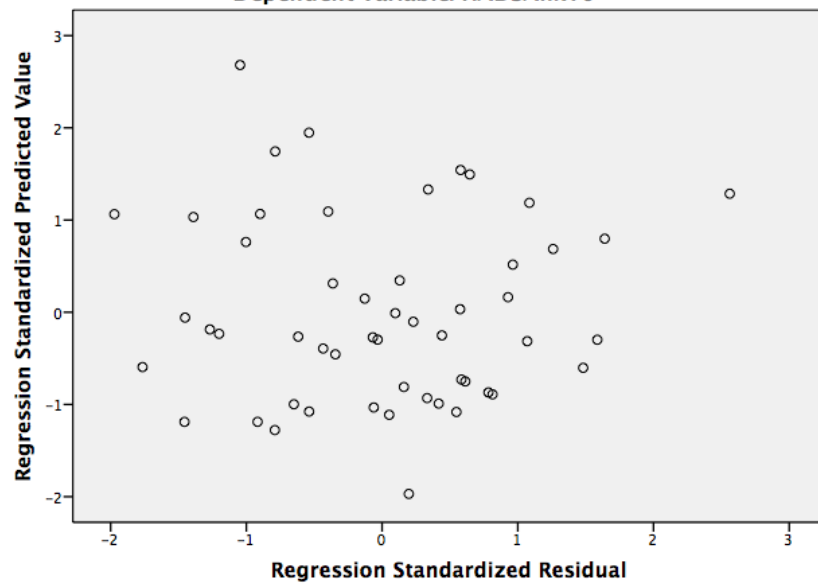
**Normal P-P Plot of Regression Standardized Residual**

**Dependent Variable: HADSAnxT0**

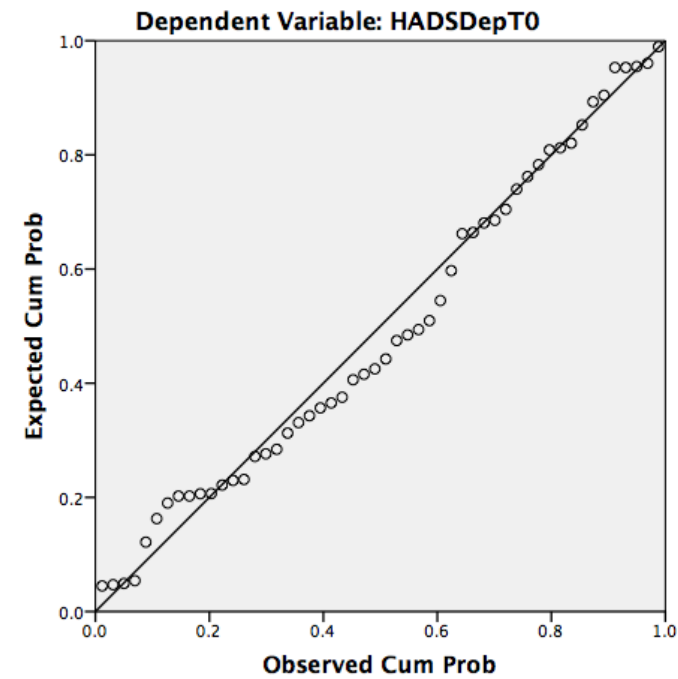


**Scatterplot**

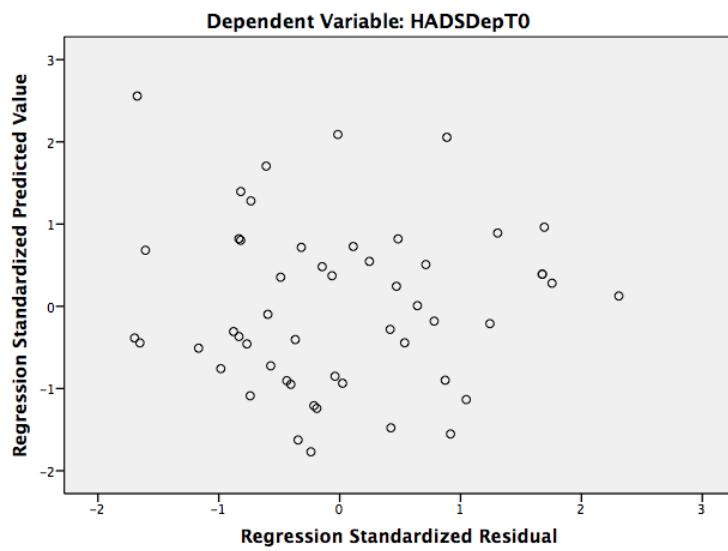
**Dependent Variable: HADSAnxT0**



**Normal P-P Plot of Regression Standardized Residual**



**Scatterplot**





## Appendix U: Flowchart of quantitative and qualitative results

