Measuring Levels of Trait Self-compassion in Gender Diverse Young People and the Relationships between Self-compassion and Psychological Outcomes for this Group

Chloe Elizabeth Doughty

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The candidate confirms that the work submitted is her own and that appropriate credit has been given where reference has been made to the work of others.

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List of Services

All Sorts Youth Pride in Hull

Arcus LGBT Pride in Gloucester Base 51 O Youth Bedford Basildon Pride Queer Asian Youth Be You **QTIBPOC** Creatives Birmingham LGBT Reddit Non-Binary UK **BPS Minorities** Reddit Trans UK **Blossom LGB** Rotherham LGBT **BLAGY Group Yorkshire** Sappo Events British Asian LGBT Sarbat Sikhs The Brunswick Centre Sheffield LGBT **CAMHS Network Shout Group**

Clacton Pride Sound Youth Group
Colchester Pride Southend on Sea
Coventry Pride Space Youth Project
Crew 2000 Stockport LGBT
Diversity Role Models Stonewall Housing

Diversity Trust Stroud Pride
Dosti Leicester Stonewall
ELOP LGBT Suffolk pride
Equity Partnership Step Out

Free 2 B Me Sunderland support group

Free 2B Alliance The Proud Trust Gendered Intelligence The Warren

GIDS Stakeholders Group Trade Sexual Health

Hart Gables Trans4me
Herts Pride TransActual

Hull LGBT Forum Trans Hub Nottingham

House of Rainbow Trans Leeds

Just Like Us Trans Pride South West

Lancashire LGBT Trans Radio UK
LGBT Chelt Transtastic

LGB&T Out in the Bay UK Sussex network

Manchester SharksUR PotentialMermaidsThink2SpeakMosaicYeovil PrideNewbury PrideYouth MESMACNon-Binary LeedsYorkshire MESMACOut Youth PlymouthYouth out in OldhamPride BarnsleyYoung Wrexham

Abstract

Background: Adolescence can be an emotionally challenging time for many individuals, characterised by multiple transitions and increased distress (Bluth et al., 2016). For gender diverse individuals, this period is potentially even more meaningful as exploring, understanding, and expressing their gender identity can lead to a range of liberating opportunities as well as challenges. The way in which individuals cope with their experiences can inform whether this transformative period is met with greater ease or distress (Bluth, 2018). When facing adversity, some individuals respond to themselves in a kind and self-compassionate way and feel better able to tolerate uncertainty, whereas others may be more critical of themselves, heightening any underlying feelings of distress (Terry & Leary, 2011). It was hypothesised that there would be a significant indirect effect of self-compassion on psychological distress through tolerance of uncertainty (mediation) in gender diverse youth.

Method: A cross-sectional online survey was used to test the indirect effects model. A total of 78 gender diverse young people were recruited from NHS and community organisations and provided demographic and gender-related information. Self-compassion was assessed using the Self-Compassion Scale (SCS); tolerance of uncertainty was assessed using the Intolerance of Uncertainty Scale for Children (IUSC-12), and psychological distress was assessed using the Revised Children's Anxiety and Depression Scale (RCADS).

Results: High levels of psychological distress were reported by 58.3% of respondents, were raised in 11.5%, and within normal range for 34% of respondents. Hierarchical regression analyses showed that the statistical predictive power of the model including self-compassion and tolerance of uncertainty accounted for 46% of the variance (adjusted $R^2 = .462$). An indirect effects model was calculated using bootstrapping and found that self-compassion predicted reduced psychological distress through increased tolerance of uncertainty in gender diverse youth, supporting the hypothesis. The completely standardised indirect effect was significant as the 95% confidence intervals did not pass zero (b = -0.21; 95% CI: -0.36; -0.07).

Discussion: Findings have supported the understanding of the protective function of trait self-compassion for gender diverse youth. This suggests that cultivating self-compassion in this population could enhance their capacity to tolerate uncertainty in the face of adversity and reduce experiences of distress and improve well-being. However, further clarification of the utility of self-compassion and tolerance of uncertainty is warranted using prospective designs.

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List of Abbreviations

Abbreviation	Meaning
ACE's	Adverse childhood experiences
ACT	Acceptance and Commitment Therapy
ADIS-IV	Anxiety Disorders Interview Schedule for DSM-IV for Children- Child
	and Parent Versions
APA	American Psychological Association
ASC	Autism Spectrum Condition
CAMHS	Child and Adolescent Mental Health Services
CBT	Cognitive Behavioural Therapy
CFT	Compassion Focused Therapy
CORC	Child Outcome Research Consortium
СҮР	Children and young people
GAD	General Anxiety Disorder
GIDS	Gender Identity Development Centre
GMSM	Gender Minority Stress Model
GnRHa	Gonadotropin-releasing hormone analogues
DBT	Dialectical Behaviour Therapy
DSM-V	American Psychiatric Association's Diagnostic and Statistical Manual of
	Mental Disorders, 5 th Edition
ICD 11	The International Classification of Diseases and Related Health
	Problems 11 th Edition
IUSC-12	Intolerance of Uncertainty Scale for Children
MBCT	Mindfulness Based Cognitive Therapy
MSM	Minority Stress Model
NAS	National Autistic Society
NHS	National Health Service
NICE	National Institute for Health and Care Excellence
LGB	Lesbian, Gay, Bisexual
LGBTQ+	Lesbian, Gay, Bisexual, Transgender, Queer and other gender expansive
-	or diverse sexualities
LTC	Long term health condition
PPI	Patient and Public Involvement
RCADS	Revised Children's Anxiety and Depression Scale
SCS	Self-compassion Scale
SRS-2	Social Responsiveness Scale 2 nd edition
UK	United Kingdom
US	United States

Reflexive Position Statement

Given the challenges gender diverse communities have faced, especially in recent times, I feel strongly that this project could make a real contribution to understanding the protective factors and support needs for gender diverse youth. It is important to me to state at an early stage of writing, that this research project does not seek to question or explore any aspect of gender diverse youths' identity, and only seeks to understand how they cope with their experiences. Specifically, it aims to measure how self-compassionate (e.g., being kind to themselves) young people are and how this relates to their broader well-being. It is hoped that by understanding whether self-compassion can influence well-being for gender diverse young people, I can shape the service provisions which are offered to enhance the well-being and quality of life for this group.

As a cisgender heterosexual female, I acknowledge that I am likely to be subject to both conscious and unconscious biases when it comes to researching and reporting on gender diverse lives. Hetero-normative biases are inherently embedded into the structures of western society as it is currently arranged, which unfortunately credit some with relative positions of power or access to benefits and act as barriers to others. I feel I have a responsibility to use my positioning and professional status to try and tackle issues of power and structural bias so as not to double burden those subjected to prejudice and discrimination. I have centred the views of gender diverse voices in my project and have prioritised building in paid roles within the development of the project, alongside gender diverse young people and their caregivers from the community, as well as working closely with the NHS Gender Identity Development Service and third sector organisations. Where possible, I have included research from gender diverse researchers where this is acknowledged to empower gender diverse voices in the literature.

There have certainly been times when I have questioned whether I was best positioned to complete this research, especially when facing challenging aspects of the project, such as the restrictions and impact arising from COVID-19, context of judicial reviews, exposure to relentless and polarised media coverage during recruitment, and occasionally misinterpretation over my intentions of completing research in this area.

At these times, I have found strength in applying principles of self-compassion to myself in parallel to researching this topic area i.e., treating myself with kindness as opposed to criticism, reminding myself as humans we are flawed, and it is normal to make mistakes and it is often the most challenging situations that we learn the most from.

I have utilised regular supervision and sought feedback from gender diverse young people and supporting organisations to shape the direction of my research and alleviate potential research bias. I have tried to be open to listening and learning in these situations, and acknowledging when I have got things wrong and making a commitment to doing better.

"I'm here to get it right, not to be right"

Brené Brown (2021)

I hope that the language used in this paper is balanced and inclusive. Discussion with representatives from the community has guided my use of language based on the knowledge available to us at this point in time. However, given the rapid changes in the use of language and terminology on this topic, I acknowledge the risk that this may not be relatable to all, and may no longer be the most appropriate or helpful terminology in time to come.

I am committed to increasing the visibility of the support needs of gender diverse youth to NHS healthcare services and other organisations to improve routine care and well-being in future. I acknowledge my beliefs only have value if they are reflected in my practice and as a trans ally. I hope this paper is well received as a contribution to making positive changes for gender diverse communities and a small step closer to making the world a safer place for all.

Chapter 1: Literature Review

This first chapter begins with a narrative literature review. A preliminary review of the literature took place in November 2020 to inform the research proposal, searching the University of Leeds digital library and Google Scholar. This revealed a scarcity of research on positive psychological approaches and gender diverse youth at this time. A further review was completed in February 2022 and May 2022 using systematic methods to improve the robustness of the review, which revealed a vast increase of research on this population in recent years. A list of key search terms are outlined in Appendix A. A selection of relevant databases covering psychology and health disciplines were searched to identify relevant research papers, including Ovid MEDLINE, PsychINFO, and Embase between 1806 to the present date. In addition, a review of the Cochrane Database and reference lists of relevant studies identified further relevant papers including grey literature. There were no identified papers exploring the concepts of self-compassion, tolerance of uncertainty and the impact this has on psychological outcomes for gender diverse youth, which provided a strong rationale for the current project.

1.1 Gender Diversity

1.1.1 Key Terminology

Powerful binary discourses surrounding gender exist in many Western societies from the moment a child is born, when the sex is announced based on the appearance of their external genitalia, to the pro-nouns used in early years, how individuals are socialised, assigned occupation (e.g., actor, waitress) and this continues across the lifespan (Di Ceglie, 2014). There are also common discourses resulting from early binary developmental perspectives on the notion of gender permanence and expectations that the discovery of one's identity occurs in adolescence and remains static thereafter (Erikson, 1968). These ideas are largely central to Western understanding and when these gender norms are questioned, it can create uncertainty both for the individual and the networks around them. However, such ideologies are not true to all Western societies which will be further explored in subsequent sections.

When an individual's experienced gender identity differs to the gender assigned to them at birth, some children and young people (CYP) may experience biological, psychological, and social challenges which can evoke a range of emotional experiences. Gender identity has commonly been described as a complex belief system and someone's inherent sense of their gender based on their personal experiences or knowledge of their own gender (American Psychological Association; APA, 2015). For many individuals, their gender identity mirrors their

assigned sex at birth, which is defined as cisgender. This is not the case for approximately 1% of the population in the United Kingdom (UK; Stonewall, 2017) who have gender diverse identities. The term gender diverse describes a group of individuals whose gender identity differs from the gender assigned to them at birth, which is usually determined by someone's biological sex. Biological sex is determined by someone's anatomy which is produced by chromosome composition, hormones, and their interactions (Evans, 2019). Assigned sex at birth is usually categorised as male, female or intersex based on these characteristics.

Gender diverse is an umbrella term which is used to describe a range of gender identities. These include but are not limited to transgender, trans, transmasculine, transfeminine, demi-boy, demi-girl, genderqueer, non-binary, genderfluid, agender, androgyne, demi-neutrois, transneutral, grey gender, a combination of multiple genders, or some individuals prefer not to label their gender at all. Within this research the term gender diverse aims to be inclusive and representative of gender identities that have relevance to CYP involved in this research and the aforementioned descriptors were detailed by CYP taking part in this project. The term gender diverse was felt to be the most inclusive phrase by the CYP involved in reviewing the research materials.

Gender expression refers to how someone chooses to present their identity to the world and varies from person-to-person (APA, 2015). This may be communicated by someone's physical appearance, clothing, or behaviours. Gender expression may or may not conform to cultural or socially defined expectations, for example femininity or masculinity can vary greatly across cultures and time periods. People's preferences and relationships with gendered language are often highly subjective (Langer & Martin, 2007). Money (1955) first defined 'gender role' to describe someone's feelings, behaviour and assertions when considering gender attributes, as opposed to considering only their biological sex. The development of language surrounding gender identity and roles gave rise to new thinking and understanding of gender diverse experiences (Di Ceglie, 2014).

Gender diverse individuals may choose to socially transition, which may include dressing and using the name or pronouns to support the recognition of their experienced gender. Gender transition or reassignment refers to the change process occurring when an individual seeks to align their physicality or outward appearance with their experienced gender. Some individuals choose to physically transition undergoing hormonal treatment or surgery to alter primary or secondary sex characteristics. Not all gender diverse individuals choose to transition and not all

those who socially transition choose to undergo hormonal treatment or gender affirming surgery (Eyler, 2013).

Exploring, understanding, and expressing one's gender identity can be both liberating and affirming for gender diverse youth. However, it can also have associated emotional challenges which have the potential to cause distress. For gender diverse individuals, the process of exploring gender identity holds many unknowns (e.g., how will my gender identity develop? What changes will happen to my body? How people will people respond to my identity? What support will services offer? How long will I have to wait to access services?) which generates a great deal of uncertainty. The prevalence of mental health conditions and suicidal ideation or attempts, are far greater in gender diverse youth than cisgender populations (Reisner et al., 2015; Stonewall, 2017). This may be indicative of difficulties coping in the context of increased stigma and discrimination (Thoma et al., 2019). It is important to mention that not every gender diverse individual will experience distress in relation to their gender identity, however this is often a focus of the existing literature.

Gender diverse individuals may identify as gay, lesbian, heterosexual, bisexual, asexual or a combination of sexual identities. Lesbian, gay, bisexual, transgender, queer, and other gender expansive or diverse sexualities (which include both sexual and romantic attraction) are often abbreviated to LGBTQ+. This term includes both gender and sexual identities. Where LGBT or LGB is stated, this will be to ensure the population or sample is reflective of the group of participants in the source. For some people gender identity and sexuality are linked but for others they are separate entities. It is important not to presume sexual identity based on gender identity alone (Shaw et al., 2012). As with cisgender individuals, sexual identity may change throughout the life course.

The minority stress hypothesis (Meyer, 1995) suggests that when someone is part of a minoritised community as a result of their gender identity or sexuality, marginalisation and the potential for prejudice or abuse greatly increases. Both gender diverse and sexual minority groups face similar minority stresses and have made efforts to try and ameliorate this, though this association has not always been harmonious (Shaw et al., 2012). Marginalisation correlates with experiences of psychological distress which is often exacerbated by intersecting characteristics such as race, sexuality, ability, age, or socioeconomic status (Meyer, 1995). However, adverse events can also drive individual resilience and positive coping (e.g., Meyer, 2003; Singh & McKleroy, 2011). Solidarity and validation experienced within minoritised

communities can be a valuable resource and can act as a buffer to negative external influences such as transphobia (Meyer, 2003; Hendricks & Testa, 2012).

The way in which individuals cope with these experiences can determine whether this transformative period is met with greater ease or distress (Bluth, 2018). This project aims to explore whether certain naturally occurring traits, for example, having a compassionate mindset, or being able to tolerate uncertainty, could support the well-being of gender diverse youth at one of the most meaningful times in their lives, when considering their gender identity during adolescence. The following review of the literature aims to provide an overview of the evidence base, including gender identity development and relevant theoretical perspectives, exploration of psychological vulnerabilities and protective factors which are associated with gender diverse identities which have the potential to prevent or alleviate distress.

1.1.2 Gender Identity Development

In the 18th century, London had a flourishing gay subculture and some of the earliest references to gender diverse identities were reported in underground establishments termed 'Molly Houses' (British Newspaper Archives, 2020). However theoretically, gender diverse identities were largely misunderstood in most Western societies before the 1960's (Di Ceglie, 2014). Early psychodynamic theorists initially suggested issues with parent-infant relationships or trauma were a causal link to gender diversity, though this was never empirically verified (Gray, Carter & Levitt, 2012). Other theories broadly range from essentialist theories which suggest gender identity development is solely biologically determined and are now widely discredited, to postmodernist perspectives which argue gender is socially constructed and influenced by belief systems, and societal or cultural contexts (Abrams, 2020). Today bio-psycho-social perspectives are widely accepted, suggesting development of gender identity is multifaceted resulting from complex interactions between biological (e.g., neurology, genetics, hormones), psychological (e.g., cognition, attachments with others) and social factors (e.g., wider socio-political context, cultural context) (Di Ceglie, 2014, Hidalgo et al., 2013; Marantz & Coates, 1991). Selected theories are explored in more detail below.

Biological Perspectives and Epigenetics. Some theories of gender development incorporate theories around sex development and genetics as they believe they are linked. The aetiology of gender diverse identities and behaviour has also focused on proximal and distal biological influences, including genetic, hormonal, and neural processes. Neurological differences have been linked to differences in the aetiology of gendered behaviour and gender variance (Alanko et al., 2010; McCarthy et al., 2009; Meyer-Bahlburg, 2005). Hormone exposure during

specific times in the perinatal period and adolescence are largely determinant of sex differences in the brain and can impact on hormonal responses across the life course. These differences are also dependent on genetics, which are constantly interacting with the environmental context, known as epigenetics. Such theories place more emphasis on biological predisposition and much less consideration for individual differences such as race, class, or culture. Ideas which are rooted in the notion that biological sex solely determines gender identity are largely viewed as harmful to individuals with gender diverse identities (Abrams, 2020). Some research indicates early life experiences could ultimately influence gene expression making lasting sex differences to the brain which are linked to gendered behaviour and variance without changing underlying DNA (Marrocco & McEwen, 2016). Whilst some believe epigenetics may play a role in gender identity development to some degree, it is more widely accepted that biological sex is not the key determinant of gender identity, or expression (World Health Organisation, WHO; 2022a).

Developmental and Life Span Theories. There is much debate about critical stages of gender identity development. Kohlberg's (1966) developmental theory indicates gender identity is largely established between three and five years of age. However, it is unclear whether this is applicable for gender diverse youth given the limited research in this area, and this theory remains untested in children more broadly. Adolescence is also reported to be one of the most significant stages of gender identity development and integration (Kroger, Martinussen & Marcia, 2010). Individuals are said to explore their gender and make identity related choices and commitments to further establish their gender identity, in turn developing their sense of self as a male or female, however, this theory does not accommodate gender diverse identities. There is much variability between the timing of recognising, understanding, and expressing gender identity in gender diverse youth (James et al., 2016). Therefore, the idea that identity is established at any specific age range is questionable.

One of the most widely accepted theories to support understanding of the development of gender diverse identities is Bilodeau's (2005) stage theory. Bilodeau (2005) adapted D'Augelli's Life Span Model (1994) sexual identity theory to describe similar stages of development which is inclusive of gender diverse identities. These six stages are;

- 1. Leaving a traditionally gendered and/or heterosexual identity
- 2. Developing a personal gender diverse identity
- 3. Developing a social gender diverse identity
- 4. Sharing identity/sexuality status with parents
- 5. Developing an intimate relationship
- 6. Becoming part of the LGBTQ+ community

Qualitative excerpts from the voices of gender diverse individuals across multiple sources were collated to support the stages above (Bilodeau, 2005). This is a strength of this theory as other perspectives lack empirical support. However, for many, sharing their status with their parents or caregivers may not be a significant factor for them and may not be a key component of internal development. In addition, some individuals have no interest in seeking intimate relationships. More broadly, stage development theories tend to presume a linear trajectory and imply there is an idealised endpoint which is not representative of many gender diverse individuals.

Psychosocial Perspectives. Cognitive and social learning theories are now more widely used to describe gender identity development, which suggest that individuals are constantly interacting with their environment, to construct cognitive schemas, such as gender (Martin & Ruble, 2010). It is also more widely recognised that identity is also influenced by nationality and language, as well as political and religious orientations, and can be impacted by our relationships, society, and significant life events across the lifespan (Kroger et al., 2010). The social-cognitive theory of gender identity development (Bussey & Bandura, 1999) posits gender conceptions are constructed from three interrelated systems of influence. Firstly, personal components which have evolutionary origins and include biological potentialities which can result in a broad range of differences. Secondly, behavioural components which include gender conceptions and adopting gender roles for example, and thirdly, environmental components which incorporates social and circumstantial influences. These intersecting components are theorised to inform choices of how gender is conceptualised and expressed and can be helpful in determining the complexities of gender identity.

Diverse Perspectives. Some theoretical positions argue that gender is socially constructed, and binary constructs (i.e., male and female) are arbitrarily defined and reinforced in many Western societies as binary systems are far from universal (Boddington, 2016). However, such ideologies are not true to all Western societies, as First Nations people often have different non-binary understandings, as do people in some parts of South America (Natural History Museum, n.d). Amongst these perspectives are postmodern feminism, which is a stance which emphasises the discourses surrounding defining gender and advocates against hierarchical patriarchal views on gender (Hekman, 2001). In addition, Queer Theory aims to critically examine the way society legitimises and awards power to certain genders or sexualities whilst discriminating against others (e.g., Bulter, 1990). Riggs (2019) devised the term 'cisgenderist' which suggest European or Western societies often make the presumption that someone's gender should 'align' with

assigned gender at birth when they are separate entities. Davies (2021) adds 'cisgenderist' views support binary genders as a given 'truth', without acknowledging the intricacies or subjectivities of gender diversity, which is not shared internationally. For example, third-gender cultures exist including the Muxes amongst the Zapotec people in Mexico, and the Waria of Indonesia and the Hijra of India (Natural History Museum, n.d). In some instances, European or Westernised ideologies were imposed upon indigenous communities, attempting to diminish these identities alongside other traditions, yet acceptance of gender diverse identities within these communities often remain. These frameworks challenge essentialist views about gender, such as gender is both binary and static, instead proposing that gender exists on a continuum and can change and evolve over time (Butler, 1990). They also highlight how structural powers may be operating in certain societies. However, these approaches are often critiqued for having less empirical or theoretical understanding of identity development (Bilodeau & Renn, 2005).

In sum, gender identity development is complex with little empirical support. Though gender-diversity research has become increasingly popular in recent years, it often focuses on experiences of gender diverse individuals, often through a limited lens, and more research is required in almost all areas of gender diversity across the lifespan, especially longitudinal research into social transitioning and psychological well-being (Olson-Kennedy et al., 2013). There has been a hopeful shift in recent years from pathologising gender diversity to a more affirmative approach which challenges unhelpful binary discourses and aims to understand and affirm an individual's experienced identity (Hall, 2003). However, societal progression for gender diversity is far less developed in comparison to advances in the understanding of sexuality. For example, whilst homosexuality is no longer a classified mental health condition (or illegal) in Western societies, diagnoses in relation to distress associated with gender diversity remain (Di Ceglie, 2014).

1.2 Clinical Diagnoses and Associated Controversies

Gender diverse expression or preference alone is not the basis for assigning a diagnosis, as gender diverse identities are not indicative of mental disorder. Not all gender diverse individuals experience distress in relation to their gender identity, however, some individuals do experience clinically significant distress in relations to their gender identity. This is termed 'gender dysphoria' in the American Psychiatric Association's Diagnostic and Statistical Manual of Mental Disorders 5th edition (DSM-V, 2013). Gender dysphoria in adolescents and adults is described as "a marked incongruence between one's experienced or expressed gender and assigned gender" and "clinically significant distress or impairment in social, occupational or other

important areas of functioning", (APA, 2013, p 452). The International Classification of Diseases 11th Edition (ICD 11; 2019) recently changed their classification description to 'gender incongruence' for pre-pubertal children or in adolescents or adults. Gender incongruence is characterised by a significant desire to be a different gender to the one assigned at birth, a strong dislike or discomfort in relation to their primary or anticipated secondary sex characteristics, and that the incongruence must have been prevalent for over two years. With adolescents or adults, it may also include a desire to transition from the gender role associated with their sex assigned at birth, to their experienced gender.

Distress associated with being gender diverse is often transient and occurs more frequently at transitional phases in life (Di Ceglie, 2014). Once an individual's experience of distress reduces, diagnoses are no longer applicable. Gender diverse identities are now more widely recognised and accepted within a gender diverse spectrum rather than considered as a 'disorder' and are less pathologised (Suess Schwend et al., 2017). It is possible the main reason for retaining diagnostic classifications is it is currently essential in order to access specific medical interventions in the UK (Wiseman & Davidson, 2012). However, diagnosis is often a contentious subject, and there are frequent debates about whether systems should retain, reframe, or remove such diagnostic classifications (Beek et al., 2017).

1.3 Prevalence Data and Demographic Information

1.3.1 Prevalence Data

There is currently no reliable data for the number of people identifying as gender diverse in the UK as this information was not routinely collated until the most recent census (Stonewall, 2018). A recent estimate from the National LGBT Survey (Mordaunt, 2019) suggested approximately 1% of the population identify as gender diverse in the UK. Estimates of gender diverse youth in the UK are even less reliable. Estimates in New Zealand were 1.2% (Clark et al., 2014) and 1.4% in the United States. (University of California, 2022). The census from 2021 aims to provide a more reliable data when published.

In the most recent National LGBT survey in the UK for people over 16 years old (N=108, 000), 13% identified as 'trans' (Mordaunt, 2019). Two thirds of gender diverse respondents were aged between 16 and 35 years and this younger age group were more likely (57%) to identify as non-binary (i.e., had a gender identity that was neither exclusively male nor female) than older respondents over the age of 35 (36%). Younger respondents were also more likely to identify as 'trans men'. Similar proportions are reflected in referral figures to gender identity services where

the majority of referrals were assigned female at birth (69% in 2020-21; Gender Identity Development Service, 2021). Though data was not available for adolescents, the Trans20 longitudinal cohort study in Australia (N=559; 2019) for CYP under 18 years found 51% of participants identified as binary masculine, 20.9% binary feminine and 14% non-binary and 13.2% were unsure.

In terms of intersecting identities, Stonewall (2018) detailed 51% of respondents (n=871) had a disability, 9% were Black, Asian or from a minoritised ethnic group, 20% reported being gay or lesbian, 34% were bisexual, 13% were straight and 30% used another descriptor such as 'pansexual' or 'queer'. A quarter of gender diverse individuals have experienced homelessness at a point in their lifetime (Stonewall, 2018). This is important to consider in the context of the minority stress hypothesis, as identification with multiple minoritised characteristics exacerbates the likelihood of experiencing prejudice or abuse (Meyer, 1995).

Prevalence data for individuals diagnosed with 'gender dysphoria' has also been difficult to ascertain due to vast differences between diagnostic criteria. However, DSM-V (2013) reported 'male to female' gender dysphoria was between 5 and 14 per 1000 in adult males and 'female to male' gender dysphoria was between 2 and 3 per 1000 in adult females and these rates are reportedly increasing. This is different to recent data from the Gender Identity Development Service (GIDS) in the UK (2021) which suggests that two thirds of adolescent referrals presenting with gender-dysphoria are assigned female at birth.

Similarly to gender development, there is no singular causal link to explain why some individuals experience 'gender dysphoria' and others do not, as it is complex and multi-faceted in nature (Di Ceglie, 2014). Dissatisfaction about their natal body or physiology is reported to be the primary source of distress in some literature (e.g., Bandini, Fisher, & Castellini, 2013). Nonsupportive family environments may contribute to these difficulties which can then be exacerbated by social oppression and bullying, which significantly increase negative mental health outcomes (Greene, Britton, & Fitts, 2014; Rivers, 2004).

1.3.2 Autistic Spectrum Conditions

Autism spectrum conditions (ASC) and features associated with ASC are more prevalent in CYP who are referred to Gender Identity Development services in comparison to the general population (Holt, Skagerberg, & Dunsford, 2014). Individuals with ASC experience difficulties with social communication and interaction, and repetitive and restrictive behaviours (APA, 2017). Prevalence rates of ASC in the UK were estimated to be 1% in childhood in 2009 (Baron-

Cohen et al. 2009). Recent reports of school age children across countries within Great Britain with a diagnosis of ASC was 2.47% on average (Escher, 2020). One cross-sectional study of CYP with a diagnosis of gender dysphoria found 13.3% had a diagnosis of ASC in the UK (Holt, Skagerberg & Dunsford, 2014) in comparison to 7.8% in Holland (De Vries et al., 2010) and 26.3% in Finland (Kaltiala-Heino et al., 2015). More recently it was suggested 40-45% of gender diverse CYP in Europe and North America have co-occurring ASC and gender dysphoria (Kaltaiala-Heino et al. 2018). Though there is a wealth of evidence to suggest that ASC is overrepresented in gender diverse populations (National Autistic Society, NAS, 2022). As with gender identity development theories, there are a range of potential theoretical perspectives, which seek to understand the link between neurodiversity and gender diversity. Dr Wenn Lawson, an autistic advocate, researcher, and psychologist, said:

"The non-autistic world is governed by social and traditional expectations, but we may not notice these or fail to see them as important. This frees us up to connect more readily with our true gender." (Lawson, NAS website, 2022)

This perspective highlights the possible intersect between social and cognitive ideas and how neurodiverse individuals may not adhere to Western societal pressures which can be 'freeing'. Some suggest it may be a combination of biological (e.g., pre-natal testosterone may lead to a higher risk of co-occurring ASC and gender diversity), social perspectives (e.g., difficulties understanding relationships and bullying from one sex may lead to feeling of belonging to another) and a range of psychological factors (e.g., socio-cognitive explanations) which independently minimise the impact of alternative perspectives, yet together offer more holistic insight into potential origins from a bio-psycho-social perspective (Kaltaiala-Heino et al. 2018; Van Der Miesen, Hurley & De Vries 2016; Van der Miesen, De Vries, Steensma, Hartman, 2017).

The relationship between gender diversity and traits of ASC were explored in a clinical UK population (Russell, Pearson & Masic, 2020). Scores on the Social Responsiveness Scale 2nd edition (SRS-2; Constantino & Gruber, 2012) were considered to have a higher cut off for social impairment in comparison to CYP in the general population (Russell, Pearson & Masic, 2020). It also suggests social responsiveness scores remain fairly static over time for this group. However, an overall limitation to using ASC screening tools is a lack of publications in the UK exploring the psychometric properties of the SRS-2, thus UK norms cannot be assumed and should be interpreted with caution. Difficulties with peer relationships were reported to be the strongest predictor of emotional distress amongst adolescents with ASC experiencing 'gender dysphoria'

(Vries et al., 2015). Some authors suggest high scores are representative of gender-related distress rather than truly reflecting ASC (Skagerberg, Ceglie & Carmichael, 2015; Turban, 2018). This raises the question of whether high scores reflect aspects of psychosocial difficulties associated with minority stress in gender diverse youth or whether this was indicative of organic traits of ASC.

In sum, whilst not all individuals who are gender diverse experience social communication difficulties, findings continually suggest prevalence rates for ASC are disproportionate in this population. Whilst standardised social communication measures are not yet validated on gender diverse populations, high scores indicate a high level of need, nonetheless. Therefore, it is clinically relevant to consider this in future research involving gender diverse youth.

1.4 Gender Identity: Current Understanding

1.4.1 Psychological Factors Associated with Emotional Well-being in Gender Diversity

Gender diverse CYP can often face a number of challenges in addition to the usual stressors of adolescence. These could include the strain of living in a body which is incongruent to their identity, considering socially transitioning, as well as potentially negotiating complex decisions regarding physical aspects of gender transition. Whilst questioning conventional societal gender expectations has led to increased opportunities of freedom and liberation, it can also be exposing (Olson-Kennedy et al., 2015; Jenzen, 2017). Psychosocial strengths and vulnerabilities can determine whether exploring or expressing their gender identity during adolescence is met with greater ease or distress.

Positive Psychological Aspects of Gender Diversity. Whilst the evidence-base tends to focus on psychological distress in this population, it is important to highlight the many positive psychological aspects of gender diversity which are linked to well-being. Positive self-identity has been strongly associated with psychological well-being across LGBTQ+ populations in English speaking countries (e.g., Russel & Pollit, 2012) and replicated in Spanish speaking countries (Almario, Riggle & Rotosky, 2013). Qualitative thematic analysis found common self-reported themes of enhanced feelings of self-awareness, sense of self, authenticity, sense of belonging within a community, being a role model for others, and involvement in activism for social change. Many relational benefits were also reported by respondents, who shared they had strong connections with peers and family and held great empathy and compassion for others, especially in the context of social injustice. Across both samples there was a sense of freedom or flexibility from socially prescribed gender roles which was liberating.

Another qualitative analysis found gender diverse individuals found congruency of their sense of self, enhanced interpersonal relationships, personal growth, empathy, advantages from living beyond the sex binary and a sense of connection to the LGBTQ+ community (Riggle et al., 2011). Common themes were found across nationalities, minoritised sexual identities, and positive gender identities, suggesting consistent links between gender identity and emotional well-being. This suggests positive psychological approaches could be beneficial for this population to enhance well-being in the population.

Psychosocial Vulnerabilities. Gender diverse individuals are more vulnerable to experiencing co-occurring mental health conditions in comparison to other social groups (Grossman & D'Augelli, 2006). Gender diverse and sexual minority CYP are more likely to experience suicidal thoughts or attempts, self-harm, depression, and substance misuse (Testa, Jimenez & Rankin, 2014; Liu & Mustanski, 2012; Ryan, Huebner, Diaz, & Sanchez, 2009). One survey (*N*=218) found 42% of respondents experienced low mood or depression, 39% self-harmed and 47% reported experiences of bullying (Holt, Skagerberg & Dunsford, 2014). However, figures were based on referral screening information, rather than a comprehensive assessment of difficulties, so may be an underestimation of prevalence. It is also not representative of individuals who do not access support services who may be coping well or who may not want to access support due to fear of stigma. The Trans Mental Health online survey (McNeil et al., 2012) reported 88% of gender diverse adults described symptoms of depression, 75% of anxiety, 50% had self-harmed and 84% reported suicidal ideation (McNeil et al., 2012). This may be a more accurate reflection of prevalence rates in the wider gender diverse population, as participants were able to preserve anonymity.

Gender diverse CYP experiencing distress in relation to their gender identity can be referred to NHS funded Gender Identity Clinics for further support. Gender diverse young people who experience mental health difficulties which are not related to their gender identity are referred to Child and Adolescent Mental Health Services (CAMHS). Anxiety and depression are the most frequently occurring mental health presentations among referrals for gender diverse young people to clinical settings (Kaltiala-Heino et al., 2018). Anecdotal evidence from young people accessing gender services suggests that CYP may find difficulties conceptualising their experiences of gender which can lead to gender-related distress (Canvin, Hawthorne & Panting, 2022). For others, the social context of uncertainty may be more distressing. This includes distress associated with 'passing' in the eyes of others, wondering whether healthcare systems will allow them to access treatment, or if they will be safe in the country that they live in. One

study suggested gender diverse CYP appear to present with the same level of mental health needs as cisgender adolescents referred to mental health services (de Vries, 2015). However, information from community samples suggest gender diverse CYP present between four and six times more frequently with depression, between three and four times more with self-harm or suicidality in comparison to cisgender adolescents (Connolly et al., 2016; Clark et al., 2014). Discrepancies between levels of distress between cisgender and gender diverse young people in the community may be associated with long waiting times to access specialist support services, which can further perpetuate distress caused by uncertainty.

1.4.2 Minority Stress Model

The Minority Stress Model (MSM; Meyer, 2003) is the front running theory for understanding distress in LGBTQ+ communities. The model offers an explanation for the high prevalence of mental health conditions for this group. Meyer (2003) outlined three key processes which contributed to minority stress. Firstly, environmental events such as abuse, which are observable and easily verified. Secondly, the anticipation that these events will occur (e.g., abuse or rejection), which can result in hypervigilance or avoidance in order to keep safe or hidden from both real and perceived threats. Thirdly, internalisation of societal prejudices and negative attitudes which is the most proximal factor. Though this is less observable, it can be potentially more damaging and often relates to how CYP are able to cope in the face of adversity (Hendricks & Testa, 2012).

The MSM theoretically proposes that individuals who do not conform to societal expectations are subjected to increased levels of stigma and discrimination, which can often be associated with poorer mental and physical health outcomes, poor coping, and lack of community support (Hatzenbuehler, 2009). These experiences may heighten any pre-disposition to shame (complex and painful negative self-appraisal and perceived appraisal from others) and self-criticism (responding to oneself in a critical way). Whilst longitudinal research is sparse in this group, one study reported that psychological distress reduced across adolescence to early adulthood in LGBTQ+ youth (Birkett et al., 2015). Early experiences of victimisation predicted greater levels of distress, which is consistent with the minority stress model. This demonstrates that without support and appropriate healthcare, gender diverse CYP are likely to experience psychological distress into adulthood. However, gender diverse individuals often report higher levels of stigmatisation in comparison to LGB youth.

1.4.3 Application of the Minority Stress Model to Gender Diverse Youth

The Gender Minority Stress Model (GMSM; Hendricks & Testa, 2012) is an adaptation of the Minority Stress Model (Meyer, 2003) which aims to conceptualise the unique experiences of gender diverse individuals and understand their vulnerabilities and strengths in the context of the life experiences they may be exposed to.

Kozlowska et al. (2021) indicated that gender diverse youth were more likely to have experienced early developmental or relational trauma. A number of needs-based studies with gender diverse adults in community samples found between 43% to 60% had experienced physical violence, and between 43% to 46% had experienced sexual violence (Clements-Nolle, Marx & Katz, 2006; Kenagy & Bostwick, 2005; Lombardi, Wilchins, Priesing & Malouf, 2001; Xavier, Bobbin, Singer & Budd, 2005). Gender diverse CYP, who were subjected to gender-based victimisation, were four times more likely to attempt suicide (Goldblum, Testa, Pflum, Hendricks, Bradford & Bongar, 2012). A significant relationship between alcohol, substance use, and experiences of abuse were also found.

Stonewall charity (2017) completed a large survey involving LGBTQ+ CYP (*N*=3700) which highlighted minority stresses in education settings. This found 33% of gender diverse pupils were not known by their preferred name, 44% said their teachers were not familiar with the term 'trans,' and 58% could not use the toilets they felt comfortable using. Respondents reported 85% had self-harmed with 45% reporting attempting suicide previously which concurs with Goldblum et al's (2012) findings. No causal relationships have been established between LGBTQ+ and health outcomes, yet disproportionate rates are often linked with lack of opportunities to talk about their sexuality or identity in a safe space or by targeted abuse such as transphobia (Stonewall, 2017). Discrimination often extends to employment settings (Beemyn & Rankin, 2011). In one survey, approximately 25% of respondents were refused a job with 13% reporting they had been dismissed in relation to their gender status and a quarter of respondents had been made homeless at some stage in their life (Xavier, Honnold & Bradford, 2007).

Of note, needs based surveys using community sampling methods often disproportionally reach populations with intersecting vulnerabilities who may face multi-level systemic oppression (Hendricks & Testa, 2012). Though figures may be inflated, it is important to highlight the needs of the most vulnerable.

1.4.3 Proximal Minority Stress

As with LGB communities, it is often the more proximal stressors such as expectation of violence and internalised transphobia, that have the greatest impact on gender diverse populations (Hendricks & Testa, 2012). It is well documented, often in the context of the minority stress model, CYP are more likely to internalise negative experiences. This can lead to feelings of shame and self-criticism which manifest in a desire to withdraw from society which perpetuates feelings of isolation (Greene & Britton, 2015). Research is more limited in this area, as proximal factors are less observed and less reported. It is perhaps most telling, that over half of respondents in one survey said they concealed their gender identity in fear of intimidation (Beemyn & Rankin, 2011).

The literature supporting GMSM does not necessarily demonstrate a causal link between distal, proximal stressors and psychological outcomes for gender diverse youth. However, when abuse and oppression is prevalent on an individual, relational, organisational and social-political level, it is no surprise that levels of psychological distress are elevated in this population. This supports the application of the MSM to gender diverse populations.

1.5 A Context of Uncertainty: Current Socio-Political Climate and Structural Inequalities

The socio-political climate has become increasingly polarised in recent years. A number of events have had a significant impact on the community in recent years, compounding the context of uncertainty for gender diverse youth. These include the UK government's decision on the exclusion of gender diverse individuals from the ban on conversion therapy despite this population being most exposed to this practice (Patel, 2022; Mordaunt, 2018). 'Conversion therapies' are approaches which aim to change someone's gender identity or sexual orientation (Mordaunt, 2018). Approaches include pseudo-psychological treatments, spiritual counselling and in some extreme cases surgical or hormonal interventions or so-called 'corrective' sexual interventions. The National LGBT Survey (2018) found that gender diverse respondents were far more likely to have been offered or undergone conversion therapy (13%) than cisgender respondents (7%). There has been a 37% increase in transphobic hate crime (Stonewall, 2018) as well as continuous threats to equality, including questioning whether gender diverse people can use single sex spaces which puts gender diverse people at risk of harm. All of which have increased the context of uncertainty for gender diverse youth.

In addition, the COVID-19 pandemic caused global risk to people's physical and mental health (WHO, 2022b). It has been linked with increased psychological distress, especially for

young people (Fancourt et al., 2020). The pandemic was not experienced equally across communities, with those with marginalised characteristics such as gender diversity, experiencing structural inequalities (Bowleg, 2020). Gender diverse young people were found to be especially vulnerable to pandemic related mental health outcomes (Jones et al., 2021). Those who were unable to access healthcare and lived in non-affirming homes experienced poorer mental health outcomes. Social distancing measures, lack of social support and difficult interpersonal interactions were also key determinants. Findings provide a clear rationale for services, to provide accessible support, whereby young people can be supported in a safe and confidential space.

This review has highlighted the uncertainty and hostility gender diverse CYP often face when living in the UK. Tolerating distress arising from uncertainty is particularly relevant to this population. Those wishing to access medical treatment in particular (e.g., cross-sex hormones or surgical interventions), are likely to experience long wating times, often several years. Others may seek greater certainty or avoid uncertain situations altogether. It is therefore understandable when faced with this uncertainty, compounded by the invalidation of the current social-political climate, that levels of distress may be elevated, as individuals learn to cope in different ways.

1.6 Coping in Gender Diverse Populations

1.6.1 Coping in Gender Diverse Youth

Coping can broadly be understood as actions to overcome stressors or events which can result in positive or negative consequences (Lazarus, 1991). Coping theory (Lazarus & Folkman, 1984) is underpinned by the idea that changing external and internal stimuli drive cognitive and behavioural responses to these cues in order to seek or deplete resources. They suggest that the relationship with the self is linked to coping responses, thus those who are warm and compassionate to themselves might cope in a way that seeks resources to enhance well-being, and those who may be self-critical, or experience high levels of shame may engage in coping which could be detrimental to well-being.

One grounded theory study explored coping in gender diverse adolescents (*N*=20; Budge et al., 2018). Six emergent themes were identified which included 'negotiating gender' (e.g., considering or conforming to societal expectations), 'avoidance' (e.g., communication, emotion, expressing gender, self-preservation), 'emotional relief' (e.g., expressing affect, self-injury), 'personal solace' (e.g., enjoyable activities or introspection which was defined as noticing what

was happening in the present moment), 'support' (e.g., from peers, family, clinicians, LGBTQ+ community), and 'active engagement' (e.g., problem solving or asserting oneself). 'Negotiating gender', 'avoidance' and 'emotional relief' were found to emerge in the earlier stages of identity development and facilitated the latter three coping modalities. 'Personal solace', 'seeking support', and 'active engagement' were more individualised, centering around the person's interests. Whilst support of others was a protective factor, it was largely reliant on external factors such as available support. 'Active engagement' was the final stage in the model. This generally occurred once the complexities of exploring and expressing their gender identity and managing the expectations of others and had been navigated. However, respondents were predominantly white and from middle to high income households, and such privileges likely correlate with access to resources to draw on in order to cope. Thus, this study provided limited insight into how intersectional experiences, such as ethnicity, impacted on coping.

One study found that CYP with a diagnosis of gender dysphoria tended to internalise their problems, which manifested as symptoms of anxiety or depression, rather than presenting externalised presentations such as aggression or defiance towards others (De Vries et al., 2010). More recently, common themes of coping with distress were drawn from observations from clinicians working at GIDS (Canvin et al., 2022). Coping themes included 'safety seeking behaviours' which can be effective in reducing immediate distress but may amplify distress in the longer term. These ways of coping often aim to reduce ambiguity of their gender expression in a context of uncertainty in order to avoid judgment or criticism from others or even their own self-criticism. For gender diverse young people, seeking safety is often imperative, given the bullying or discrimination they may face which was experienced by 58% of CYP (*N*=2,168) in relation to their appearance (Gower et al., 2018). For example, some CYP frequently checked their appearance and made critical comparisons to others (Canvin et al., 2022). This can heighten sensitivity and perpetuate distress.

Avoidance was also a found to be a common coping mechanism (Canvin et al., 2022). Common patterns of avoidance included withdrawing socially, which was driven by protecting themselves from real or imagined criticism from peers, or from being either misgendered or identified as gender diverse in an unsafe environment (Canvin et al., 2022). Though protective in some situations, it can perpetuate and exacerbate anxiety in social situations (Heimberg, 2002). Increased isolation has strong associations with experiences of depression, as it limits opportunities to connect and engage in meaningful activities (Veale et al., 2008). Distress was also linked to CYP's relationships with sexed parts of the body (e.g., genitalia), and some individuals avoided mirrors, showered in the dark, and avoided physical or sensory interactions

which included washing, exercising, or masturbating for adolescents (Canvin et al., 2022). Avoiding interacting with the body limits opportunities for enjoyable experiences of the body and can lead to detachment over time.

Whilst safety seeking, and avoidance were observed to commonly occur with gender diverse CYP accessing GIDS, these experiences may not be representative of all gender diverse CYP. There were commonalities with Budge et al's., (2018) earlier study suggesting consistencies between groups. However, themes were not empirically validated and should be interpreted with caution.

1.6.2 Protective Coping and Resilience Factors in Minoritised Groups

As Meyer (2003) highlighted, positive coping and resilience are often driven by adverse circumstances. Solidarity and connection within minoritised groups can be a protective resource and buffer against distress. Instead of making comparisons to groups where prejudices often originate (e.g., white, cisgender, heterosexual, middle class etc.), group members can explore similarities and difference within the safety of the group, which is then met with validation (Perrin et al., 2019)

One early study explored how trans women (*N*=20) who were African American, and Latina built support networks in a community healthcare setting (Pinto, Melendez & Spector, 2008). Developing trans-specific social support networks and 'in-group identification' was found to be the key component in developing positive coping strategies. Singh and McKleroy (2011) also completed a phenomenological investigation into coping with trauma with gender diverse individuals who were from minoritised ethnic backgrounds. Common themes emerged including 'pride in one's gender and ethnic identity', 'connecting with the community' and associated activism for gender diverse people of colour, and 'cultivating hope and spirituality'. Themes were underpinned by concepts of Meyer's minority stress hypothesis, for example, in order to take pride in one's identity, individuals reported they had to overcome transphobia and racism. Centring the voices of African American and Latina voices was important to the researcher as individuals from minoritised ethnicities are aften underreported in the literature. However, as participants were all from the same clinic, they likely belonged to the same social networks, therefore may not be representative of the values and political perspectives across different communities.

One online survey (Jones & Hillier, 2013) evidenced how gender diverse youth were better able to reframe experiences of social rejection of their identities in comparison to cisgender

peers. Individuals utilised activism and self-affirmation in response to social adversity and held a sense of optimism and purpose having positively impacted on their future. The underlying theoretical mechanisms of this are yet to be explored.

The literature thus far, demonstrates that gender diverse populations are often exposed to discrimination and violations of human rights, from individual perpetrators to wider systems in society. It is therefore unsurprising that the evidence base largely focuses on social injustice and psychological vulnerabilities in this group (Divan et al., 2016). The MSM and GMSM have helped to delineate pathways in which the processes of minority stress contribute to disproportionate prevalence of psychological difficulties. Rather than pathologising gender diversity, these models consider how the impact of minority stress (rather than gender diversity itself) elevates potential for distress, as well as cultivates strength and protective factors which could help to buffer against the impact of stressors.

In the face of adversity and uncertainty, some gender diverse individuals internalise distress, or avoid situations, in order to cope. Though these strategies can be protective to an extent, they can also perpetuate experiences of distress. There is also a higher prevalence of alcohol misuse, self-harm and suicidal ideation (Goldblum, Testa, Pflum, Hendricks, Bradford & Bongar, 2012), which are more harmful ways of coping at the height of distress. Some CYP are more able to seek access to external resources (e.g., family or peer support) or draw on internal resources, such as assertiveness and self-preservation. The ways individuals appraise and respond to adversity can influence psychological well-being (Lazarus & Folkman, 1984). Exploring particular traits which could intrinsically drive protective coping or resilience, and are less reliant on external factors where scope for change may be more limited, could be especially beneficial for gender diverse youth. Careful consideration of specific resilience factors in the context of uncertainty and minority stress could maximise effectiveness of therapeutic support and better establish potential mechanisms of change (Marsh, Chan & McBeth, 2017).

1.7 Current Landscape of Support Services

1.7.1 Therapeutic Support: Ethical Considerations

Not everyone who experiences a gender identity that is different to their birth-assigned gender desires or goes on to access therapeutic support, however, for others this can be a lifeline. As a result of historical pathologising of gender diverse identities, there is some contention around developing therapeutic models or 'interventions' with this population (Sennot, 2010;

Canvin et al, 2022). This is understandable given debates surrounding 'conversion therapy' currently (Turban et al., 2020; D'Angelo et al. 2021). There are crucial ethical distinctions between therapeutic practices which intend to pathologise a person's gender identity and seek to change this, and therapeutic work which aims to support individuals to manage distress associated with their gender identity in order to promote well-being. Canvin et al. (2022) make the distinction between therapeutic models which provide support to manage distress, rather than treating gender 'incongruence' which is not viewed as ethical for therapeutic work. It is however ethically necessary to provide therapeutic support to this population, aiming to reduce any distress which may arise in conjunction to their gender identity or otherwise. Thus, therapists may prefer to use the term 'gender-related distress' as opposed to 'gender dysphoria' when discussing treatment approaches to acknowledge this distinction.

Existing therapeutic support for gender diverse CYP can be grouped into two modalities, namely 'affirmative' therapies and 'explorative' therapies (Canvin et al. 2022). 'Explorative' therapies (e.g., Evans & Evans, 2021) approach the meaning of identifying as gender diverse with curiosity, which may result in a shift in identity for the individual if they choose. 'Affirmative therapies' (e.g., Austin et al., 2018; Joseph et al., 2020) focus on supporting young people to cope with difficulties associated with minority stress, whilst accepting the limitations in alleviating distress cause by wider systemic issues which might not be improved by therapeutic support. Some approaches combine the two (e.g., Canvin et al., 2022), whereby the approach aims to accept and affirm the individuals' experienced gender identity, in the context of adopting a position of curiosity in understanding and coping with gender related distress. There are many other models of therapy, (e.g., developmental, systemic, trauma-focused) which aim to respect and value the infinite number of understandings an individual could hold about themselves, others and the world around them (British Psychological Society Letter, BPS, 2020). BPS guidelines for working with gender diversity (BPS, 2019) are currently being reviewed in light of the judicial review, which was wholly overturned, however it is proposed that psychologists should formulate the nature of distress with gender diverse youth with curiosity, rather than ascribing to a solely affirmative stance, so as not to limit exploration of the origin of distress in line with ethical practice (BPS letter, 2020).

Those who do seek therapy for their mental health often do so to discuss difficulties which are not related to their gender identity, however, therapy with gender minorities is often perceived as a specialist area. Research suggests professionals in many areas of clinical practice feel underconfident or deskilled when working with gender diversity (Canvin et al., 2022). However, there is an increasing amount of guidance for practitioners to enhance their competencies when working with gender diverse youth which is being updated considering new

evidence (BPS, 2020). Whilst it is recognised that staff's expertise have greatly advanced over the years to accommodate the developing needs of gender diverse youth, this knowledge is not always recorded within the literature. This is required to provide NHS healthcare services and community services with the necessary evidence to base their therapeutic interventions in routine care for this population (e.g., via National Institute for Healthcare and Excellence; NICE Guidelines). This is an area where research is greatly needed. Sharing the effectiveness of compassion focused modalities which are routinely used to support CYP with distress arising from long term condition's (LTC) or eating disorders (Sirois & Rowse, 2016; Braun, Park & Gorin, 2016), where high levels of stigma, shame, and uncertainty are also more prevalent, could generate hope for therapeutic changes without invalidating or challenging aspects of living with the uncertain trajectories of their condition. Though gender diversity and health conditions are fundamentally different in many ways, further research into protective coping styles and what characteristics may underpin coping are also required. This will support better understanding of how to support gender diverse youth in future as they may also experience shame and uncertain trajectories associated with exploring and expressing their gender identity. Better understanding about the ways in which CYP cope are particularly helpful in shaping therapeutic support pathways, as well as wider service pathways within the NHS and community to support gender diverse youth.

1.7.2 Gender Identity Development Service

GIDS at the Tavistock and Portman NHS trust, was established in 1989 and provides highly specialised care for CYP, and their families, who experience difficulties associated with their gender identity development across Great Britain (GIDS, 2021). There are currently NHS Gender Identity Clinics for young people in London and Leeds, and several satellite clinics to meet local need. Referral rates have rapidly increased from four referrals in 1989 (Di Ceglie, 2014) to 2728 referrals between 2019 and 2020 (GIDS 2020). Similar trajectories occurred in Europe and North America (Aitken et al., 2015; Tollit et al., 2019). Some theorise 'coming out' out might be easier due to greater societal knowledge and acceptance in society (Kaltiala-Heino, Bergman, Työläjärvi & Frisen, 2018). Increased service availability, alongside advances in medical and therapeutic support may also be incentivising.

The service provides a multidisciplinary psychosocial assessment over three to six sessions in order to understand the individuals' past and current gender identification in the context of their life experiences (GIDS, 2021). Key aims include exploring the development of gender identity with a view to improve psychological well-being, reduce gender-related distress, and

provide support if there are any associated difficulties with relationships. Following the assessment, individually tailored support by clinical and counselling psychologists, systemic and family therapists, social workers and psychotherapists is offered. Some individuals may pursue physical interventions and may be referred to paediatric endocrinologists and clinical nurse specialists to explore hormonal and medical treatment. Individuals who do experience difficulties in relation to their gender identity may wish to access further psychological support. GIDS do not currently provide weekly psychological therapy as part of its core work with most therapeutic support being provided by CAMHS (Canvin, et al., 2022).

1.7.3 Medical Support

Many individuals do not experience distress in relation to their gender identity and may only seek professional support to develop a body that is congruent to their gender identity. For young people, such treatment may include pubertal suppression by means of Gonadotropin-releasing hormone analogues (GnRHa), which temporarily pause physical development related to puberty (Russell, Pearson & Masic, 2020). The clinical rationale for the use for GnRHa, which is increasingly internationally accepted, is that this reduces distress relating to pubertal bodily changes whilst allowing more time to explore their gender identity (Coleman et al. 2012; Hembree, 2011).

Individuals may wish to pursue further medical intervention. This involves a number of consultations with an endocrinologist before they are able to decide if they want to commence cross-sex hormone treatment (Shaw et al., 2012). For some, medical intervention is viewed as the only gateway to reduced distress, whereas others do not seek or desire to access physical interventions at all (Hendricks & Testa, 2012).

A recent judicial review (Bell v Tavistock, 2020) was concerned with the legal requirements for obtaining valid consent in order to carry out medical treatment in relation to puberty blockers. The court ruled that it was highly unlikely any child aged 13 or under would be able to consent to treatment and doubtful for 14 or 15-year-olds. Understandably, the ruling had far-reaching consequences for CYP seeking or receiving treatment. Organisations reported elevated levels of distress and uncertainty for a population who are already predisposed to psychosocial vulnerabilities (E.g., Mermaids, 2020; GIDS, 2021). Several organisations including NHS Trusts appealed this decision on grounds that the judgement is inconsistent with the judgment of the house of Lords in *Gillick v West Norfolk and Wisbech Health Authority* (1986). This was overturned in December 2021 (*Bell and another v The Tavistock and Portman NHS Foundation Trust and*

others, 2021), reinstating the test of Gillick Competence, though anxieties surrounding the uncertainty of healthcare in this area remain.

1.7.4 The Cass Review

The Cass review recently aimed to independently review the gender identity services for CYP in order to address any challenges and retain provisions that are of most value. An interim review report detailed the provisional outcome which was submitted to NHS England (2022). In summary, it highlights the changing landscape of increased referrals to GIDS and highlighted that the current model of care within a single provider is not sustainable long term. The report emphasised that gender diverse CYP deserve the same standard of care as those accessing other health care provisions which they are not currently in receipt of. Dr Cass directly addresses CYP in a letter to reassure them services and treatment will not be stopped or reduced. Interim recommendations include, development of regional centres, improved access to training for health care professionals, and a call for a consistent clinical approach which prioritises consent of CYP across geographical areas.

1.7.5 Community Services

Community organisations play a crucial role in supporting gender diverse CYP and their supporting networks to explore, understand and express their gender identity. Qualitative research suggested community support services were viewed as a safe space for CYP to come together and explore their gender identity outside of clinical settings in order to feel validated and understood by peers and support workers (Boddington, 2016). These services may reduce loneliness and isolation, support families and carers to liaise with services (e.g., education providers), help individuals cope with distress, improve emotional well-being, and improve societal awareness (Mermaids, 2021).

In conclusion, drawing on support from clinical and community services or online communities can help gender diverse CYP cope with their experiences whilst exploring or expressing their gender identity. They also support individuals to pursue their potential goal to transition with medical treatment. This could be especially helpful given the amount of uncertainty and adversity this population may face as a result of minority stress or otherwise. This support in turn, promotes mental health and reduces suicidality (Trujillo et al., 2017) as well as provide forums for expression of activism and to educate wider society. However, the current demand on services outweigh capacity which has led to increased waiting times and scrutiny on specialist services providing psychological support especially from the media. It is important to

remember the wider social-political context surrounding gender diversity which highlights the challenging reality for CYP. Much of the distress experienced may be as a direct result of stressors from long waiting times to access services in the context of transphobia and structural inequalities, which in turn intensifies gender related distress. Ideally, these systemic issues should be addressed first and foremost, though change at this level can be slow. In the interim, gaining a broader understanding of distress for gender diverse CYP and how they cope could help individualise approaches to therapeutic support (Canvin et al., 2022). Positive psychological approaches, such as compassion focussed approaches have been beneficial with young people who experience uncertainty or high levels of shame (e.g., living with a health condition, or eating disorders; Sirois & Rowse, 2016; Braun, Park & Gorin, 2016), and therefore could have helpful applications to gender diverse youth.

1.8 New Directions: Positive Psychological Traits and Approaches

1.8.1 Gender Diversity and Positive Psychological Factors

More recently there has been a shift in focussing on how to prevent or alleviate minority distress and exploring individual factors such as being self-compassionate, which could help reduce experiences of shame or self-criticism and develop coping skills in this population (Grossman, D'Augelli & Frank, 2011; Holt, Skagerberg & Dunsford, 2014). Health researchers and supporting professionals have been working with smaller spheres of influence, to promote positive change at an individual level, as well as utilising community-based approaches. Focusing on the presence of positive attributes in the face of adversity could be of equal, if not greater, importance to gender diversity research.

1.9 Self-compassion

Self-compassion is a psychological concept originating from Buddhist philosophy and involves treating oneself with kindness, as opposed to criticism. The most commonly cited model of self-compassion is proposed by Neff (2003a) suggesting self-compassion is multi-dimensional with discrete but inter-related spectra (Neff, 2016). Neff describes three positive poles as 'self-kindness' (responding to ones' suffering in a non-judgemental way), 'common humanity' (recognising negative events are common to humankind), and 'mindfulness' (taking a balanced and thoughtful view of ones' difficulties). These three positive poles are in direct contrast to negative poles as 'critical self-judgement' (responding to oneself in a critical way), 'isolation' (viewing experiences as isolating) and 'over-identification' (over-identifying with or ruminating about painful feelings). Neff's (2003a) conceptualisation and subsequent development of the self-

compassion scale (SCS; Neff, 2003b) has allowed increased research into the aforementioned constructs associated with self-compassion. The literature review demonstrated that gender diverse CYP are much more likely to internalise negative experiences, which can lead to feelings of shame, self-criticism and isolation (Greene & Britton, 2015; Hatzenbuehler, 2009). Less however is known about the prevalence of self-compassion in gender diverse populations.

Gilbert's (2005; 2009) three systems model explains self-compassion in evolutionary terms and considers neuropsychological and physiological relationships between psychological states and emotional well-being. He proposed an interface between three affect regulatory systems which have a threat, motivational or soothing focus and have evolved over time. Gilbert's model opposes Neff's dimensional conceptualisation as it proposes the soothing or 'compassion system' is independent of the threatening or 'critical system' and thus should be measured separately rather than on a continuum (Gilbert, 2014). Despite some key differences, both models suggest self-compassion is characterised by kindness and empathy towards oneself. Attachment theory often underpins self-compassion models, suggesting if relational security, kindness, and empathy is provided from a caregiver this is internalised (Bowlby, 1973; Gilbert, 2009; Neff & McGehee, 2010). Attachment models predict that experiences of acceptance in childhood can cultivate the development of self-compassion as we learn from others how to treat ourselves (Gilbert, 2009).

It is well documented that self-compassion is associated with reduced distress as it can be influential in transforming negative thoughts or uncomfortable emotions such as anxiety or low mood into self-acceptance, thus reducing experiences of psychological distress (Neff, Rude & Kirkpatrick, 2007a). Neff, Rude and Kirkpatrick's (2007a) study found self-compassion was highly correlated with positive health constructs, such as optimism and happiness, which are linked to psychological well-being. Experiences of happiness may be underpinned by (or cultivate) feelings of emotional warmth, connections with others and a balanced outlook which individuals with greater self-compassion experience.

Some research suggests a contented mindset is associated with self-compassion, which results in adaptive coping skills and reduced distress and experiences of shame (Neff, 2005). From this mindset, individuals may be able better able to engender an optimistic outlook for their future (Scheier et al., 1994). Furthermore, higher levels of activity in the left prefrontal cortex, which is closely linked with happiness and optimism, has been observed in individuals who are more compassionate to themselves and others (Lutz, Greischar, Rawlings, Ricard & Davidson, 2004; Neff et al., 2007b). These findings suggest it is the capacity to tolerate negative emotions in

the context of a non-judgemental awareness, as opposed to dismissal or avoidance, which results in lower levels of distress. As a result, there has been a growing interest into researching compassion focused therapy in recent years alongside other 'third wave' cognitive behavioural therapies (CBT) such as Compassion Focused Therapy (CFT; Gilbert, 2009), Acceptance and Commitment Therapy (ACT; Hayes, Strosahl & Wilson, 1999), Dialectical Behaviour Therapy (DBT; Linehan & Teasdale, 2002) and Mindfulness Based Cognitive Therapy (MBCT; Segal, Williams & Teasdale, 2002). Third wave modalities place greater emphasis on positive psychological principles such as becoming mindfully attuned to the present moment, acceptance and human connection. As self-compassion is the key antidote of shame and self-criticism, which is known to be high in this group due to high levels of bullying and transphobia (Hendricks & Testa, 2012; Stonewall, 2017), this could be a relevant construct to explore in this group.

1.9.1 Application of Self-compassion in Community and Clinical Populations

Higher levels of self-compassion have consistently been associated with reduced psychological distress in non-clinical samples of adults (Neff et al., 2008) and CYP (CYP; Neff & McGehee, 2010; Xavier et al., 2016; Bluth et al., 2016). The predictive role of self-compassion on sense of community was explored in an adolescent sample in Turkey (Akin & Akin, 2014). Self-kindness, common humanity and mindfulness predicted 17% of the variance on young people's sense of community. This could be of particular benefit to minoritised communities, such as gender diverse youth, who experience societal discrimination. One meta-analysis of 19 studies (N=7049) found a large effect size (r = - 0.55; 95% CI - 0.61 to - 0.47) when exploring associations between self-compassion and psychological distress which were inversely related in adolescents (Marsh, Chan & McBeth, 2017). Though studies were heterogeneous, correcting for publication bias did not impact on the effect.

The reported benefits of self-compassion in reducing psychological distress also extend to various clinical groups, such as individuals with long term health conditions (Sirois & Rowse, 2016; Neff, 2020). Therapeutic change is proposed to occur as a result of moderating an individual's relationship with the perceived problem, as such, adopting a compassionate or non-judgemental stance when faced with adversity alleviates distress and promotes well-being. Self-compassion was found to significantly mediate the effects of mindfulness-based interventions which could suggest self-compassion as an underlying mechanism for change across other approaches (Kuyken et al., 2010).

1.9.2 Self-Compassion and Gender

A meta-analysis suggested 'gender norms' hinder the development of self-compassion and females are consistently reported to have lower rates of self-compassion than males in cisgender populations (Yarnell et al., 2015). Research generally suggests that cisgender women are more self-critical (Cheng & Furnham, 2004), have lower mindfulness traits (Gilbert & Waltz, 2010) and are more likely to internalise negative events (Johnson & Whisman, 2013) than cisgender-males. Those who reported higher affinity to societal gender roles (i.e., femininity or masculinity) had stronger associations with self-compassion than gender alone, which suggests socialisation plays an important role in levels of self-compassion (Yarnell, Neff, Davidson & Mullarkey, 2018). This finding may be of relevance when considering rates of self-compassion in non-binary young people who have lower affinity to binary societal gender roles, which could be helpful to explore further. Self-compassion and age were also positively associated with emotional well-being (e.g., life satisfaction, distress intolerance, perceived stress) with older adolescent males reporting lower symptoms of anxiety and depression in comparison to younger females (Bluth et al., 2016). Thus, there is a strong rationale to intervene early to cultivate self-compassion, particularly for younger adolescent females (Bluth et al., 2016). Further research is required to explore the development of self-compassion in gender diverse young people.

1.9.3 Self-compassion in LGBTQ+ Communities

Thus far self-compassion and gender research have largely been limited to cisgender samples. However, there is a growing body of literature which positively associates self-compassion with outcomes such as identity development, life satisfaction, and psychological resilience in LGBTQ+communities (Jennings & Tan, 2014). Self-compassion was found to reduce distress in gay men, whereas those who reported isolating experiences felt greater distress (Beard, Eames & Withers, 2016). Situational forgiveness was closely associated with reduced levels of shame and predicted increased levels of self-esteem in a large adult LGBTQ+ sample (*N*= 657; 15% of sample identified as transgender; Greene & Britton, 2013). Self-compassion was found to predict levels of happiness in an LGBTQ+ sample and mediated the relationship between childhood affirmation and subjective happiness in adulthood (Greene & Britton, 2015). Cultivating self-compassion in childhood nurtured a sense of connectedness, understanding, and comfort, which supported gender diverse groups cope with emotional challenges as well as facilitating happiness in adulthood.

1.9.4 Self-compassion in Gender Diverse Populations

Self-compassion has more recently been explored as a protective trait in gender diverse populations. A small number of studies explored potential relationships between self-compassion and other relevant protective factors, such as mindfulness, perceived family support, and mental health constructs (e.g., emotional distress). Keng and Liew (2016) found gender diversity significantly predicted symptoms of psychological distress (i.e., symptoms of anxiety, depression, and subjective well-being) in an adult Singaporean population (*N*=206). Naturally occurring trait self-compassion significantly moderated the association between gender diversity and subjective well-being, but not symptoms of depression or anxiety. Trait mindfulness moderated the relationship between gender diversity and all three psychological health factors, though measures used in this study were not formally validated and the cross-sectional nature limit causal conclusions of moderator variables.

In another doctoral study, self-compassion and outness (the degree to which the individual was open to others about their gender diverse identity) were significantly related to lower levels of psychological distress in an adult sample (N=23; Allan, 2017). The magnitude of self-compassion was related to lower levels of emotional distress. Components of selfcompassion as determined by Neff's scale (Neff 2003a) were self-kindness (r = -.49, p < .001), mindfulness (r = -.50, p < .001), and common humanity (r = -.47, p < .001), which were found to be significantly negatively related to emotional distress. Self-judgement (r = .57, p < .001), isolation (r = .65, p < .001), and over-identification (r = .63 p < .001) were significantly positively associated with emotional distress. Age, income, education, and sexual orientation accounted for 26% of the variance in predicting levels of distress. Whilst being older, more educated, heterosexual and earning higher wages were related to lower distress levels. Interestingly, sex assigned at birth and race were not associated with distress. When demographic variables were controlled for, self-compassion accounted for 28% of the variance in predicting emotional distress. Outness was not a significant predictor of emotional distress, yet self-compassion was positively related to this variable, accounting for 10% of the variance in outness in the regression analysis. Though the sample was small, it suggests it could be a helpful factor in mediating distress if applied to gender diverse youth.

Self-compassion and perceived family support were found to be significant protective factors against depression in another adult gender diverse sample (Samrock, Kleine & Randall, 2021). Cross-sectional data (N=148) found self-compassion was significantly and negatively associated with symptoms of depression and was further mitigated when combined with

perceived family support. Self-compassion was found to be especially beneficial for young adults (aged 18-24 years). However, the inclusion criteria suggested participants must experience gender dysphoria to take part, though not all gender diverse CYP experience dysphoria, so this may not be representative of the population as a whole.

Self-compassion was found to be an effective coping strategy for managing gender-related stress in an adult gender diverse sample (N=30; Gorman et al., 2022). Qualitative interview data allowed greater insight into the challenges of educating cisgender family, friends, and professionals. Using strategic avoidance or modifying the ways of expressing their identity were strategies used to cope with stressors, which aligns with coping styles of other marginalised groups. Whilst avoidance is sometimes viewed negatively in psychological literature, given the threatening and pervasive challenges someone with a stigmatised identity might face, strategic avoidance could be crucial to maintain emotional and physical safety in the face of danger (e.g., Bogart et al., 2018). A third of participants reported developing resilience from the intersection of other marginalised identities (e.g., race, spirituality, and mental health). They reported assimilating or concealing some aspects of their identity to protect themselves depending on the audience. On realising that they could reframe the judgement and pain from others, from whom they may never be accepted by due to their race and gender, gave them freedom of self-expression and acceptance. The majority of participants described concepts of self-compassion as a way of coping, for example, 'not internalising others' judgments' and letting go of shame projected onto them by others. Being self-compassionate towards themselves was the key to coping with difficult life experiences, despite the rejection and judgment from others and this being difficult for them in the past. However, participants also frequently reported utilising intragroup support systems, accessing shared community spaces to connect, which built and sustained resilience. The researchers acknowledged that their cisgender identity may have distanced them from encoding qualitative interviews.

1.9.5 Benefits of Self-compassion Focused Approaches in Gender Diverse Youth

As self-compassion has been reported to be a modifiable trait in experimental studies in cisgender adolescents (Bluth et al., 2016; Galla, 2016) and adults (Albertson et al., 2015; Kelly & Carter, 2015), the benefits of cultivating self-compassion extend across the gender spectrum. Some early research has begun to explore the feasibility of self-compassion interventions for gender diverse CYP in clinical samples (Bluth, Lathren, Clepper-Faith, Larson, Ogunbamowo & Pflum, 2021). Preliminary quantitative analysis (*N*= 41) of an empirically based 'Mindful self-compassion for Teens' program online suggested psychosocial outcomes (e.g., self-compassion, mindfulness, resilience, depression, and anxiety) significantly improved post-intervention, and

after a 3-month delay suggested improvements were sustained. Qualitative interviews and semi-structured survey data was analysed using both inductive and deductive methods and four themes emerged, including virtual safe space, personal growth and connection to the body, alongside some recommended changes to the group. The intervention helped them to feel less isolated and sharing their vulnerabilities with others in the presence of non-judgemental facilitators enhanced a sense of common humanity. This is likely to have contributed to their improved mental health. However, the study excluded young people who were beginning gender affirming treatment or puberty blocking hormones, due to possible changes in mental health, or those who were at moderate to severe risk of depressive symptoms or self-harm. The COVID-19 pandemic may have impacted on recruitment and retention rates as well as variability in mental health. As the group was facilitated by cisgender women, this may have limited their ability to understand participants' experiences. Young people recommended having at least one gender diverse facilitator would have been easier to relate to and improve recruitment and retention.

Overall, this suggests that trait self-compassion could be beneficial in improving well-being for this group and early research suggest that there may be benefits of cultivating self-compassion can be sustained over a number of months. Though follow up studies are required to confirm these findings, preliminary data is promising for adolescents (Bluth et al., 2016). Of note, applying principles of self-compassion in gender diverse populations does not suggest that CYP should accept their sex assigned at birth or physicality of the body associated with this. Instead, it suggests treating oneself and one's body with kindness and compassion whilst pursuing those changes as well as more broadly in day-to-day life. There may well be challenges that young people experience outside of their experience with their bodies (e.g., experience of waiting for physical treatment) which could also benefit from a self-compassionate mindset. This notion has been particularly helpful for adolescents managing distress associated with LTC and cancer (Lathren et al., 2018). Thinking about how self-compassion as opposed to self-criticism was a helpful trait when managing distress rather than trying to change any aspect of themselves.

To the researcher's knowledge, self-compassion has been linked to lower levels of distress in an increasing number of studies within the last few years in gender diverse populations (e.g., Bluth et al., 2021; Samrock, Kleine & Randall, 2021). Interestingly, other factors associated with psychological well-being such as 'outness' were not linked, but family support was consistently found to be the protective factor for this population (Allan, 2017). However, self-compassion has not yet been measured in gender diverse CYP alongside other relevant constructs for this population such as tolerance of uncertainty. Given the growing amount of uncertainty this population has faced, especially in recent times when considering the wider socio-political

context on top of individual factors related to exploring and expressing their gender identity, trait tolerance of uncertainty was also explored.

1.10 Tolerance of Uncertainty

Uncertainty is a part of everyday life and can lead to a range of psychological effects including anxiety and low mood (Hillen et al., 2017). This construct is highly relevant to CYP at this critical developmental stage, and even more so for gender diverse individuals as the task of exploring gender identity holds many unknowns (e.g., how one's gender identity may change over time, what changes may happen to their body, how people will respond to their gender identity, what the outcome of their gender assessment may be if accessing services). Tolerance of uncertainty has been defined as an "individual's dispositional capacity to endure the aversive response triggered by the perceived absence of salient, key or sufficient information" (Carleton, 2016, p.30). Hillen et al., (2017) later developed an integrative model of 'uncertainty tolerance'. They proposed that a stimulus, i.e., conscious awareness of missing knowledge about a particular subject or aspect of the world, then triggers a great number of positive (adaptive) or negative (maladaptive) psychological responses, including cognitive (e.g., positive or negative appraisal of an event), emotional (e.g., excitement, worry, fear, anger) and behavioural (e.g., information seeking, decision avoidance) responses. The model proposes that whilst the perception of the stimulus and perceived uncertainty requires metacognitive awareness, responses may be conscious and intentional, or unconscious and reflexive as individuals may not always be aware of how their uncertainty is influencing their thoughts feelings or behaviours (Hillan et al., 2017).

There are significant differences in how individuals respond to uncertainty, some aim to reduce uncertainty by seeking out more information (e.g., seek information on the internet), whereas others may ignore or minimise experiences of uncertainty (e.g., suppress unwanted feelings about gender incongruence) to reduce unwanted consequences. Moderating factors impacting on an individual's tolerance of uncertainty include stimulus characteristics, such as the complexity or ambiguity of the stimulus causing uncertainty, individual differences, and sociocultural factors (Hillan et al., 2017).

Some suggest responses to uncertainty are context specific, rather than being a static or generalised personality trait (Durrheim & Foster, 1997) whereas others suggest the phenomenon could be approached flexibly and may be relatively stable for some and vary within and between individuals across different contexts (Hillen et al., 2017). A trait-focused approach allows for exploration of individual differences of tolerance to uncertainty, which has utility for

understanding and developing tailored interventions to support populations (e.g., supporting health related decisions), whereas a state-focused approach enables exploration of context specific factors which may support interventions to improve tolerance to uncertainty.

1.10.1 Tolerance of Uncertainty in Community and Clinical Populations

A large body of research has demonstrated uncertainty provokes uncomfortable emotions and leads to avoidance of decision-making both inside and outside of clinical health domains. Intolerance to uncertainty is often associated with worry, social anxiety, and generalised anxiety disorder (GAD) in cisgender adolescents (Boelen, Vrinssen van Tulder, 2010; Read, Comer & Kendall, 2013). A multi-level mediation analysis of a CBT programme for individuals with GAD indicated tolerance of uncertainty mediated change in worry in an adult sample (Bomyea et al., 2015). Increased tolerance of uncertainty accounted for 59% of reductions in worry.

In recent literature, maladaptive coping and responses were found to partially mediate the relationship between tolerance of uncertainty and psychological distress in the COVID-19 pandemic (Rettie & Daniels, 2020; Bakioğlu, Korkmaz & Ercan, 2020). Thus, it was suggested that interventions which aim to improve tolerance of uncertainty could in turn increase levels of positivity and reduce psychological distress in uncertain times such as the current global pandemic.

CYP with a diagnosis of ASC reported intolerance of uncertainty significantly elevated their levels of anxiety and subsequent repetitive coping behaviours, which were linked to risks with mental health conditions (e.g., Obsessive compulsive tendencies) and suicidality in adulthood (Boutler, Freeston & Rogers, 2014). Levels of tolerance of uncertainty have also been found to distinguish between clinical and non-clinical presentations of anxiety in CYP (Comer et al., 2009). Whilst there is some evidence that tolerance of uncertainty mediates psychological distress for individuals with LTC, mental health conditions and in neurodiverse populations across the lifespan, this construct has never been measured within a young gender diverse sample.

Research suggests that early adverse childhood experiences (ACE) and difficulties tolerating uncertainty are positively correlated (Sternheim et al., 2017). One survey found 48% of gender diverse CYP were exposed to four or more ACEs in comparison to 14% of the population more broadly (Zettler et al., 2018). Research also suggests, those who have been exposed to traumatic life experiences may have less capacity to tolerate distress arising from uncertain circumstances. Of note, 'distress tolerance' is defined as one's capacity to endure aversive

physical or emotional events more broadly (Zettler et al., 2018), whereas 'tolerance to uncertainty' specifically refers to distress arising from uncertain situations. Though there are nuanced differences, there is an overlap between the cognitive affective processes involved with managing distress such as experiential avoidance or emotional regulation for example (Leyro et al., 2010).

These risks of early developmental and relational trauma are especially high for gender diverse CYP accessing services (Kozlowska et al., 2021). Thus, there is evidence to suggest gender diverse people are more likely to be predisposed to experiencing difficulties tolerating uncertainty. Given the prevalence of ASC in gender diverse populations, co-occurring presentations are likely to exacerbate these difficulties, though this has not yet been explored empirically. Both self-compassion and tolerance of uncertainty have been found to reduce psychological distress in CYP, LTC, and populations experiencing mental health conditions more broadly.

1.11 Self-compassion and Tolerance of Uncertainty

There are a small number of studies exploring both self-compassion and tolerance of uncertainty constructs together. In one student sample, the two concepts were negatively correlated when tested with a structural model, with self-compassion being a direct negative predictor of intolerance of uncertainty (Tang, 2019). Self-compassion was found to mediate the relationship between intolerance of uncertainty and worry in participants with GAD (Woo & Hyun, 2020). Intolerance of uncertainty was found to inhibit the benefits of self-compassion, leading to increased worry. When comparing constructs of self-compassion, self-kindness and common humanity were the most effective mediators of distress. In another survey study, tolerance of uncertainty and mindfulness significantly reduced experiences of psychological distress in a student sample (Nekic & Mamic, 2019). Findings suggested that there was an indirect effect of tolerance of uncertainty on reduced anxiety and depression through mindfulness which is a key component of self-compassion.

Deniz (2021) more recently explored the mediating role of intolerance of uncertainty between the relationship of self-compassion and psychological well-being in an adult sample in the context of the COVID-19 pandemic (N=667) in Turkey. Researchers theorised that those who are more self-compassionate are less likely to present with avoidant behaviour, and positively evaluate situations adopting a proactive coping style. With this said, self-compassion is likely to reduce the intolerance of uncertainty, and appraise situations in a balanced way, and distance themselves from shame or guilt (Neely et al., 2009; Terry & Leary, 2011). Whilst self-compassion

and tolerance of uncertainty were associated with reduced distress as individual concepts in cross-sectional models, self-compassion has the possible effect of reducing intolerance of uncertainty reducing Covid fear and improving well-being (Deniz, 2021). Self-compassion, intolerance of uncertainty, fear of COVID-19 and well-being were all found to be significantly interrelated with intolerance of uncertainty and fear of COVID 19, playing a sequential mediation role between self-compassion and well-being. Individuals with higher levels of self-compassion, reported lower intolerance of uncertainty, in turn decreasing perceived fear of COVID-19 and increasing psychological well-being. Though bootstrapping was used, due to the cross-sectional nature of the data, causal trends should be interpreted with caution and the effect size was also small.

Initial anecdotal evidence from Canvin et al's., (2022) recent paper utilised an illustrative case example which amalgamated perspectives of a number of different cases whilst preserving anonymity for individuals. This demonstrated some common experiences of CYP experiencing difficulties tolerating uncertainty and being kind to themselves. Approaches combined principles from third-wave CBT which combined adapted self-compassion approaches, ACT, and distress tolerance from DBT to support gender-related distress. This has been reportedly beneficial for CYP in managing anxiety and gender-related distress. Further research was recommended to explore and evaluate experiences of gender-related distress both qualitatively and quantitatively to inform a practice-based evidence approach and inform therapeutic guidance (Canvin et al., 2022). As gender related healthcare services for CYP continue to be reviewed and restructured, it is hoped pathways to therapeutic support will be clearer and more accessible.

In sum, the narrative literature review indicated that there were no current articles exploring the relationship between self-compassion, tolerance of uncertainty and the impact these constructs have of psychological distress in gender diverse youth. However, these concepts are particularly relevant for gender diverse youth given the increased exposure to stigma and minority stressors. Research shows gender diverse populations are more likely to have traumatic experiences in childhood, therefore may be less able to be self-compassionate, and more likely to experience greater uncertainty. These experiences could be exacerbated amidst the uncertainty within the UK in the current climate with long waiting times to access specialist services or support. Whilst change is much needed on a broader systemic level, in the interim, gaining a broader understanding of how naturally occurring traits could impact on experiences of distress for gender diverse CYP could help individualise approaches to therapeutic support (Canvin et al., 2022). Hence, there is a strong rationale for exploring whether self-compassion can improve

gender diverse individuals' tolerance of uncertainty as the context of uncertainty is often inherent in their experiences.

The combined benefits of self-compassion in reducing experiences of psychological distress through greater tolerance of uncertainty has been explored in a small number of studies (Tang, 2019; Deniz, 2021). Of note, much of the literature is based on cross-sectional data which only allows for exploration of exposure and outcome at a single point, which limits exploration of relationships between variables over time. There is a need for prospective cohort studies to make predictive conclusions on how to ameliorate distress for gender diverse CYP and guide gender identity development pathways and therapeutic support in future.

1.12 Summary and Research Aims

Exploring, understanding and expressing one's gender identity can be both a liberating and affirming experience, yet emotionally challenging. Negotiating complex decisions regarding possible social and physical transitions can understandably cause distress for some (Jones & Hillier, 2013). It is argued that gender diversity itself is not the issue, but the exposure to victimisation, stigma and potential abuse is the main cause of distress (Boddington, 2016). It is well documented, often in the context of the minority stress model, that gender diverse CYP are more likely to internalise negative experiences which can lead to feelings of shame, self-criticism and isolation (Greene & Britton, 2015). Hence, there is a strong rationale to explore self-compassion in gender diverse populations as the constructs associated with this trait, self-kindness, common humanity, and mindfulness, have been found to prevent or reduce psychological distress and promote emotional well-being in a wide range of populations.

Exploring and expressing one's gender identity is often characterised by uncertainty about what the future holds both individually and relationally. Tolerance of uncertainty and self-compassion have been closely associated with reduced psychological distress in many populations including CYP, LTC, ASC and mental health conditions more broadly. Theoretically, in the face of adversity, individuals with greater levels of self-compassion are likely to respond mindfully, with self-kindness and appreciate the context of common humanity rather than being self-critical or over-identifying with an event. In turn, the individual may be more able to tolerate experiences of uncertainty and cope more adaptively, appraising an event with balanced judgement, sitting with uncomfortable emotions, and approach the situation with curiosity rather than avoidance or excessive information seeking. This is likely to promote emotional well-being and reduce psychological distress.

1.12.1 Research Aims

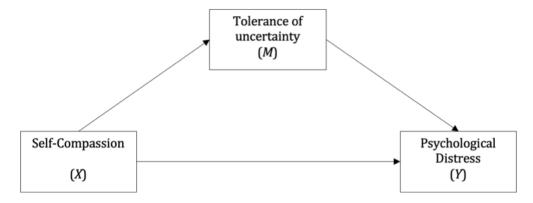
This study aims to generate an understanding of the strength and direction of relationships between naturally occurring self-compassion, tolerance of uncertainty and psychological distress in a young gender diverse sample to inform future clinical practice at GIDS and wider supporting networks for gender diverse populations.

1.12.2 Theoretical Framework

It is hypothesised that CYP with higher levels of self-compassion will have greater capacity to respond to challenging situations mindfully, remaining grounded in the present moment rather than over-identifying, or ruminating about negative events. Perhaps most importantly, self-compassion would allow for greater capacity to cope with identity related stigma, evaluating emotional challenges as part of common humanity as opposed to personal failure which would reduce experiences of isolation.

The current study examines the relationships between self-compassion and tolerance of uncertainty separately in relation to psychological distress; however, it also aims to explore tolerance of uncertainty as a mediator (M) of the relationship between self-compassion (X) and psychological distress (Y) as demonstrated in Figure 1 below. This is based on the idea that self-compassion helps individuals remain mindfully attuned to the present moment in adverse situations, rather than being self-critical or judgemental and can approach difficulties in a kind and balanced way. As such, they may be more equipped to tolerate uncertainty associated with exploring or expressing their gender identity by approaching situation with curiosity, kindness, and empathy. Ultimately, these qualities may support gender diverse CYP to manage feelings of uncertainty, in turn reducing distress. Due to the high prevalence of social communication difficulties and ASC within this group, it is also clinically relevant to consider as a potential covariate.

Figure 1Hypothesised Mediation Model: Self-compassion, Tolerance of Uncertainty and Psychological Distress



If self-compassion is found to reduce distress and be mediated by tolerance of uncertainty in a gender diverse sample, this could have important implications for future interventions as it is known that self-compassion and tolerance of uncertainty can be cultivated via therapeutic support as well as being naturally occurring traits. Subsequently, interventions involving these concepts could be instructed with greater confidence to reduce psychological distress. In addition, if self-compassion is found to reduce experiences of psychological distress in gender diverse CYP through increased tolerance of uncertainty, the underlying mechanisms of these associations of these variables will be better understood.

1.12.3 Hypotheses

- 1) Higher levels of trait self-compassion will predict lower levels of psychological distress in gender diverse youth.
- 2) Higher levels of tolerance of uncertainty will predict lower levels of psychological distress in gender diverse youth.
- 3) There will be significant indirect effect of self-compassion on psychological distress through tolerance of uncertainty (mediation) in gender diverse youth.

Chapter 2: Methodology

2.1 Proposed Design

As existing research in this area is often limited by cross-sectional designs which do not allow for inferences to be made about causality, the study initially planned to utilise a prospective online survey design. This aimed to measure variables over time to generate an understanding of the strength and direction of relationships between predictor variables (self-compassion and tolerance of uncertainty) to determine how they impact on the dependent variable of psychological distress in gender diverse youth at two different points in time. However, several unforeseen national events had a significant impact on the implementation of the originally proposed research design. These included the COVID-19 Pandemic, the fallout from the Bell vs. Tavistock (2020) judicial review, and the exclusion of gender diverse individuals from the ban on conversion therapy despite this population being most exposed to this practice (ONS, 2021). These circumstances meant that NHS and third sector organisations understandably had to prioritise resources to support young people, which limited capacity to support recruitment at times.

These circumstances significantly impacted on recruitment and significant adaptations were made to the design, research materials, inclusion criteria, recruitment process, and participant procedures to try and compensate for the impact on recruitment. Public and patient involvement and feedback from supporting organisations were also taken into consideration. The inclusion criteria were broadened increasing upper age limit by one year and the recruitment strategy was expanded to include social media. The design was changed from longitudinal to cross-sectional due to recruitment delays in the context of a time-limited doctoral research project.

2.2 Design

The current study used a cross-sectional online survey. Quantitative methods were selected over qualitative methods to test how well the proposed theoretical model, informed by a review of existing literature, fitted with data from this group. Participants were recruited from community organisations and a clinical sample from GIDS and were required to complete questionnaires that captured demographic information, trait self-compassion, trait tolerance of uncertainty and psychological distress. A parent-scored questionnaire on social communication was also included given the high prevalence of social communication difficulties in gender diverse young people, this was explored as a potential covariate.

2.3 Ethical Clearance

The study was approved by the South West - Central Bristol Research Ethics Committee in June 2021 (21/SW/0071) and evidenced in Appendix B.

2.4 Epistemology

The project adopts a critical realist position in that it seeks to find regularities of lived experiences occurring within the world. As we cannot know 'absolute truths or realities' with any certainty, conclusions will be appropriately tentative (Cook & Campbell, 1979). This stance incorporates ideas from coherence theory, which suggests there is truth in a belief that is internally consistent and does not contradict logic, and the consensus criterion, whereby there is truth in a belief if it shared by a group of people and underpinned by sociological theories of knowledge (Barker, Pistrang & Elliot, 2002). This position places particular emphasis on replicability of study design.

2.5 Reflexivity

Elliot, Fischer and Rennie (1999) stated the importance of considering your own positioning when conducting any qualitative evaluation. Though the majority of the analysis in this thesis is quantitative, I included a reflexive statement which is detailed at the beginning of this paper to consider my role and positioning as lead investigator. A brief content analysis was also completed. A reflexive awareness was held during the analysis as I considered areas of potential bias, for example, how my knowledge of social transition may have been influenced by reviewing the literature and from conversations with PPI representatives, and I do not have personal experience of this process. Inductive approaches were utilised which aimed to mitigate risk of any unconscious biases or pre-conceived ideas steering the analysis in any particular direction, whilst simultaneously incorporating my pre-existing knowledge base to enhance a deeper understanding of the data. Consultations with supervisors were held to quality check this analytic procedure. Such analytic processes aimed to ensure the analysis centered the voices of gender diverse experiences and enhanced the reliability and validity of the data. Public and patient involvement (PPI) was embedded at different stages of the project (e.g., holding a focus group to review research materials, revising recruitment strategies, and consultations surrounding dissemination of results). PPI involvement aimed to include the voices of gender diverse individuals and reduce potential for researcher bias. Reflexive conversations were held supervision and additional meetings with my field supervisor to hold an awareness of potential

biases which could impact the process of conducting the project more broadly and reflect on the current socio-political context.

2.6 Participants and Procedure

2.6.1 **Sample**

The sample were young people aged between 14 to 18 years and 6 months self-identifying as gender diverse who responded to adverts shared by community organisations, on social media and email invitations from GIDS. The estimate of sample size for a cross sectional study was calculated using G^*Power version 3.1.9.2 (Faul, Erdfelder, Buchner & Lang, 2009). To achieve 80% power, a sample size of at least 68 was estimated to be required to detect a moderate effect size where F2 = 0.15 at a significance level of alpha = 0.05, using a multiple linear regression fixed model with R^2 increase including two tested predictors (total self-compassion score and total intolerance of uncertainty score) and nine total predictors (including demographic variables and potential covariates identified within the literature review, including a social communication measure). A total of 79 gender diverse young people completed the online survey. One participant did not complete the item which asked them for their assigned gender at birth. This was required to score the dependent variable; therefore, participant data was removed from the sample.

2.6.2 Eligibility Criteria

The eligibility criteria were broad in order to be as inclusive as possible.

Inclusion Criteria. Aged between 14-18.5 years, able to understand and write in English sufficiently to answer the survey questions, be considered capable of informed consent by their assigned clinician (GIDS sample only) and where participants were under the age of 16 informed consent needed to be provided by a caregiver. The rationale for the upper age limit was to ensure there is enough time for the young person to complete the study before they were discharged in the GIDS sample, thus criteria were applied to both groups to try and control variability between samples.

Exclusion Criteria. Outside the stated age range, unable to understand and write in English, unable to provide informed consent themselves as decided by their respective clinician (GIDS Sample), or from a caregiver if under the age of 16 (Community Sample), and if they were engaging in a concurrent longitudinal research project at GIDS.

Whilst the importance of making reasonable adjustments to promote inclusivity were acknowledged, the nature of using standardised measures for the purpose of online surveys in the context of limited resources and licencing agreements, it was not feasible to make adjustments for those who would require additional support because of an impairment or required the survey to be translated into a different language. However, the participant information sheet was audio recorded to facilitate understanding and engagement in the informed consent process.

2.6.3 Recruitment

The study compromised of two recruitment strands from either the GIDS service (GIDS Sample) or community organisations (Community Sample).

Community Sample. Community organisations such as Mermaids, Gendered Intelligence and Mosaic were approached to support recruitment by sharing the research advert (Appendix C). A broad range of organisations were approached to ensure composition was as diverse as possible to reduce potential bias (Mustanski, 2001). The advert was shared on respective websites, newsletters, support groups, mailing lists or social media platforms. The researcher shared the advert on a project specific social media account. Research advocates (paid role for two gender diverse young people) also circulated the advert via word of mouth, peer support groups, online support forums, email, and social media platforms. Potential participants followed an accompanying link or QR code directing them to the online survey platform to read the participant information sheet, consent form and questionnaires (Appendix D-I).

Community Pathway Under 16. Participants under the age of 16 were required to provide an email address for a parent or caregiver to provide informed consent. Once consent was obtained the link and password to access the survey was shared.

GIDS Pathway. All young people in GIDS were offered the opportunity to receive information about potential research opportunities. If they provided consent to be contacted about upcoming research projects, eligible participants were notified about the project. Clinical recruitment occurred in the following ways:

a) Clinicians reviewed their caseloads, identified potential participants and sent their details to the GIDS research team to screen. Participants who had consented to be contacted and

- who were not taking part in a concurrent research study were considered eligible to take part.
- **b)** Clinician identified someone eligible to take part and obtained verbal consent to be contacted by the researcher (e.g., following a discussion at an assessment appointment by members of the direct care team).

When consent was obtained, contact information was emailed to the researcher via the internal encrypted email service. The researcher then emailed an invitation to the survey link to participants.

GIDS Pathway Under 16. Participants under the age of 16 provided an email address of a parent or caregiver who provided informed consent before receiving the invite to survey link.

2.6.4 Sampling Strategy

Organisations supporting gender diverse youth with large online followings were approached to advertise the study. Recruitment was opened to the GIDS pathway and three selected community forums initially (Mermaids, Gendered Intelligence and Mosaic, as they support CYP in similar geographical areas as GIDS, have a large following, and were recommended by the PPI group). Further community services were subsequently approached using three directories, 'Transwiki', 'LGBT Consortium Directory', 'Stonewall LGBTQ Inclusive organisations', pride organisations, and the 'Transgender UK' and 'Non-Binary UK' Reddit chat forums. Organisations supporting gender diverse populations with intersectional identities were prioritised, based on whether the service acknowledged they supported CYP from different ethnic backgrounds, had a disability, and a range of faiths groups across the UK.

A total of 323 community organisations were approached. A total of 80 organisations supported research advertisement. Many other supporters of the project reshared the post on social media. This sampling strategy aimed to ensure a representative sample was recruited from both GIDS and community settings, which reflects the diversity of gender diverse CYP. Statistics generated from social media websites suggested the adverts reach over 15,000 newsfeeds and were actively engaged with by over 450 accounts.

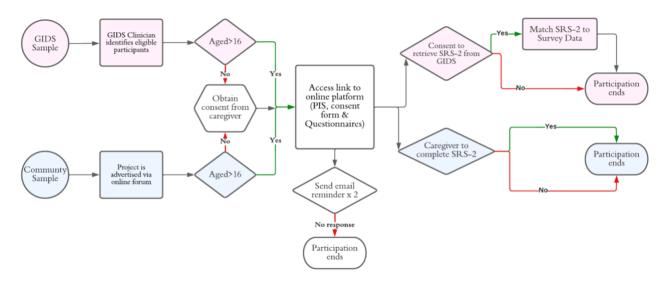
Clinicians at GIDS identified 208 potential participants from the service. Following eligibility screening, 11 respondents were excluded as they were already participating in another study, three were 13 years old so were not eligible, 68 had not provided consent to be contacted about upcoming research, and three were under the age of sixteen and the details of a parent or

caregiver were not available to provide informed consent. A total of 123 potential participants were contacted. Of these, 27 completed the survey (22.0% return rate).

2.6.5 Procedure

Once recruited to the study, participants were directed to an online hosting platform called 'Qualtrics' which was password protected to complete a series of questionnaires (Appendix D-I). Participants were asked to complete items about demographic and gender identity related characteristics, before a set of standardised questionnaires which measured self-compassion, tolerance of uncertainty and psychological distress. Finally, a parent or caregiver was asked to complete a measure on social communication given the high prevalence of social communication difficulties in gender diverse young people in order to explore this variable as a potential covariate. Table 1 provides a list of the questionnaires.

Figure 2Study procedure for GIDS and Community Pathways



2.6.6 Social Communication Measurement Process

Community Sample. After completing the self-report survey questions, young people were asked if a parent or caregiver could complete the final measure. This was not mandatory if participants did not want to involve a caregiver.

GIDS Sample. Consent to access SRS-2 data from GIDS was sought from the GIDS sample as data is routinely collected by the service. Participants provided their name and date of birth in order for the GIDS research team to retrieve their data. A link anonymisation system was developed to ensure E-questionnaire data was pseudonymised before it was analysed.

All Pathways. Respondents were asked to complete the questionnaires within four weeks of receiving them. Email reminders were sent after two weeks and three weeks (Appendix 8a) to maximise recruitment potential. When the participant returned the questionnaires or did not respond within four weeks, their participation in the study ended.

2.7 Measures

2.7.1 Demographic and Gender Identity-Related Information

The demographic questionnaire measured their age, gender assigned at birth, ethnicity, and whether they were in full time education or not. They were also asked about their current gender identity, length of time they had identified as their current gender identity and whether they had made a social transition (Appendix C). A definition of social transition was included in the questionnaire as follows; "A social transition is a word used to refer to the 'social' elements of living according to your gender identity; for example, telling others about your gender identity, changing your name and pronouns and the way you express yourself" (Appendix C). Free text options allowed for idiographic responses for 'gender identity' or 'details about social transition' however, qualitative answers were kept to a minimum to reduce risk of attrition (Andrews et al., 2003).

2.7.2 Standardised Outcome Measures

Measurement of the study constructs were collected using a range of standardised measures detailed in Table 1.

Table 1List of Standardised Questionnaires

Measure	Construct	α с	oefficient
Self-Compassion Scale (SCS; Neff, 2003b)	Self-Compassion	.93	(Neff & McGehee, 2009)
The Intolerance of Uncertainty Scale for Children Short Form (IUSC-12; Cornacchio et al., 2018)	Tolerance of Uncertainty	.86	(Cornacchio et al., 2018)
Revised Children's Anxiety and Depression Scale (RCADS; Chorpita, Yim, Moffitt, Umemoto & Francis, 2000)	Psychological Distress	.96	(de Ross et al., 2002)
Social Responsiveness Scale 2 nd Edition (SRS-2; Constantino & Gruber, 2012)	Social communication and interaction	.86	(Bruni, 2014)

Self-Compassion Scale. Self-compassion was measured using the Self-Compassion Scale which was developed and validated on English and Dutch samples (SCS; Neff, 2003b; Appendix F). The SCS is a quantitative self-report measure which can be used with CYP aged 14 and above to assess an individual's ability to be self-compassionate towards themselves. The measure has 26-items which derives six subscales, three relating to the 'positive' aspects of self-compassion; self-kindness, common humanity, and mindfulness, and three relating to the three negative aspects; self-judgement, isolation, and over-identification. Items were presented on a Likert scale anchored at (1) 'almost never', to (5) 'almost always'. The overall score is obtained by reverse scoring negatively worded items and averaging the total score which range from 1 to 5. Higher scores indicate higher levels of self-compassion. The short version of this measure (Self Compassion Scale -Short Form) was considered for the study, however, reliable analysis of subscales has not yet been evidenced (Neff, 2019).

The Intolerance of Uncertainty Scale for Children. Intolerance of uncertainty was measured using the short version of the self-report Intolerance of Uncertainty Measure for Children (IUSC-12; Cornacchio et al., 2018; Appendix G). The IUSC was originally developed by Comer et al. (2009) and has 27-items which assess children's tendency to react negatively on an emotional, cognitive or behavioural level in response to uncertain situations and events. The child version of the scale is an adapted version of the adult Intolerance of Uncertainty Scale (IUS; Freeston et al., 1994). In the child version, items are reworded to enhance child compatibility. A recent study supported a shortened 12-item version of the IUSC including items which are the same as the adult equivalent (IUS-12; Carleton, Norton et al., 2007). Participants responded on a 5-point Likert scale ranging from 1 to 5 (1: 'Not at all'; 3: 'Somewhat'; 5: 'Very much'), with a total

score ranging from 12 to 60. An increase in points indicates an increase in intolerance of uncertainty, therefore low scores indicate a better ability to tolerate uncertainty. A 2-factor structure distinguished prospective intolerance of uncertainty (apprehensive anxiety in relation to fear of future events) and inhibitory intolerance of uncertainty (negative responses or inhibitory behaviour in the context of uncertain events). The total score measuring general intolerance of uncertainty was demonstrated to have higher reliability than inhibitory and prospective subscales (Cornacchio et al., 2018).

Revised Children's Anxiety and Depression Scale. Psychological distress was measured using the Revised Children's Anxiety and Depression Scale (RCADS; Chorpita, Yim, Moffitt, Umemoto & Francis, 2000; Appendix H). The RCADS is a quantitative self-report measure with 47-items which assesses the frequency of various symptoms of anxiety and low mood. Questions are rated on a 4-point Likert-scale from 0 ('never') to 3 ('always'). The measure produces a total anxiety and low mood score along with some other specific symptom subscale scores (e.g., social phobia, generalised anxiety). A systematic review demonstrated the measure shows robust internal consistency reliability across assessment settings, in a range of countries and in different languages (Piqueras, Martín-Vivar, Sandin, San Luis & Pineda, 2017). The Youth Report Scale (Achenback, 1991) was also considered as this is used in the GIDS as a routine outcome measure, however, this was not considered financially viable in comparison to the RCADS. For the purposes of this study, only the 'internalising score', which combines low mood and anxiety subscale scores was used. Overall scores range from 0 to 141 and are converted to Tscores. Higher scores indicate higher severity of difficulties. The 'clinical thresholds' for the RCADS were established using the interview schedule for anxiety disorders from the DSM-IV, and the (ADIS-IV-C/P; Silverman & Albano, 1996) to compare and establish clinical thresholds (Chorpita et al., 2005). These thresholds are based on normative data and will be reported in subsequent sections.

Social Responsiveness Scale 2nd Edition. Young people's social communication and functioning was measured using the Social Responsiveness Scale school age form (2nd Edition) (SRS-2; Constantino & Gruber, 2012; Appendix I). Permission to use this measure was granted from WPS publishers (Appendix I). The school-age SRS-2 is a parent-report measure to assess the social communication needs of children and adolescents and has been validated on CYP aged 4 to 18 years. The scale comprises 65 items which contain Likert scale responses ranging from '0' ('not true') to '3' ('almost always'). The scale produces sub scale scores (Social awareness, Social Cognition, Social Communication, Social Motivation and Restrictive Interests and Repetitive Behaviour) and a total score that serves as an index of severity of social functioning. The total

severity T score (SRS-2 Total) indicates the degree of social communication and interaction difficulties. Higher scores indicate higher severity of difficulties. T scores below 59 are reported to be within 'normal range' generally not indicative of difficulties in this area; between 60 and 65 are considered 'mild range' suggesting subtle social communication difficulties; 66 and 75 indicate 'moderate' difficulties; and T scores of 76 and above indicate 'severe' difficulties which may warrant further specialist assessment. Whilst other self-report measures were considered, the SRS-2 was selected due to its unrivalled evidence of validity across different cultures and clinical groups (Constantino et al., 2012). The SRS-2 was scored using normative data which considers birth assigned sex. SRS-2 total scores were collated as a potential covariate to control for the variance explained by social communication differences which are more prevalent in gender diverse populations. This measure explored co-occurring features of ASC and gender diversity in CYP (Leef et al., 2019; Skagerberg, Ceglie & Carmichael 2015). Parents or guardians were required to score behaviours they had noticed over a significant period of time. Symptoms were found to remain fairly static in CYP in clinical and general populations between one and five years (Constantino et al., 2009). However, the stability of data from clinical populations was less reliable and they advised data should be interpreted with caution.

2.7.3 Pilot Review of Materials

Materials were reviewed separately by experts in the field and a focus group (See PPI) and piloted with colleagues of the researcher to ensure final proofing, accessibility, and readability of the online platform. Strategies to improve response rates (e.g., a 'closeness of completion function', and completing demographic details first) were employed. The appearance of the questionnaires was replicated as near as possible so as not to impact on validity (Wang & Doong, 2010).

2.7.4 Data Available

On completion of the survey, questionnaire data was stored securely on the 'Qualtrics Platform'. Table 2 below details all the available data following the completion of questionnaires by young people and their caregivers.

Table 2Summary of Available Data

Concept/ Domain	Measure	Type of Data	Outcome	Predictor	Confounder
Demographic	Age	Continuous			
	Assigned gender at birth	Dichotomous			
	Ethnicity	Categorical			
	Education/Employment Status	Categorical/Qualitative	ė		
Gender related variables	Gender identity	Qualitative			
	Years identified as current gender	Continuous			
	Sample (GIDS/Community)	Dichotomous			
	Social Transition	Dichotomous			
	Details about social transition	Qualitative			
Self-Compassion Scale	Overall Score	Continuous			
	Self-kindness	Continuous			
	Common humanity	Continuous			
	Mindfulness	Continuous			
	Self-judgement subscale score	Continuous			
	Isolation subscale score	Continuous			
	Over-identification subscale score	Continuous			

Concept/ Domain	Measure	Type of Data	Outcome	Predictor	Confounder
Intolerance of Uncertainty	Overall score	Continuous			
Scale for Children					
	Prospective Anxiety subscale score	Continuous			
	Inhibitory Anxiety subscale score	Continuous			
Revised Children's Anxiety	Total 'Internalising' Score	Continuous			
and Depression Scale	Comprised of total anxiety and low mood subscale				
	scores				
	Total Anxiety score	Continuous			
	(Comprised of Separation anxiety, social phobia,				
	Generalised anxiety, Panic and Obsessive-				
	compulsive subscales)				
	Low Mood	Continuous			
	(Comprised of Major Depressive Disorder subscale)				
Social Responsiveness Scale	Total score	Continuous			
2 nd Edition	(Comprised of social awareness subscale, social				
	cognition subscale, social communication subscale,				
	social motivation subscale, restrictive interests				
	subscale and repetitive behaviour subscale)				

Note: Colours have been used for the purpose of a visual aid.

2.8 Data Extraction

Once recruitment ended, the available data were downloaded from the Qualtrics platform to an Excel spreadsheet. SRS-2 data from the GIDS sample was paired and anonymised using the link anonymisation system. All complete responses were then imported to SPSS version 26 (IBM, 2020).

2.9 Data Cleaning

The process of cleaning data before analysis involves modifying or removing any data which is incomplete, incorrect, formatted improperly or duplicated which could lead to misinterpreting the results (Pallant, 2016). A comprehensive summary of the data cleaning process is detailed in Appendix J and summarised below.

Demographics. There was limited variation in ethnic diversity within the sample. As participants selected either 'White' or 'Mixed/Multiple ethnic groups', this item was naturally dichotomous for the purpose of inferential statistics. Low variance was also observed across the education status item. Only a small number of participants reported that they were not accessing fulltime education or attending an alternative provision. For those who reported they were not engaging in any education, this was either because they were on an apprenticeship, employed, or due to mental health reasons as determined by supporting qualitative information. The original response data for education status is summarised descriptively in the descriptive statistics. It was then dichotomised for inferential statistics. Respondents who selected 'Yes- School', 'Yes – Sixth Form/College' or 'No' but offered further supporting information about engaging in full time employment were recoded into the category 'In full time education or employment'. Those who reported 'yes – other' or 'no' and provided supporting information to suggest they were not accessing full time education or employment (e.g., due to their mental health or a disability) were recoded as 'not in full time education or employment'.

Gender-related Information. There were a wide range of gender identity descriptors detailed. Nuances in spelling and grammar were changed to ensure descriptors were uniform (e.g., Demi boy and demi-boy were changed to Demi-boy). All gender diverse identities were analysed together, as no comparisons between different gender identities were planned. Qualitative descriptors were largely left unchanged when reporting descriptive statistics to recognise and validate the diversity and fluidity of gender identification for the sample. However, where some CYP reported unique combinations of multiple descriptors which could be

identifiable, they were grouped into the category 'multiple', and identifiers were listed separately to preserve anonymity.

Eight participants who accessed the survey via the community advert link reported they were currently accessing GIDS in response to the survey question. These participants were recoded from 'Community sample' to the 'GIDS Sample' for the purpose of the preliminary comparisons. Both community and GIDS samples were analysed together for the main analyses.

Respondents were asked "approximately how long have you identified in the way you do today?" There were some inconsistencies with how participants responded with some participants responding with a specific time (e.g., '6 years'), and some reporting approximate time frames (e.g., 'almost 1 year'). Data was rounded up or down to the nearest year, with 6 months or over being rounded up to the nearest year. Where a timeframe was stated, for example 'between 4 and 5 years', the mean value was calculated and then rounded up for example, to five years. Some respondents described two different points to mark their own recognition of their experienced gender identity or how long they have openly expressed their gender identity. Where multiple dates were described, the date which conveyed their own recognition of their gender identity, rather than the recognition of others, was recorded. This variable was named 'approximate number of years identified as current gender identity'. Some participants reported 'all my life', therefore the number of years was calculated from their current age.

There was little variation between those who had made a social transition in comparison to those who had not. As differences between groups were unequal this variable was described descriptively and excluded from inferential analyses. The majority (n=70) provided details about their social transition in a free text box. This generated more data than anticipated and to contextualise the sample, a content analysis was completed from a realist epistemological position (Boyatzis, 1998). This codes qualitative information in a systematic way to determine the frequency of specific ideas and tally the occurrence of terms or concepts within the data (APA, 2022). This approach is especially useful for summarising open ended questionnaire responses researching novel topic areas or conducting exploratory analyses (Hsieh & Shannon, 2005; Krippendorff, 2004). Inductive approaches reduce potential for bias from pre-conceived ideas about the topic area. This approach aimed to ensure the experiences of respondents took precedent over any pre-existing theoretical pre-conceptions, though as a cis-gender researcher, it was acknowledged this process could be rendered to bias. A reflexive awareness of potential personal and professional biases was held throughout analysis, to mitigate risk of such bias steering the analysis in any particular direction, whilst simultaneously incorporating relevant

pre-existing knowledge to enhance the meaning of the data. This aimed to ensure the analysis centred the voices of gender diverse experiences and bolstered the reliability and validity of the data. Erlingsson and Brysiewicz (2017) describe the following steps to completing an inductive content analysis which were adhered to:

- 1. Familiarise self with the data set
- 2. Identify meaning units
- 3. Condense meaning units into short phrases or sentences
- 4. Formulate codes to describe the meaning the text
- 5. Develop categories grouping similar codes together
- 6. Apply themes (optional)

The final stage of interpreting themes was not applied to the data set to in an attempt to uphold a realist position staying close to the data and content, rather than offering interpretation or latent meaning of data. Associated frequency data about their transition are presented. This process has an element of subjectivity and is not entirely free from conscious and unconscious biases as detailed above. Consideration of the hermeneutic circle in supervision allowed for quality checks of the data and reflexive discussion to consider any alternative ways of analysing the data (e.g., considering the length of meaning units and ensuring codes were representative of connections between meaning units). All codes and categories were retained for transparency. Credibility checks were completed following the recommendations of Elliott, Fischer, and Rennie (1999). Consultations with supervisors were held to quality check this analytic procedure. However, quality checks from PPI representatives could have enhanced the reliability and validity of this analysis further.

Standardised Participant Reported Outcome Measures. Standardised outcome measures for constructs of self-compassion, intolerance of uncertainty, and psychological distress have not been normed on gender diverse samples. In line with international gender clinics, assigned gender at birth was used to score measures which required this information (RCADS; SRS-2) to convert raw data to T-scores. This is a limitation to interpreting measures for gender diverse young people. In addition to 'assigned gender at birth', participants were also grouped by 'year group' to convert raw scores to T-scores on the RCADS. Participants in the community sample were grouped based on age and education status (e.g., 'Yes-Sixth Form/College' were grouped into '11th-12th Grade' based on US equivalents and school attenders between ages of 14 and 16 years were grouped into the '9th -10th Grade' category based on US equivalent's). Qualitative information was used to group participants who reported they were

not attending full-time mainstream provisions (i.e., 'yes-other' or 'no') into their grade equivalent's. Two participants who were aged 16 were not attending school and their equivalent year group could not be determined from the qualitative information provided. As they were 16 years of age, there was a greater likelihood that they would be in the lower grading bracket, so they were re-coded to ' 9^{th} – 10^{th} Grade'.

In the GIDS sample, multiple SRS-2 measures had been completed for some young people over time. This was likely due to two caregivers completing the measure for the same child or being repeated over time. In these cases, the measure closest to the time they completed the survey was chosen. There is evidence to suggest that as SRS-2 scores do not significantly change from GIDS populations over a period of one year (Russel et al., 2020) or up to five years in male CYP and is less reliable in clinical samples (Constantino, 2009). Therefore, it was decided to broaden the timeframe of SRS-2 measures to include measures completed within a five-year time frame. However, the return rate for the SRS-2 measure remained low. Only 54% of participants completed or returned the measure within this time frame, so this measure was excluded from analyses. In addition, the stability of traits measured across time is known to be reliable in clinical populations (Constantino, 2009). As such, the quality and quantity of social responsiveness data was not considered robust enough to consider as a covariate in the analyses and was only summarised descriptively and used to make initial comparisons.

Missing or Incomplete Data. All survey responses that were less than 91% Complete (i.e., did not have an interpretable RCADS) were removed. For the question regarding 'assigned gender at birth', one participant did not answer, and their response was excluded from analyses. Missing items on psychometric questionnaires were scored according to the manual (e.g., SRS-2, use the median score for missing items). Only one participant did not provide enough responses on the SRS-2 for it to be interpreted, so this was excluded from any analyses looking at SRS-2 data. No participants were over the cut score for missing values on any other questionnaires rendering scales as interpretable.

2.10 Data Analysis

SPSS version 26 (IBM, 2020) with the additional PROCESS macro (Hayes, 2022) was used to analyse the data. Descriptive statistics (minimum and maximum values, means, standard deviations, and 5% trimmed means), histograms, normal Q-Q plots, tests of normality, box plots, and skewness and kurtosis estimates were used to explore the distribution of the data (Table 3). This was completed for all continuous variables.

Overall, data was observed to be normally distributed for the dependent variable as per graphical representations of the Q-Q plots and as assessed by Shapiro-Wilk's test (p > .05). The total score on the self-compassion scale was also normally distributed. However, 'age' was negatively skewed with fewer respondents being under the age of 16. The 'approximate number of years identified as current gender' item was positively skewed. More respondents had identified as their current gender identity for a shorter time than longer timeframe. The intolerance of uncertainty total score was not normally distributed, as it was negatively skewed with more participants scoring highly on this scale.

Though some transformations supported the distribution of the data, following consultation with a statistician from the University of Leeds who reviewed distribution plots, the decision was made to use the original data for all variables for the purposes of inferential statistics as none of the assumptions for regression or mediation analyses had been violated. Though this may render outcomes from the statistical analysis to bias, this risk was considered to be low as Pearson's correlations are considered to be robust to small deviations from normality (Laerd Statistics, 2015).

Table 3Descriptive Statistics to Examine the Distribution of the Data

		5% trimmed mean	Skewness	Kurtosis	Kruksall Wallace	Shapiro Wilk
Demographic	Age	16.62	290	.886	.000	.000*
Gender Related	*Approximate number of years identified as current gender	3.72	1.737	4.086	.000	.000*
Self-Compassion Scale	Total SCS	2.25	.628	1.218	.200	.114
Intolerance of Uncertainty Scale for Children	Total IUSC-12	41.39	680	.143	.001*	.010*
Revised Children's Anxiety and Depression Scale	Total RCADS 'Internalising' Score	70.04	167	376	.200	.829

Note: *Non-normal distribution

Descriptive statistics were calculated for each variable. This allowed for testing of the proposed model, whilst adjusting for demographic factors, gender-related variables, and any known confounder variables (see Figure 3) which were found to influence distress. Categorical and

dichotomous variables were described alongside the frequency and proportion (%) of respondents. Descriptive statistics were detailed for the overall sample and separately for GIDS and Community samples. Independent *t*-tests were used to explore differences between samples on demographics, gender-related variables, and standardised outcome measures. No comparative studies between clinical and community groups were known to the researcher at the time of writing. It was acknowledged there may be some differences, for example, gender diverse individuals who are hoping to access services may experience elevated levels of distress due to long waiting times. However, on the whole, gender diverse young youth across both groups are likely to face similar internal and external stressors. Thus, the overall sample were analysed together for inferential analyses. This had the added benefit of enhancing the power of the findings as subgroup analyses would have been underpowered.

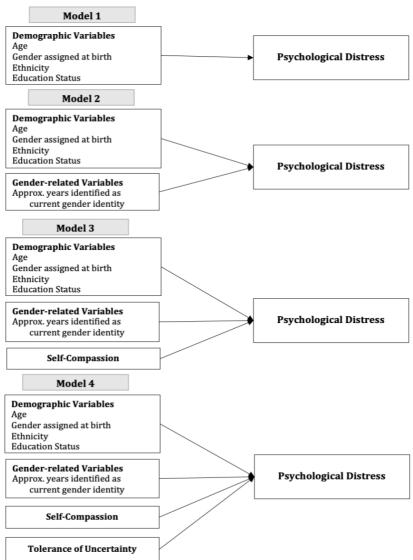
Initially correlations between the total scores for self-compassion (SCS), intolerance of uncertainty (IUSC-12) and psychological distress (RCADS) were explored using Pearson's correlation statistics. A hierarchal regression analysis was subsequently completed to test the proposed model between self-compassion and tolerance of uncertainty (predictor variables) and psychological distress (outcome variable). Entering these variables into the regression analyses first aimed to minimise the risk of Type I error. Preliminary checks established there was no multicollinearity amongst variables (Tabachnick & Fidell, 2013) using the Durbin-Watson test for independence of residuals (Field, 2013). When taking into consideration Field's other recommendations (e.g., Plots of standardised residuals, homoscedasticity, linearity, independence of errors, and absence of outliers) residual issues were not detected. To preserve statistical power, all cases were used to calculate summed scores and variances for each of the standardised measures to validate the scores of all respondents. Thus, it was noted that assumptions were validated and suitable for linear and hierarchical regression analyses with the addition of data having no multicollinearity. Whilst 8 leverage values in the hierarchical regression were between 0.2-0.5 (highest 0.34) which could be considered a mild risk of impacting on the data, as no values were above 0.5 these were not considered dangerous to the analyses and were included in the final dataset (Huber, 1981).

Four models were tested in the hierarchical regression to quantify the relationship between demographics factors, gender-related variables, and self-compassion, tolerance of uncertainty as predictors of psychological distress. Outputs from each model are presented and p values of ≤ 0.05 which were considered statistically significant.

Figure 3

Theoretical Models of Association to be Tested using a Hierarchical Regression in line with Research

Hypotheses



A follow-up mediation analysis was conducted to test the final hypothesis as self-compassion and tolerance to uncertainty were found to be significant predictors of psychological distress using the PROCESS Macro for SPSS (Hayes, 2022). Mediation analyses enabled testing of the hypothesised indirect relationships between variables. Outputs from the mediation model are presented in Table 11 and in a visual diagram Figure 4 with 95% bias-controlled confidence intervals, p-values of ≤ 0.05 were considered statistically significant.

2.11 Patient and Public Involvement

The study incorporated feedback from gender diverse youth, their caregivers and supporting services at various points throughout the project. Patient and Public involvement (PPI) is outlined in Table 4 below.

Table 4Summary of Patient and Public Involvement

Area	Involvement	Actions
Community Sample	Mermaids (LGBTQ+ charity) agreed to ask young people and their parents/caregivers to contact the Chief Investigator if they would like to be involved in a Patient and Public Involvement group to offer feedback on the research advert, PIS and Consent forms. Three young people (aged 14 – 16) and their parents/caregivers attended the PPI group. They were sent copies of the research materials ahead of the group alongside a topic guide with some questions they may be asked to consider in the group discussion. The group was held over zoom on 30th November 2020 for 1 hour. Confidentiality was discussed. All members consented to take part in the discussion and were paid for their input (£10 amazon voucher).	Feedback was largely surrounding the language used, for example, making sure information in the PIS was inclusive and appeared inviting for to those who experienced a broad range of emotional experiences in relation to their gender as individuals may find aspects of exploring or expressing their gender identity both emotionally challenging and rewarding experiences. The overall length of the PIS and wording of the adverts were advised to be shorter with less repetition. They also requested for a link to the PIS to be included on the consent form so readers could click back to the PIS to read it if necessary, before signing the consent form.
GIDS Sample	Four young people and their parents agreed to review the initial drafts of the research materials from the GIDS sample in 2018, with a view to providing feedback on the acceptability of the research design and intended materials. Recent PPI input from GIDS unfortunately could not take place as planned on 7th December 2020. Due to COVID-19 the PPI group was not meeting regularly in person and due to demands on the service following the judicial review (Bell vs. Tavistock, 2020) it was not feasible to request PPI feedback when resources were needed elsewhere to support service users.	Young people offered feedback on the language used in the materials. For example, re-wording 'what is your assigned gender' to 'what was your assigned gender at birth?'. However, a significant adaptation was made following a piece of parental feedback that young people of aged 14 may struggle to understand some of the language used in the adult tolerance to uncertainty scale. This measure was subsequently replaced with an adapted child version, which adapted the adult version to include child-appropriate language. The measure retained its strong psychometric properties.
Paid Research Associate Roles	Two research associates were paid to support the recruitment phase of the project. The role involved sharing the advert by word of mouth, to support groups, and on social media such as Facebook, Twitter, or Instagram as well as via podcasts or by emailing an accompanying link to individuals interested in participating. They were also consulted on research materials throughout the recruitment phase. They were paid (£50 Amazon voucher) for their time.	They offered feedback about the wording of the advert and advised the objectives should be stated more explicitly. Changes were made accordingly.

Chapter 3: Results

3.1 Demographic and Gender-related Characteristics of Overall Sample

Between September 2021 and May 2022, a total of 79 gender diverse young people completed the online survey. One participant did not complete the item which asked them for their assigned gender at birth. This was required to score the dependent variable; therefore, participant data was removed from the sample. Participants were aged between 14-18 (M=16.59, SD=0.84) years old. As presented in Table 5, there were more participants who were assigned female at birth (79.5%) than assigned male at birth (20.5%). Participants were predominantly white. Most participants were in full time education, and 9% were not. The most frequently occurring gender identity identifying as male (47%). Some participants reported identifying as multiple gender identities (16.7%), reporting between two and six gender descriptors. Participants had identified as their current gender between 0-18 years (M=4.08, SD=3.5) when rounded to the closest year, with some reporting they had identified with their current gender identity their whole lives. The shortest length of time was 7 weeks. The majority of participants (93.6%) had made a social transition.

 Table 5

 Characteristics of Overall Sample

0 1 01 1 11	All (N. EO)
Sample Characteristics	All (N=78)
Age	
Min-Max	14-18
Mean (SD)	16.6 (0.8)
Assigned Gender at Birth (%)	
Female	62 (79.5)
Male	16 (20.5)
Ethnicity (%)	
White	74 (94.9)
Mixed/Multiple ethnic groups	4 (5.1)
Education Status (%)	
Full Time - School	23 (29.5)
Full Time – Sixth Form/College	43 (55.1)
Full Time - Other	5 (6.4)
No	7 (9.0)
Gender Identity (%)	
Agender	2 (2.6)
Demi-Boy	3 (3.8)
Demi-Fluid	1 (1.3)

Sample Characteristics	All (N=78)
Gender Identity continued (%)	
Female Genderfluid Male	11 (14.1) 1 (1.3) 37 (47.4)
Multiple (Inc. Androgyne, Demi-Agender, Demi-Girl, Demi Neutrois, Gender Neutral, Grey Gender, Genderqueer, Trans, Transgender)	13 (16.7)
No Label	1(1.3)
Non-Binary	7 (9.0)
Trans Masculine/Transmasc	1 (1.3)
Trans Feminine	1 (1.3)
Approximate Number of Years Identified as Current Gender	
Min-Max	0-18
Mean (SD)	4.1 (3.5)
Social Transition (%)	
Yes	73 (93.6)
No	5 (6.4)

Note: Due to small numbers for those who had not socially transitioned, this prevented any further statistical analysis.

3.2 Social Transition: Content Analysis

Open text qualitative information about respondents' experiences of their social transition was analysed using inductive content analysis to contextualise the sample with regards to their social transition status (Erlingsson & Brysiewicz, 2017). Each response was broken up into words or key phrases, grouped and quantified in excel. Explicit terms were tallied (e.g., "changed pronouns"). Implicit terms or longer phrases required an element of interpretation (e.g., experiences of cruelty or bullying as a result of their gender identity was grouped as "experiences of transphobia" to identify common themes between meaning units. As there were no predefined categories or concepts, information was grouped according to frequency. Resulting codes and categories are summarised in Table 6 below. All codes and categories were retained for transparency and credibility checks were carried out with the supervisory team as detailed above. Examples of key phrases from respondents are detailed to ensure the perspectives of participants are accurately represented. Any identifiable details were removed to preserve anonymity.

Five main categories were identified: 1. Changes to key identifiers, 2. "Coming out", 3. Positive aspects of socially transitioning, 4. Responses from others, and 5. Changes associated with gender expression. The frequency of responses is presented alongside the percentage for each code.

Table 6Frequency of categories and codes generated from an inductive content analysis.

Main Category		Code	Frequency (<i>n</i> = 70)	Percentage %	
1.	Changes to key identifiers				
		Name change	43	61.4	
		Changes to pronouns	38	54.2	
		Changes to passport or other records	2	2.9	
2.	"Coming out"				
		Shared with friends	18	25.7	
		Shared with family	13	18.6	
		Shared with school	6	8.6	
		Shared with everyone	8	11.4	
		Always lived this way	3	4.3	
		Wary of sharing with certain people	7	10	
		Coming out to new people	2	2.9	
		Not "fully" transitioned yet	3	4.3	
		Timed with transition to high school	1	1.4	
3.	Positive aspects of socially transitioning				
		Freedom to be myself	8	11.4	
		Boundaries and assertiveness	3	4.3	
		Developed resilience	1	1.4	
		Built new relationships	1	1.4	
		Experienced less gender dysphoria	1	1.4	
4.	Responses from others				
		Acceptance	9	12.9	
		Period of adjustment	5	7.1	
		Loss of relationships	3	4.3	
		Experiences of transphobia	4	5.7	
5.	Changes associated with appearance or gender roles				
		Changes to outward appearance (e.g., hair, clothing)	27	38.6	
		Living in stealth or passing	3	4.3	
		Changed sports team	2	2.9	
		Medical treatment	1	1.4	

1. Changes to key identifiers. Most participants documented changes to key identifiers. Most respondents (61.4%) reported changing their name in some capacity, with 11 respondents changing their name legally or by deed poll. Over half of the respondents (54.2%) said they altered they pronouns when they socially transitioned. A further two respondents (2.9%) reported changing their passport or medical records.

- 2. Experiences associated with "Coming out". Experiences associated with "Coming out" or sharing their gender identity with others was frequently referred to, ranging from sharing this with friends (25.7%), family (18.6%), school (8.6%) or everyone they knew (11.4%). A few participants (4.3%) reported they had always lived as their current gender identity, so didn't necessarily "come out". A small proportion of respondents (10%) reported they were wary of sharing their identity with certain people or in certain environments (e.g., older family members, school, work). Three respondents (4.3%) said they had not socially transitioned "fully" yet as there were certain environments, they were not expressing their gender identity.
- 3. Positive aspects of socially transitioning. A number of positive factors associated with socially transitioning were reported. Positive aspects included freedom to be themselves (11.4%) and maintaining boundaries or skills in assertiveness (4.3%). A small number of respondents also reported developing resilience (1.4%), building new relationships (1.4%) and experiencing less gender dysphoria (1.4%).
- **4. Responses from others.** How other people responded to social transitions was frequently referred to. The most commonly occurring code was being acceptance of others (12.9%). Some respondents noted people around them needed a period of adjustment (7.1%). A small number of respondents reported socially transitioning was associated with losing relationships (4.3%) and exposure to transphobia (5.7%).
- **5. Changes associated with gender expression.** The most frequently reported change associated with gender express was changes to outward appearance (38.6%) in some way, for example changing style of clothing or hair. A few participants commented on passing or stealth in society (4.3%). Two people (2.9%) said they had changed their sports team to align with their gender identity.

3.3 Characteristics for Different Samples

Group sizes were unequal as there were 43 (55.1%) respondents in the community sample and 35 respondents (44.9%) in the GIDS sample. Due to risk of type 1 error when running comparisons for group means, a Bonferroni correction was applied and an adjusted p value of \leq 0.005 was considered statistically significant.

Table 7 Descriptive Data for Participant Characteristics and Standardised Measures for Total Sample and Community and GIDS Sample Noting any Significant Differences.

Variables	Level	All (N=78)	Community (n=43)	GIDS (n=35)	P Value
Demographic variables					
Age	Min-Max	14-18	16-18	14-18	.924c
	Mean (SD)	16.6 (0.8)	16.6 (0.7)	16.6 (1.0)	
Assigned Gender at Birth (%)	Female	62 (79.5)	34 (79.1)	28 (80.0)	.919a
	Male	16 (20.5)	9 (20.9)	7 (20.0)	
Ethnicity (%)	White	74 (94.9)	41 (95.3)	33 (94.3)	.832a
	Mixed/Multiple Ethnic Groups	4 (5.1)	2 (4.7)	2 (5.7)	
Accessing Fulltime Education/Employment (%)	Yes	71 (91.0)	38 (88.4)	33 (94.3)	
	No	7 (9.0)	5 (11.6)	2 (5.7)	.310b
Gender-Related Variables					
Approx. years as gender identity	Min-Max	0-18	0-16	0-18	
	Mean (SD)	4.0 (3.5)	2.5 (2.7)	6.1 (3.8)	<.001c*
Social Transition	Yes	73 (93.6)	38 (88.4)	35 (100.0)	
	No	5 (6.4)	5 (11.6)	0 (0.0)	0.061b
Standardised measures					
Self-compassion Scale Total Score	Min-Max	1.2-4.1	1.3-3.1	1.2-4.1	
	Mean (SD)	2.3 (0.5)	2.2 (0.4)	2.4 (0.6)	.141d
Intolerance of Uncertainty Scale for Children Total Score	Min-Max	15-60	25-58	15-60	
	Mean (SD)	41 (9.9)	43.5 (7.1)	37.9 (12.0)	.019d
Revised Children's Anxiety and Depression Scale Total Score	Min-Max	33-102	52-102	33-88	
	Mean (SD)	69.9 (14.9)	75.0 (13.1)	63.7 (14.9)	.001c*
Social Responsiveness Scale 2nd Edition Total score			n=19	n=23	
	Min-Max	42=90	50-90	42-90	
	Mean (SD)	72.2 (15.7)	76.0 (13.5)	61.3 (13.4)	0.001c*

^a p values were derived from Pearson's Chi-Square tests. b p values were derived from Fisher's exact test (2 x c) where expected cell count is less than five (two-sided).

c *p* values were derived from independent *t*-tests (two-tailed)

d p values were derived from independent Welch t-test as the assumption of equal variances was violated (p<0.05).

^{*}p <.001 (2-tailed) Bonferroni corrected.

As shown in Table 7, these findings indicate that groups presented similarly across most demographic, gender-related and standardised outcomes. However, there were some key differences. Participants in the community sample had identified as their current gender for shorter periods of time when comparing the mean number of year that they had identified as their current gender identity. Whilst statistical analysis between gender identity descriptors could not be completed, there appeared to be some observable differences between groups. A broader range of gender identity descriptors was observed in the community sample. Most participants in the GIDS sample reported identifying as either male or female (82.8%) whereas in the community sample this was reported in less than half of the sample (44.2%). Though these differences between gender identity were not tested statistically, this could be conceptualised as greater gender fluidity or non-binary identities withing the community sample. All of the GIDS sample reported they had socially transitioned, whereas in the community sample five respondents had not. With the expected cell count being less than five within this analyses, a Fisher's exact test (2 x c) was conducted. Differences between proportions of social transition status were approaching statistical significance (p = .061, two-tailed).

Mean scores for intolerance of uncertainty were elevated in the community sample but were not statistically significant and levels of psychological distress were significantly higher for the community group than for those accessing GIDS. Scores on the SRS-2 were also significantly higher in the community sample than the GIDS sample for those who completed this measure (n=42), however, due to poor data quality on this item, the SRS-2 was not included in any further analysis.

3.4 Descriptive Statistics for Psychological Distress between Groups and Overall Sample

RCADS cut off points were used to compare scores to clinical norms for young people of similar ages in the general population for the overall sample and across groups. The measure categorises levels of distress into different qualitative descriptors which are summarised in Table 8 below. A *t*-score of 65 indicates the score is likely to fall within the top 7% of scores from unreferred CYP the same age. The developer termed this range 'borderline clinical', but this category is now more commonly described as 'raised score' (Child Outcome Research Consortium, 2018). A score of 70 or over is described as the 'clinical threshold' by the developer and scores represent the top 2% of scores for unreferred CYP. This is now more commonly reported as 'High Score' (CORC, 2018).

Within the overall sample 53.8% of respondents were in the 'high range', 11.5% were in the 'raised range', and 34.6% were in the 'normal range'. A chi-square test of independence was

conducted between the GIDS and community groups to explore the clinical thresholds on the RCADS and identify if there were any significant differences. The outcomes are presented in Table 7 below. One expected cell frequency was less than five, however 80% of cells had an expected count that was greater than or equal to five, so the analyses was completed. There was a statistically significant association between the type of sample and clinical thresholds ((χ^2 (2, 78) = 8.475, p=.014)). A significantly higher proportion of participants in the community group were above the clinical threshold in the 'high score' range (62.8%) in comparison to the GIDS group (42.8%). The majority of the GIDS sample scored within normal range (51.4%) in comparison to the community group (20.9%).

Table 8Descriptive Data for Clinical Threshold Descriptors on the Total Internalising score for the Community and GIDS sample

	Normal range	Raised Score	High Score
Community (n=43)	9 (20.9%)	7 (16.3%)	27 (62.8%)
GIDS (<i>n</i> =35)	18 (51.4%)	2 (5.7%)	15 (42.9%)

In sum, those accessing clinical services experienced significantly less distress in comparison to those who were not accessing clinical services. As cut off points or clinical norms are not available for the self-compassion scale or the intolerance of uncertainty scale, comparisons were made using overall scores.

Though there were some differences between the Community and GIDS sample in terms of psychological distress, both groups represent gender diverse young people and did not differ significantly on other key variables. Generally, this indicated a level of homogeneity on demographic details and predictor variables. Hereafter, analyses was completed with the total sample including both community and GIDS groups. Due to the small sample size this also enhanced the power of overall findings as subgroup analyses would have been underpowered.

3.5 Social Communication and Interaction Difficulties

Over half of the sample (n=42) completed the parent-rated measure to explore social communication and interaction skills which was included to incorporate into the analysis as a potential covariate. On average, participants' scores were within the range indicating 'moderate difficulties' (M= 72.2, SD=15.67). On average, participants accessing GIDS were reported to present with 'mild difficulties' (M=61.26, SD=13.37). Difficulties were significantly lower than the

community group who scored within the 'severe range' (75.95, 13.25). Scores were significantly higher in the current cohort in comparison to the normative sample of young people in the United States (cis-females, M= 29.0, SD = 23.7; cis-males, M= 33.6, SD = 25.2, Constantino & Gruber, 2012) and a sample in Northeast England (cis males, M = 32, SD = 17.1; cis females, M= 27.7, SD = 15.9; Wigham et al., 2012). Scores from the current GIDS sample were comparable to findings from Russell et al's, (2020) cohort of young people of a similar age accessing GIDS. A key limitation is that the data was from a sub sample, as the return rate was low, and there is still contention surrounding whether the SRS-2 reflects social communication and interaction difficulties, or whether it is more reflective of gender-related distress. Thus, the measure was excluded from subsequent analysis due to poor data quality.

3.6 Bivariate and Point-biserial Analyses of Demographic and Gender Related Variables, Self-compassion, Tolerance of Uncertainty and Psychological Distress

A point-biserial correlation and bivariate correlations were run between demographic variables, and total scores for self-compassion, tolerance of uncertainty and psychological distress. Data are mean ± standard deviation with associated bias corrected confidence intervals. There were statistically significant relationships between the following variables: education/employment status with psychological distress, self-compassion with tolerance of uncertainty, self-compassion with psychological distress, and tolerance of uncertainty with psychological distress. Those who were in full time education or employment experienced less distress than those who were not, with a medium effect. All relationships between selfcompassion, tolerance of uncertainty and psychological distress were in the hypothesised directions (Table 9) and effects were large. As education status was found to be significantly correlated with the dependent variable (psychological distress) this was controlled for as a covariate in subsequent analyses. Further descriptive statistics revealed that those who were not in full time education or employment experienced higher levels of distress (M = 81.43, SD = 11.06) in comparison to those who did not (*M*=68.8, *SD*=14.84). However, these groups did not differ significantly in any other demographic areas or in relation to self-compassion or tolerance of uncertainty. There were no statistically significant relationships between any of the genderrelated variables and psychological distress.

 Table 9

 Bivariate Analyses (Bca 95% CIs) between Demographics, Gender-related Variables, Self-compassion, Tolerance of Uncertainty and Psychological Distress (N=78)

	Age	Assigned Gender at Birth	Ethnicity	Education/ Employment Status	Years as Current Gender Identity	SCS Total Score	IUSC-12 Total Score	RCADS Total Score
Age	-	0.06 (20, .28)	.18 (08, .39)	06 (21, .34)	06 (32, .23)	.03 (24, .30)	.03 (19, .26)	15 (37, .06)
Assigned Gender at Birth		-	.17 (12, .47)	.06 (35, .16)	.04 (22, .30)	05 (24, 156)	13 (32, .06)	.21 (04, .41)
Ethnicity			-	.07 (.03, .11)	.16 (11, .44)	10 (30, .12)	16 (39, .05)	.04 (03, .11)
Education/ Employment Status				-	.03 (20, .22)	<.01 (22, .17)	09 (25, 0.08)	24* (43,06)
Years as Current Gender Identity					-	<01 (21, .29)	08 (37, .16)	15 (33, .05)
SCS Total Score						-	51** (68,28)	50** (67,21)
IUSC-12 Total Score							-	.56** (.38, .70)
RCADS Total Score								-

Italics= point biserial Pearson's correlations

Standardised Measures: SCS (Self-compassion Scale), IUSC-12 (Intolerance of Uncertainty Scale for Children), RCADS (Revised Children's Anxiety and Depression Scale).

^{**}p <.01 (2-tailed); *p <.05 (2-tailed)

Bca 95% bootstrapped CI (bias corrected and accelerated r value 95% confidence intervals with 1000 samples)

3.7 Test of Model fit: Self-compassion and Tolerance of Uncertainty as a Predictor of Psychological Distress

The full model of age, gender assigned at birth, education status, ethnicity, number of years identified as current gender, self-compassion, and tolerance of uncertainty to predict psychological distress (Model 4) as detailed in Table 10 was highly significant, $R^2 = .510$, F(7,70) = 10.428, p < .001; adjusted $R^2 = .462$. The addition of self-compassion to the prediction of psychological distress (Model 3) led to a statistically significant increase. The addition of tolerance of uncertainty to the prediction of psychological distress (Model 4) also led to a statistically significant increase.

Table 10Hierarchical Regression Predicting Psychological Distress from Age, Gender Assigned at Birth, Ethnicity, Approximate Number of years Identified as Current Gender, Self-Compassion, and Tolerance of Uncertainty

		Psychological Distress (RCADS Total)						
	Model 1		Model 2		Model 3		Model 4	
	В	β	В	β	В	β	В	β
Constant	114.556***	k	119.854***		146.978***		100.305***	
Age	-2.785	157	-3.070	174	-2.676	151	-3.404*	192
Gender Assigned at Birth	7.314	.199	7.389	.201	6.789	.185	9.084*	.247
Education/Employment status	-11.666*	225	-11.431*	220	-11.355*	219	-9.225*	178
Ethnicity	3.207	.480	5.233	.078	2.050	.030	8.346	.124
Years as Current Gender Identity	-	-	733	171	716	167	620	145
Self-Compassion	-	-	-	-	-13.102***	455	-5.544	192
Tolerance of Uncertainty	-	-	-	-	-	-	.730***	.485
R^2	.122		.150		.354		.510	
F	2.541*		2.550*		6.497***		10.428***	
D <i>R</i> ²	.122		.028		.204		.156	
D F	2.541*		2.392		22.436***		22.310***	

Note. N=78 * p<.05. **p<.01. ***p<.001. **B** = unstandardised coefficients. β = standardised coefficient.

Model 1 = Age, Gender assigned at birth, Education/Employment status, Ethnicity.

Model 2 = Age, Gender assigned at birth, Education/Employment status, Ethnicity, years as current gender identity.

Model 3 = Age, Gender assigned at birth, Education/Employment status, Ethnicity, Years as current gender identity, Self-compassion.

Model 4 = Age, Gender assigned at birth, Education/Employment status, Ethnicity, Years as current gender identity, Self-compassion, Tolerance of uncertainty.

3.8 Tolerance of Uncertainty as a Mediator Variable between Self-compassion and Psychological Distress

To investigate tolerance of uncertainty as a mediator between the direct effect of self-compassion and psychological distress, a simple mediation analysis was performed using PROCESS Macro (Hayes, 2022). Bootstrapping was used as a robust analysis technique which can be applied to data which is not normally distributed. Though the formal heuristic analysis (Baron & Kenny, 1986), and the Sobel test (Sobel, 1982) were considered, bootstrapping using the SPSS macro was considered the most robust method of analyses as it tests the significance of the indirect effect and minimises bias from non-normal sampling distributions (Hayes & Scharkow, 2013). The outcome variable for analysis was psychological distress (Y). The predictor variable was self-compassion (X), and the mediator variable was tolerance of uncertainty (M). Education status was a known co-variate and was controlled for in the analyses. All assumptions were met.

3.8.1 Indirect Effect

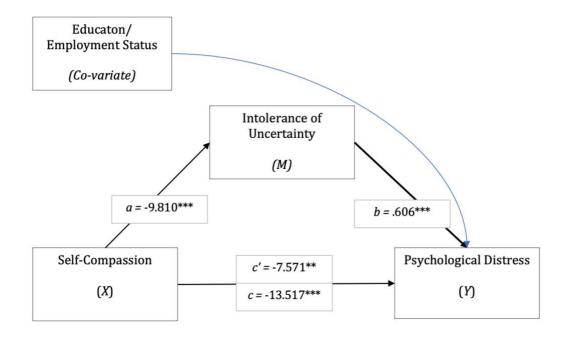
The total model of the effects of self-compassion through tolerance of uncertainty was significant, F(2, 75) = 14.42, p < .001 and explained 28.92% of the overall variance in psychological distress. Self-compassion was significantly associated with the mediator intolerance of uncertainty (a path), and intolerance of uncertainty was significantly associated with the outcome variable, psychological distress (b path; Table 11). After accounting for the indirect effects through intolerance of uncertainty (c' path), the direct effect between self-compassion and psychological distress remained significant, b = -7.57, t (75) = -2.50, p < .01. The completely standardised indirect effect was significant as the 95% confidence intervals did not pass zero (b = -0.21; 95% CI: -0.36; -0.07).

Table 11Negative Indirect Effect of Self-compassion on Psychological Distress through Intolerance of Uncertainty

Path			Indirect Effect ^a	Bootstrapped 95% CI		
	b (SE)	t		LLCI	ULCI	
$SC \rightarrow PDis(c)$	-13.52 (2.82)	-4.79***		-19.14	-7.89	
$SC \rightarrow IoU(a)$	-9.81 (1.89)	-5.19***		-13.56	-6.04	
$IoU \rightarrow PDis(b)$.61 (.16)	3.82***		0.29	0.92	
$SC \rightarrow IoU \rightarrow PDis(c')$	-7.57 (3.03)	-2.50**		-13.61	-1.53	
			21	36 ^b	07 ^b	

Note. The *b* path coefficients were all unstandardised. a = completely standardised indirect effect; b = bias corrected confidence intervals calculated using 5000 bootstraps; $^{**}p$ <.01; $^{***}p$ <.001; SC = Self-compassion; IoU = Intolerance of Uncertainty, PDis = psychological distress; LLCI = lower level confidence interval; ULCI = upper level confidence interval.

Figure 4Unstandardised Indirect Effect Path Co-coefficients of Self-compassion on Psychological Distress through Intolerance of Uncertainty. ** p < .01 ***p < .01.



Simmons *et al.* (2011), recommended conducting the analysis in the absence of any covariates, to ensure results do are not a false positive result. The indirect effect was also significant in the absence of the covariate which was Education/Employment status which was associated with psychological distress (b = -.22; 95% CI: -0.37; -0.08). As both the indirect effect

through tolerance of uncertainty (c' path), and the direct effect between self-compassion and psychological distress (c path) remained significant, this concludes partial mediation.

The c path coefficient which represents the total effect of self-compassion on psychological distress was -13.52, 95% CI [-19.33, -7.71]. The c' path which represents the direct effect of self-compassion on psychological distress through tolerance of uncertainty was -7.57, CI [-13.61, -1.53]. Given that the clinical thresholds on the RCADS indicate a difference of five points between t scores (e.g., <65: Normal range, \geq 65 Raised score, \geq 70m high score range), the magnitude of this effect was large, and suggests that cultivating one unit of self-compassion could have the potential to decrease psychological distress from above the clinical threshold to within the raised or normal range.

Chapter 4: Discussion

At the time of writing, it was recently announced by NHS England (2022) that the Tavistock and Portman NHS Foundation Trust GIDS service will not be recommissioned from spring 2023 following the Cass review (Cass, 2022). This generates yet more uncertainty for gender diverse youth and supporting services. The proposed plan suggests new regional services across the country in the coming years, in the hope that this will reduce waiting times (NHS, 2022). However, for gender diverse youth, the process of exploring gender identity still holds many of the same unknowns (e.g., How will my gender identity develop? What changes will happen to my body? How will people respond to my identity?) as well as new unknowns (e.g., What services will be available to support me? Will I have to enrol to a research programme to access the treatment I need?). Whilst the landscape of support services becomes increasingly uncertain, it is recognised that additional capacity of services is needed to meet the demand of increasing referrals, to ensure that care and support is available when needed (Cass, 2022). This further highlights the importance of having evidence-based guidelines to inform therapeutic support for those who do experience distress in relation to their gender identity, or otherwise, guiding overall service provision for gender diverse youth.

4.1 Summary of Main Findings

The aim of this study was to explore the strength of the relationships between self-compassion, tolerance of uncertainty and psychological distress in gender diverse youth. Self-compassion and tolerance of uncertainty have previously been found to predict lower levels of psychological distress in a cisgender adult sample (Deniz, 2021). Whilst some early research has begun to explore the benefits of self-compassion for gender diverse youth (e.g., Bluth et al., 2021; Canvin et al., 2022), the current thesis makes a valuable contribution to the evidence-base as the first study to explore the model of self-compassion as a predictor of lower levels of psychological distress through tolerance of uncertainty for gender diverse young people.

Levels of psychological distress were high overall, with average scores falling within the 'high range' for 53.8% of participants. This is representative of the top 2% of scores for unreferred CYP in comparison to clinical norms from the general population of adolescents (Chorpita et al., 2000). The RCADS measures forms of anxiety and depression which are the most frequently occurring mental health conditions for gender diverse youth (Holt, Skagerberg & Dunsford, 2014; Grossman & D'Augelli, 2006; McNeil et al., 2012; Kaltiala-Heino et al., 2018). Whilst the facets of anxiety and depression were not analysed individually in the current study,

self-reported symptoms on the overall internalising score were elevated, which reflects existing literature of high rates anxiety and low mood in this population.

A preliminary analysis explored differences between the GIDS and community groups. Findings identified on average, the community group reported experiencing significantly higher levels of distress. Greater difficulties with social communication and interaction were also found in the community sample in comparison to the GIDS sample, though data was only collated from 42 participants. Whilst the analysis indicated some statistically significant differences between the two groups, data was pooled for inferential analyses as both groups represent gender diverse young people and did not differ significantly on most other variables and were largely homogenous. In addition, this enhanced statistical power due to the small sample size.

The first two hypotheses were that higher levels of self-compassion and tolerance of uncertainty would both be associated with and statistically predictive of lower experiences of psychological distress. As hypothesised, bivariate cross-sectional relationships between selfcompassion and tolerance of uncertainty were negatively associated with and statistically predictive of lower levels of psychological distress in gender diverse youth with large effects. These findings support previous studies linking self-compassion to reduced distress in clinical samples (Neff, 2020; Sirois & Rowse, 2016), community samples (Bluth et al., 2015; Bluth et al., 2016; Neff & McGehee, 2010; Xavier et al., 2016), LGBTQ+ samples (Beard, Eames & Withers, 2016; Greene & Britton, 2015; Jennings & Tan, 2014) and more recently in gender diverse adults (Allan, 2017; Gorman et al., 2022; Keng & Liew, 2016; Samrock, Kleine & Randall, 2021). Findings also concurred with previous literature on higher intolerance of uncertainty being associated with psychological distress in cisgender adults (Bomyea et al., 2015; Deniz, 2021; Tang, 2019), adolescents (Boelen, Vrinsen, van Tudler, 2010; Read, Comer & Kendall, 2013; Comer & Phillip, 2013), and CYP with ASC (Comer et al., 2009). An additional finding was that education and employment status was significantly associated with psychological distress. Those who were in education or employment experienced significantly lower levels of psychological distress, with a moderate effect.

As well as being associated with psychological distress, the statistical predictive power of self-compassion and tolerance of uncertainty combined in the final model of the hierarchical regression accounted for 46.2% of the variance. Thus, the model of self-compassion and tolerance of uncertainty had significant explanatory power in predicting psychological distress in gender diverse youth in this study. Potential covariates (i.e., age, assigned gender at birth, ethnicity, education/employment status and approximate length of time as current gender identity) were

also explored. The initial model included demographic variables which significantly predicted psychological distress, due to the impact education/employment status on psychological distress. The regression supported further understanding of how much variation in psychological distress could be explained by the addition of self-compassion and tolerance of uncertainty respectively. When adding self-compassion to the model, there was a significant improvement in explanatory power on the reduction of psychological distress, explaining 20.4% of the variance. The addition of tolerance of uncertainty (as measured by the intolerance of uncertainty scale for children) again significantly improved the explanatory power, by an increase of 15.6% of the variance further supporting the hypotheses. In fact, when tolerance of uncertainty was added, this reduced the variance explained by self-compassion suggesting that the variables were related in some way, supporting the indirect effects analysis.

Self-compassion was found to predict reduced psychological distress through greater tolerance of uncertainty in gender diverse youth, which was in the hypothesised direction in the mediation analysis. Findings were supportive of the existing literature exploring these variables in adult and student community samples (Deniz, 2021; Tang, 2019; Woo & Hyun, 2020). This relationship demonstrated partial mediation. Findings from the present study inform our understanding of the protective function of trait self-compassion for gender diverse youth and though the study was cross-sectional, it does indicate a potentially meaningful relationship. This may suggest that cultivating self-compassion in this population could enhance their capacity to tolerate uncertainty in the face of adversity and reduce experiences of distress. However, further clarification of the utility of self-compassion and tolerance of uncertainty is warranted using prospective designs.

4.2 Theoretical Implications of Understanding Self-compassion and Psychological Distress through Tolerance of Uncertainty

This study explored the relationships between self-compassion, tolerance of uncertainty and psychological distress for gender diverse individuals at a significant time in their lives, when navigating the emotional challenges of adolescence and transition. For gender diverse CYP this period is often characterised by multiple transitions, and uncertain trajectories relating to exploring and expressing their gender identity. This can lead to a range of liberating opportunities as well as challenges, particularly in the current socio-political climate which is becoming increasingly polarised in the UK and in the context of long waiting times to access support services. This study evidenced gender diverse individuals with self-compassionate mindsets reported greater tolerance of uncertainty and reduced levels of distress. This suggests that higher

levels of trait-self compassion could support gender diverse youth navigate this transformative period with greater ease and less distress.

Self-compassion has been evidenced to support adult populations remain mindfully attuned in the present moment in adverse situations, rather than being self-critical or judgemental (Neff, 2003b). Gender diverse CYP who have higher trait Self-Compassion may have been more able to approach adverse situations in a kind and balanced way and deflect potential judgment or prejudice of others instead of internalising this connecting with their identity as found in adult samples (Gorman et al., 2022). They may have also felt connected with others from the community, as opposed to being isolated, and able to view their experiences as collective, which enhanced a sense of common humanity which can be fundamental in reducing distress in gender diverse youth (Bluth et al., 2021). Theoretically, gender diverse individuals who are able to be more self-compassionate may also have better insight into their distress, and on recognising this, respond to themselves with kindness, warmth and interconnectedness (Neff, 2009).

There is a wealth of evidence to suggest uncertainty can evoke distress (e.g., Boelen, Vrissen, van Tudler, 2010; Comer et al., 2007). For some, conceptualising their experiences of being gender diverse can be challenging in a society where young people are often socialised within binary norms (Di Ceglie, 2014). This may generate distress and exacerbate a context of uncertainty associated with 'coming out', 'passing' in the eyes of others, wondering if or when they will access treatment, or whether they will be safe in the country they live in. This study found those who reported greater tolerance of uncertainty experienced significantly less distress, which is supportive of the literature in cisgender adolescents (Comer et al., 2009) and neurodiverse populations (e.g., Boutler, Freeston & Rogers, 2014). This suggests that similar theoretical links between tolerance of uncertainty and reduced distress extend across the gender spectrum and cultivating tolerance of uncertainty alone or through self-compassion could be especially helpful for gender diverse youth.

Self-compassion can foster self-acceptance and support individuals to remain mindfully attuned in the present moment, rather than worrying about the past or the future which can strengthen tolerance of uncertainty (Deniz, 2021; Tang, 2019). From a place of acceptance, CYP in the present study may have been more equipped to appraise and respond to adversity during an important time in their lives when they are exploring or expressing their gender identity. This is also supportive of other research where self-compassion was found to enhance tolerance of uncertainty as it supports individuals to appraise situations in a balanced way, distancing themselves from shame or guilt (Neely et al., 2009; Terry & Leary, 2011).

As the literature suggests, approaching uncertain situations with a compassionate mindset of curiosity and self-kindness, as well as interconnectedness likely resulted in reduced levels of distress in the present study. Some suggest the potential mechanisms of change linking variables together could be related to individuals adopting an open and accepting mindset in adverse circumstances (Leary et al., 2007; Neff, 2003a; Tang, 2019). In addition to this, adopting a mindset which acknowledges human fallibilities are a common part of our experience underpins how self-compassion has the potential to increase capacity to tolerate uncertainty and reduce distress This further supports that self-compassion has a protective function which helps to reduce the impact of potential stressors gender diverse young people may face as a minoritised group (Greene & Britton, 2015; Jennings & Tan, 2014).

The study outcomes further demonstrate how self-compassion is a robust negative predictor of psychological distress (Neff, 2006; Neff et al., 2007a; Neff et al., 2007b) and is a protective trait for gender diverse youth. Though exploring the different facets of self-compassion was not possible in the present study due to the small sample size, other studies found that even when controlling for the negative subscales on the self-compassion scale (e.g., self-criticism, isolation), self-compassion was found to have predictive power in buffering against psychological distress (Samrock, Kline & Randall, 2021).

Gilbert's three systems model (2005) proposes three main emotion systems which are interrelated and regulate one another. This framework is used below to help understand the potential therapeutic mechanisms underpinning the results. This could guide further empirical research to explore these theoretical links and enhance our understanding of the utility of self-compassion in influencing these regulatory systems to better tolerate uncertainty and reduce experiences of distress.

4.2.1 Three Systems Model (Gilbert, 2005)

Threat Protection System. The threat protection system helps to identify actual or perceived threats from internal or external stimuli (Gilbert, 2005). This can trigger a survival response (e.g., fight, flight, freeze, submit) with the aim of protection and seeking safety (Gilbert, 2005). This system is often associated with anxiety and shame which are known to be high for gender diverse populations (e.g., Holt, Skagerberg & Dunsford, 2014). Overall psychological distress was high for this sample, which is often understood in the context of the minority stress hypotheses for gender diverse youth (Hendricks & Testa, 2012). Three key processes

contributing to minority stress which could trigger the threat system. These include environmental events (e.g., developmental trauma, bullying, cisgenderism), the anticipation of these events (e.g., fear of being hurt or rejected, anticipation of abuse), and proximal factors such as societal prejudices which are internalised (e.g., internalised transphobia). Proximal factors often manifest as shame and self-criticism and can have the greatest impact gender diverse youth (Greene & Britton, 2015; De Vries et al., 2010; Hendricks & Testa, 2012). The functionality of shame is often to withdraw or hide, which can be protective from threats or rejection from others, however, when we are disconnected or isolated this can exacerbate experiences of shame and increases experiences of anxiety and depression (Gilbert, 2011). Capacity to tolerate uncertainty from a place of feeling unsafe is likely reduced and can lead to threat-based responses such as self-criticism, rumination, avoidance, or hypervigilance in order to keep safe (Gilbert, 2009). Considered together, it is understandable psychological distress was disproportionally high in the present study as chances of exposure to external threats, such as minority stressors or internal cues which could include changes to their bodies during adolescence, are much higher for this population (Hendricks & Testa, 2012).

Drive System. Gilbert (2005) suggests that the drive system motivates individuals to seek resources in order to pursue desired goals and is often associated with feelings of anticipation and excitement. In the current sample, those who experienced lower levels of self-compassion were less able to tolerate uncertainty. As measured by the IUSC-12, participants reported that they had a greater tendency to react negatively on an emotional, cognitive, or behavioural level, which is supportive of Hillain et al's (2007) model. Hillain et al. (2007) suggest that in context of uncertainty, individuals may be driven to seek certainty or avoid uncertain contexts to keep safe from actual or perceived dangers. Though coping behaviours were not explicitly measured, it is possible those experiencing low tolerance of uncertainty were drawn to engage in these coping behaviours. Responding to uncertainty in this way exacerbates anxiety and increases isolation as it can limit opportunities to connect with others, engage in meaningful activities, and often correlates with low mood (Heimburg, 2002; Veale et al., 2008). Conversely, individuals with higher levels of self-compassion reported that they were better able to tolerate uncertainty and were more likely to access helpful approaches to thinking, feeling, and responding in uncertain situations as measured by IUSC-12. This supports the theory that those who are selfcompassionate are more likely to have an open and accepting stance towards themselves and the world. Thus, they may be more able to approach situations with curiosity, as self-compassionate individuals tend to be more intrinsically motivated, and less fearful of failure in adverse situations (Neff et al, 2005; Neff, 2007). Thus, participants may have been more able to manage proximal stressors, such as internalised transphobia in other ways. For example, utilising activism and selfaffirmation in response to social adversity helped engender a sense of optimism and purpose having positively impacted on their future (Jones & Hillier, 2013).

Soothing System. The soothing system is theorised to regulate distress and promote bonding (Gilbert, 2005). This system down-regulates the threat and drive system in order to recover and relax when other systems have been active. Feelings of contentment, safety and trust can inform capacity to give and receive care from others. Those who have higher levels of trait self-compassion are said to have greater access to their soothing system in order to regulate distress, which could offer a way of understanding why self-compassion reduced experiences of psychological distress through tolerance of uncertainty in the current sample. Trait selfcompassion has a soothing effect on stress reactions (Svendsen et al., 2016). Regulating difficult emotions can be more challenging in the context of uncertainty (Deniz, 2021; Tang, 2019; Satici, Saricali, Satici & Griffiths, 2020). However, when individuals feel safe, they reportedly have greater psychological and behavioural flexibility (Gilbert, 2009; Thayer & Lane, 2000). This may have enabled participants to be more accepting of the uncertainty they face, recognise their experiences as part of common humanity (Neff, 2003b) and appraising situations in a balanced way which distances themselves from shame or guilt (Neely et al., 2009; Terry & Leary, 2011). Gender diverse individuals who have a self-compassionate mindset may be more able to view themselves from a lens of emotional safety which is helpful when navigating any changes to their bodies as they progress through puberty, transitioning socially, or negotiating complex decisions regarding physical aspects of transition if they choose to pursue this (Charlton, Charlsey & Matthews, 2019). Those who had higher levels of trait self-compassion may have been more likely to appraise themselves with accuracy rather than being self-deprecating or self-enhancing (Leary et al., 2007).

Mechanisms of stress-reduction within this system include holding a sense of belonging, acceptance, and feeling listened to and validated, in order to regulate distress which are often associated with well-being amongst LGBTQ+ communities (Riggle & Rostosky, 2012; Riggle et al., 2012; Gorman et al., 2022). This system is supportive of some of the positive common attributes identified within gender diverse communities, which include positive self-identity, strong sense of self, sense of belonging, being a role model for others and holding greater empathy for others in the context of social justice (Almario, Riggle & Rotosky, 2013; Russel & Pollit, 2012). These attributes have caring and supportive qualities, which include positive early attachment experiences of being soothed by caregivers which can reduce experiences of distress (Gilbert, 2009).

Of note, a self-compassionate path is not always the easiest route to well-being (Neff, 2007). Seeking pleasure or trying to avoid pain can lead to thinking and behaving in ways that can reduce distress temporarily but also have the potential to cause harm (e.g., avoiding situations, alcohol use or drugs, self-harm (Budge et al., 2018; Canvin et al., 2022; Neff, 2006). Being self-compassionate can often be more challenging, requiring greater effort or resource (e.g., contextualising a difficult experience, being assertive in order to maintain boundaries in a relationship), however, this can ultimately be more rewarding in order to achieve well-being (Neff, 2006). These findings do not suggest that certain gender diverse people are better at managing distress than others, but that those who naturally have a more self-compassionate mindset report reacting more positively in uncertain contexts and experience reduced distress. Conversely adopting a critical mindset may lead to the use of more threat-based responses which could in turn exacerbate the distress they experience.

In sum, the mechanisms underpinning the relationship between self-compassion and tolerance of uncertainty are likely to be similar to other populations in terms of their impact on psychological distress. In addition, research on whether trait self-compassion informs the way that gender diverse youth to cope with adversity in practice, could determine whether this could buffer against experiences of psychological distress. Early anecdotal evidence observed in gender diverse young people from GIDS, suggests self-compassion focused approaches could lead to positive ways of coping (Canvin et al., 2022). However, the benefits of trait self-compassion, tolerance of uncertainty the impact they have on ways of coping needs testing further empirically.

4.3 Implications for Clinical Practice

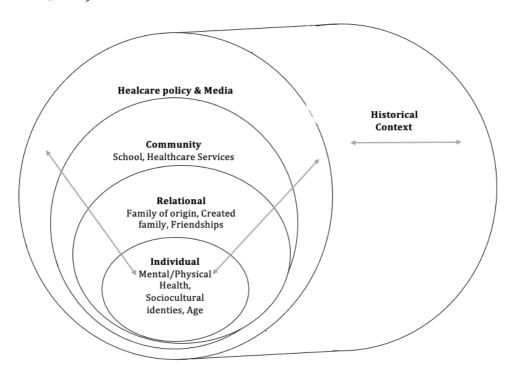
Trait self-compassion was linked to greater tolerance of uncertainty and reduced psychological distress for gender diverse young people. Both constructs can be naturally occurring as well as modifiable traits, which suggests that cultivating self-compassion could increase tolerance of uncertainty and reduce distress. As such, ways of cultivating self-compassion should be considered for gender diverse young people who are experiencing psychological distress, as well as adolescents more broadly.

A number of implications for clinical practice arose from the current study. Bronfenbrenner's Ecological Systems Theory (2005) suggests individuals are embedded within a wider context made up of several systems which are interconnected either directly or indirectly. Conversations between these systems inform human development. Systems comprise of the microsystem (i.e., interactions with school, health services, family) the mesosystem (i.e., relationships between groups involved in the microsystem), the macrosystem (i.e., cultural

elements or ideologies), and the chronosystem (i.e., environmental changes, life transitions or historical events). Edwards, Goodwin and Neumann (2019) expand on this theory applying systemic ideas to working with unique resiliencies and difficulties experienced by gender diverse individuals in a systemic context using an ecological framework. Gender inclusive clinical implications of study findings are structured using the relevant components of this model (i.e., dimensions of the individual, relational system, organisational systems, healthcare policy and media) to consider how to support gender diverse youth to utilise or cultivate self-compassion and tolerance of uncertainty. Demographic information from the sample is also considered in the context of the literature.

Figure 5

Adapted Ecological Framework for Gender Diverse Inclusive Practice (Edwards, Goodwin & Neumann, 2019).



4.3.1 Individual Dimensions

Edwards, Goodwin and Neumann (2019) incorporated viewing individuals through an intersectional lens, considering different dimensions including socio-cultural identities (e.g., age, gender identity, ethnicity), access to resources, and individual well-being (Crenshaw, 1989).

There were more participants who were assigned female at birth (79.5%) than assigned male at birth (20.5%) which largely concurred with the existing literature (De Graaf, Giovanardi,

Zitz & Carmichael, 2018). The majority of participants in the current study (47%) reported identifying as male, 14.1% as female, and 9% as non-binary, which is corroborated by recent research (Trans20, 2019). Some participants reported identifying as multiple gender identities (16.7%), reporting between two and six gender descriptors, and it is important to consider the multiplicity and fluidity of gender identity beyond binary.

Most participants were white (94.9%) with only 5.1% of respondents being from multiple ethnic groups. This is slightly lower, but not dissimilar, to Stonewell's most recent survey (2018) where 9% of the sample were from a minoritised ethnic group. Whilst there were no significant associations between ethnicity and key variables in the current study, it is still important to consider experiences of psychological distress and access to resources can be more limited when someone's identity is characterised by multiple marginalised groups (Meyer, 1995). Thus, an intersectional lens should be applied for anyone supporting gender diverse youth, whilst considering power dynamics and privilege within these relationships (Edwards, Goodwin & Neumann, 2019)

Findings also support previous literature suggesting that there is an overrepresentation of social communication difficulties in gender diverse youth (Constantino & Gruber 2012; Russell et al., 2020; Wigham et al., 2012). Young people in the community experienced significantly higher social communication difficulties and higher distress in comparison to those accessing GIDS. This supports the notion that SRS-2 scores may be reflective of distress in gender diverse youth rather than ASC (Skagerberg, Ceglie & Carmichael, 2015). Either way, this finding highlights a necessity to consider psychosocial support for young people accessing clinical or community services. In line with recommendations from Russell et al., (2020) early screening for ASC could be helpful for those presenting with social communication difficulties if this is sought by families, thought this approach may not be helpful for everyone. This could lead to helpful discussions in order to tailor support to individual need.

At the heart of the individual system is consideration of psychological well-being. There are gaps in the current model, and it is difficult to determine with any certainty why some young people had higher levels of self-compassion and tolerance of uncertainty than others. Personal construct theory (Kelly, 2003) could offer an explanation as to why some individuals may develop a more or less self-compassionate mindset. Personal construct theory proposes that individuals draw on experiences of care and important life events to create personal constructs about themselves, others and the world. When we consider that gender diverse youth are more likely to experience early developmental or relational trauma, stigma, or abuse (e.g., Clements-Nolle,

Kozlowska et al., 2021; Marx & Katz, 2006), this could indicate some individuals are more likely to be critical of themselves and respond to themselves in ways which could be detrimental to their own well-being. Collecting information about experiences of care in future research could support our understanding of why some individuals were able to be more self-compassionate than others to inform clinical practice in this area.

Some individuals may try to draw on protective coping mechanisms, such as contacting support services to manage their distress, yet the resources available to gender diverse CYP may be less available due to structural inequalities (e.g., Bowleg, 2020). Other factors may influence the distress experienced, such as poorer access to health care, mental health support, lack of environmental safety, and potentially inconsistent caregiving from family and the wider systems around them (D'Augelli & Grossman, 2008). However, it is important not to presume the distress experienced by the current sample is directly related to their gender identity or minority stresses as many cisgender young people experience elevated levels of distress in adolescence (Bluth et al., 2016). In addition, there were other factors beyond self-compassion or tolerance of uncertainty that lead to reduced distress, as 49% of the variance was unexplained by the final regression model and were beyond the scope of this project.

4.3.2 Relational System

The relational system includes interpersonal relationships with family of origin, created or chosen family, and friendships (Edwards, Goodwin & Neumann, 2019). Details about these relationships were not collated from young people within the survey. However, attachment models predict that experiences of acceptance in childhood can cultivate the development of selfcompassion, as we learn from others how to treat ourselves (Gilbert, 2009). Cultivating selfcompassion in childhood nurtured a sense of connectedness, understanding, and comfort, which supported gender diverse groups to cope with emotional challenges and facilitated happiness in adulthood (Greene & Britton, 2015). Thus, it is important to consider how these relationships may be operating in the lives of gender diverse individuals as close and accepting relationships likely foster self-compassion, whereas rejecting and critical relationships likely foster experiences of self-criticism and shame, which is detrimental to well-being. Kuvalanka et al., (2014) noted the bidirectionality of the relational system, as there is often resiliency in families with gender diverse children who positively influence communities around them. In return young people receive warmth and acceptance which enhances a sense of belonging and interconnectedness, both of which are key components to cultivating self-compassion in gender diverse youth. The benefits of friendships and a sense of 'in-group' connection to gender diverse

communities are also reported to be a strong predicter of well-being and self-compassion (e.g., Singh & McKleroy, 2011). These relationships may be of greater importance to young people who have experienced rejection or abuse from their family of origin. Social support has also consistently been found to buffer against the impact of distress.

Together, family support, friendships, connectedness, and how they interact, and influence well-being have been found to be highly correlated with reduced symptoms of depression and anxiety (Puckett et al., 2019). Exploration of these relationships could aid identification of sources of support to draw on (if lacking) for the young person in line with their goals (e.g., connections with LGBTQ+ communities, direction for parents to family support groups etc.). This could enhance opportunities to receive compassion and acceptance from others, which is linked to greater tolerance of uncertainty and well-being.

It is important to consider everyone's unique journey through gender exploration and expression and hold in mind sources of support around them. Gaining a better understanding of experiences of care and exposure to kindness and empathy for gender diverse young people can help gain a sense of opportunities they have had to develop self-compassion and better tolerate uncertainty in the context of support available to them. If those supporting young people can model self-compassion, and adopt a warm and compassionate approach, this will likely enhance trait self-compassion, subsequently increasing tolerance of uncertainty and reducing experiences of distress.

4.3.3 Community System

Community systems include services from the local community, including places of employment, school, mental and physical health care services, and legal services (Edwards, Goodwin & Neumann, 2019). It is important to consider how services can facilitate meaningful engagement, through acceptance and non-judgmental and anti-oppressive practice, whilst holding an awareness of World Professional Association of Transgender Health standards of care (2017) and follow the relevant practice guidelines for their field of work.

Education and Employment Settings. There is a wealth of evidence to suggest that accessing mainstream education or employment could mean greater exposure to transphobia and possibly experience more distress (Stonewall, 2017). However, results of the present study suggest those who are accessing fulltime education or employment experienced significantly less distress, than those who were not. Those with higher levels of self-compassion may have been

able to respond to adverse circumstances (e.g., bullying or transphobia), and tolerate uncertainty about how their identity will develop or be responded to by others, through a lens of emotional warmth and flexibility. Remaining mindfully attuned may have also supported experiences of greater well-being. Being around their peers at school could support young people to understand everyone faces adversity, and although many people at school may experience struggles in relation to factors which outside of their gender identity, this provides opportunities to understand coping with difficulties are part of common humanity. Conversely, those who have a tendency to be more self-critical, may perseverate about negative experiences, or may be avoidant of school, which could lead to greater experiences of distress. There are, however, important individual factors (e.g., ability), and extraneous variables (e.g., how responsive schools are to bullying or transphobia) to consider, which were beyond the scope of this project. However, sizes between groups who were either in education or out of education were unequal and therefore these results should be interpreted with caution and explored further in future research.

Things appear to be moving in hopeful directions for LGBTQ+ communities in education, with 72% of respondents saying there were anti-bullying and inclusion and acceptance policies in their education provisions (Stonewall, 2021). The most recent report from UCAS and Stonewall (2021) suggests nine out of ten LQBTQ+ respondents (*N*=3000) reported positive or neutral experiences at school. Given the limitations of quantitative data, it's difficult to ascertain whether it was individual traits or external factors (e.g., supportive school environments, strict antibullying policies) which contributed to lower levels of distress with any certainty. This could be a helpful area to explore in future research to better understand the relationships between experiences of compassion in education settings, coping in the context of uncertainty and the impact this has on psychological distress, to inform the support structures for gender diverse youth. Longitudinal research is required to better understand the experiences of specific cohorts in education and employment and explore the intersectional needs and values of gender diverse young people to support them effectively. UCAS intends to conduct this research in 2022.

Access to Clinical Services. When comparing community and GIDS (clinical) groups within the sample, 62.8% of participants were in the high range on the RCADS within the community group and only 42.9% were in the GIDS group which was a significant disparity. The majority of the GIDS sample scored within normal range (51.4%) in comparison to the community group (20.9%). This may be indicative of young people experiencing lower levels of distress once they are receiving care from specialist gender services in comparison to community samples where CYP hoping to access services may be experiencing long waiting times. In the

current sample, it may be that the community sample is more representative of those on a waiting list given long waiting times for gender diverse youth at present. However, as this information was not formally obtained it cannot be presumed. It is also difficult to know whether the distress experienced was attributable to gender-related distress or other factors which could cause distress for any adolescent, navigating relationships, exam stress, living circumstances, or socioeconomic status for example.

One of the key aims at GIDS is to explore the development of gender identity with a view to improve psychological well-being, reduce gender-related distress and provide support if there are any associated difficulties with relationships (GIDS, 2022). It is possible the compassionate approach adopted by professionals (Canvin et al., 2022) may have enhanced their capacity to be self-compassionate and reduced some of the uncertainty they experience from systemic influences with regards to accessing health services, including worries about how they may be treated in health services, as well as receiving gender affirming treatment which may have reduced experiences of distress.

Advances in research in recent years increasingly demonstrates the safety of gender affirming care and links to psychological well-being (Canvin et al., 2022). Findings may be suggestive of the containment they receive from specialist services when exploring or expressing their gender, which in turn enhances experiences of acceptance and understanding and may provide some reassurances about the care they will receive. Access to specialist support could support them to normalise their experiences and provide opportunities to connect which are also known to reduce level of distress.

Therapeutic Support. Overall, and of most significance, findings highlighted that psychological distress was significantly higher for this sample than adolescents in cisgender samples (Chorpita et al., 2000), and that self-compassion was statistically predictive of reduced distress through greater tolerance of uncertainty. Whilst there are now a number of NICE guidelines about physical health care for gender diverse individuals there are no current NICE guidelines about therapeutic support. Therefore, these findings are clinically relevant to consider by those providing therapeutic support to improve the well-being of gender diverse youth.

It could be considered that for gender diverse youth, therapeutic support is offered to help develop self-compassion to reduce additional distress experienced. It is important to reinforce that therapeutic support does not seek to change any aspect of a person's gender identity, instead it suggests thinking about how self-compassion, as opposed to self-criticism, could be a helpful therapeutic tool when managing distress, rather than trying to change any

aspect of themselves. Canvin et al. (2022) make the distinction between therapeutic models which provide support to manage distress, rather than treating gender "incongruence" which is not viewed as ethical for therapeutic work. It is however ethically necessary to provide therapeutic support to this population and the current study suggests compassion focussed approaches could be a helpful antidote for young people experiencing high levels of self-criticism or shame to reduce any distress which may arise in conjunction to exploring or expressing their gender identity. Implications for clinicians include having transparent conversations about any ambivalence towards therapy and making it explicit that *gender identity* is never viewed as a target for intervention, as therapeutic modalities used should seek to reduce distress whilst combining explorative and affirmative approaches whilst validating their experiences in relation to their gender identity. With this in mind, Cavin et al., (2022) note the importance of being honest when discussing the ethical positioning therapeutic approaches and how it could be helpful in helping them cope without invalidating their identity.

Strength-based approaches could be utilised by professionals to identify resources such as self-compassion of tolerance of uncertainty in gender diverse youth. For many, having a minoritised gender, ethnic or other identity can be protective on the basis they experience a greater sense of belonging, self-identity, drive for social justice which supports well-being (Jones & Hillier, 2013; Riggle, 2011).

The current study also shows trait self-compassion and tolerance of uncertainty are particularly important resources which could be drawn on to regulate potential distress, though of course there may be others that were not measured within this project which could be helpful assets to enhance well-being. However, there are currently no standardised assessment tools with normative data available for gender diverse individuals to assess psychological constructs such as psychological distress or social communication difficulties. These measures are often scored according to assigned sex at birth and use binary pronouns which are not inclusive for all genders. These tools need validating for this group to be of greater value for this group.

For those who wish to access therapy, there is a growing interest into researching compassion focused approaches in recent years alongside other 'third wave' cognitive behavioural therapies such as Compassion Focused Therapy (Gilbert, 2009). CFT aims to balance the three affect systems, by cultivating an awareness of self-critical thoughts and the impact of shame and combines this with skills practice to develop the soothing system. Psychoeducation about self-compassion and mindfulness have been shown to be helpful in this group (Bluth et al., 2021). In addition, collaboratively building formulations to support a young person to

understand how they relate and view themselves and others in the context of uncertainty and the current socio-political influences could be helpful in managing distress relating to common patterns of thinking for this group (e.g., fear of transitioning or avoidance of social events; Charlton, Charlsey & Matthews, 2019).

Some early research has begun to explore the feasibility of cultivating self-compassion therapeutically for gender diverse CYP (Bluth, et al., 2021). Participants aged between 13 and 17 years engaged in the empirically based 'Mindful self-compassion for Teens" program online using a mixed-methods design. Preliminary quantitative analysis suggested psychosocial outcomes (e.g., self-compassion, mindfulness, resilience, depression and anxiety) significantly improved post-intervention and after a 3-month delay, suggesting improvements were sustained. Qualitative interviews and semi-structured survey data was analysed using both inductive and deductive methods, and several themes emerged including 'virtual safe space', 'personal growth' and 'connection to the body'. The intervention helped young people to feel less isolated by sharing their vulnerabilities with others in the presence of non-judgemental facilitators, which enhanced a sense of common humanity. This is likely to have contributed to their improved mental health and could be a helpful approach for services using virtual modalities. Benefits may also extend to sessions in person and individual therapy, though this is yet to be empirically validated. These findings supported other cross-sectional findings suggesting self-compassion is a valuable resource in enhancing well-being for gender diverse youth (Keng & Liew, 2017; Vigna et al., 2018). Respondents reported that non-judgemental and flexible qualities from facilitators were key to cultivating compassion, fostering a context of safety to explore their vulnerabilities. Many had not spoken to other gender diverse young people about their personal experiences and had not had the opportunity to build a sense of common humanity, knowing they 'were not alone'. This corroborates Lathren et al.'s (2018) study with young people with LTC. These findings may generate hope for young people who feel isolated, which undoubtedly improves well-being and quality of life for young people accessing such therapeutic interventions. There were limitations as the sample was small and were not compared to a control group, so causal links could not be established. Larger samples could enhance generalisability in future. In addition, young people recommended that experts by experience would enhance the value of the group by sharing their knowledge about common challenges for gender diverse youth. This could provide opportunities to connect with people who are further along in their transition process with a view to supporting them to better tolerate uncertainty surrounding exploring and expressing their gender identity and reducing distress. Thus, co-producing compassion focussed therapeutic support groups could be of benefit.

One recent case study approach illustrated how developing self-compassion and tolerating distress arising from uncertainty could support gender diverse young people in a clinical sample could help to build a different relationship to difficulties arising from their experiences (Canvin et al. 2022). Following therapeutic support, gender diverse youth were more able to align with their values and engage in meaningful activity, in education, and reported improved interpersonal relationships. Formulating their difficulties in the context of their gender identity and key events in their life reduced experiences of distress through facilitating a better understanding of themselves, as well as guiding subsequent therapeutic support. However, this study was based on anecdotal evidence and may have been subject to reported bias and require further empirical support.

Mindfulness-based therapies also have common underlying principles of self-compassion training and have been evidenced to be effective in significantly increasing an individual's ability to tolerate uncertainty for young people with high levels of anxiety (Asli Azad et al., 2019). There is also a growing evidence-base suggesting the effectiveness of digital applications to promote well-being. This can empower young people to manage their own well-being (Gilbey et al., 2020) giving valuable opportunities to connect with others, receive daily affirmations to promote acceptance as well as providing psychoeducation. This medium may be preferable for those with social communication difficulties. There are also a growing body of co-produced resources for gender diverse youth (e.g., the gender unicorn; Transstudent, 2021) which can guide inclusive practice from supporting networks.

As this is the first study of its kind to measure these variables in an children and young people findings on the benefits of self-compassion reducing distress through tolerance of uncertainty are likely applicable for adolescent populations more broadly. Compassion focused approaches can be especially useful for individuals who experience marginalisation based on their identity, racial or ethnic identity, sexual identity, disability, class, or faith when considering intersectionality (Dale & Saunders, 2018) and the application of these findings are likely to extend to marginalised groups as well as any individual experiencing distress more broadly, as the underlying psychological processes have now been replicated in adults and gender diverse youth. However, many acknowledge individual interventions have limitations in the context of the social and structural barriers of systemic stigma and discrimination.

4.3.4 Societal System

The societal system consists of wider systems affecting the socio-cultural context including the media and governing bodies of services supporting gender diverse youth (Edwards, Goodwin & Neumann, 2019). The media as part of the macrosystem can serve to support the community as well as contribute to minority stress (Edwards, Goodwin & Neumann, 2019). It is recognised that distress experienced by gender diverse youth can be attributable to transphobic, cis-normative views and structural oppression. Change at a systemic level, to drive policy change and reducing stigma in the media and within Western cultures, could have the biggest impact on well-being or gender diverse people and should be prioritised.

Cultivating self-compassion and tolerance of uncertainty at this level requires advocation for gender diverse individuals by decision makers in positions of power with support from media organisations. Approaches could include rights-based activism (Mwakasungula, 2013), developing allyships (Wernick et al., 2013), and improving visibility of gender diverse people (Logie et al., 2018), which have been helpful tools for the progression of social change. Increasing social awareness had also enhanced better legal protection and human rights for gender diverse individuals (Allen et al., 2021). These approaches could change cis-normative ideologies and encourage acceptance beyond the gender binary on a societal level reducing stigma of minoritised identities. In turn gender diverse youth may feel more accepted by society and more accepting of themselves.

Gender diverse populations have a strong online presence and CYP often look to online forums and social media platforms for support. The internet can often provide quicker feedback than waiting for NHS or community services (McNeil et al., 2012). Some literature reports CYP often use the internet as a space to access support as well as for expression, activism, and it can aid a sense of belonging which can cultivate self-compassion (Wright, 2005; Pullen, 2014). However, anonymity of such platforms can also expose young people to risk of online abuse (Edwards, Goodwin & Neumann, 2019).

The more polarised disagreements on topics surrounding gender diverse rights become, the less safe spaces there are to have non-judgmental and open conversations to promote positive change. However, embedding compassion towards gender diverse individuals at a societal level and reducing contextual uncertainty could support gender diverse youth to internalise self-compassion as opposed to societal prejudices. This in turn could enhance their capacity to tolerate uncertainty whilst concurrently reducing the systemic uncertainty and associated distress which could ultimately, improve the quality of life for gender diverse youth.

Disseminating research on the protective benefits of self-compassion for gender diverse young people could help to inform policy change and develop a sense of safety for gender diverse youth, as well as reduce any uncertainty arising from wider systemic issues, including worries about future service provision.

4.4 Strengths and Limitations

4.4.1 Strengths

Unique Contribution to the Evidence Base. Whilst the literature often focuses on psychological vulnerabilities within this group, this study aimed to focus on protective psychological factors to enhance well-being. To the authors knowledge, this study was the first to explore a model of self-compassion and reduced distress through greater tolerance of uncertainty in both gender diverse individuals, and adolescents more broadly, providing a valuable contribution to the literature. The findings support the understanding of the potential benefits of self-compassion for gender diverse youth and suggest mechanisms underpinning relationships between these constructs are not unique from other populations in terms of their impact on psychological distress. In practice this may suggest that cultivating self-compassion in this population through self-compassion and mindfulness-based approaches, which are known to mitigate experiences of shame and self-criticism, could enhance an individual's capacity to tolerate uncertainty in the face of adversity and reduce experiences of distress. However, further clarification of the utility of self-compassion and tolerance of uncertainty is warranted using prospective designs in order to further establish potential adaptations and group-level utility of the current model in practice. With further research, this finding could lead to more effective therapeutic support for gender diverse youth, as there are currently no NICE guidelines surrounding therapeutic support for gender diverse youth.

PPI. The project centred the views of gender diverse young people and their caregivers. PPI representatives were paid for their contributions to the design and implementation of the study who helped to ensure the language used in materials was sensitive and clear. PPI helped improve the validity of the research, as consultations with service-users found the area to be relevant and clinically meaningful which strengthens research and its outputs (Health Services Research Centre, 2022). Consultation from the National NHS Gender Identity Development Services and third sector organisations were instrumental in supporting the navigation around obstacles with recruitment in order to reach the revised sample size. Consultations with young people, caregivers and services also helped inform decisions around arising ethical

considerations, for example, supporting decisions around obtaining informed consent and preserving anonymity.

Design. The sample size achieved was large enough to test the proposed model with sufficient power. A robust relationship between these variables was found (Cohen's, 1988), suggesting the potential utility of cultivating self-compassion in gender diverse youth. The study used an online survey, in an attempt to ensure it was as inclusive as possible. Online questionnaire methods have become increasingly popular in population focused studies with CYP (Denissen, Neumann & Van Zalk, 2010). They also offer greater accessibility for marginalised groups or communities which are often understudied in offline settings (Mcinroy, 2016). Online recruitment was crucial for gender diverse CYP as they are especially viable for networking and sharing information (Horvath, Iantaffi, Gray & Bockting, 2012). In comparison to offline methods, online surveys can offer a safe and anonymous context, which is particularly helpful when discussing sensitive subjects (Willis, 2011). Overall, this method was considered to be the most economic, timely and safe way to collect data from a representative sample amidst the COVID-19 pandemic.

The current study included people from clinical and community groups, thus, findings may be more generalisable to the gender diverse communities as a whole, rather than just in clinical settings where research often takes place. Whilst previous surveys have often categorised gender into binary or non-binary genders, the current study aimed to be inclusive of all identity descriptors and the group was considered together rather than making comparisons.

Analysis. The key component of mediation analysis is to find a statistical and clinically meaningful indirect effect (Preacher & Hayes, 2004). Preacher and Hayes (2004) argue the importance of exploring the process underpinning the relationships of variables which is a strength of the current study. This supported that cross-sectionally, self-compassion enhances capacity to tolerate uncertainty, in turn reducing distress. These findings have clinical utility as it can guide future therapeutic support in clinical and community settings as discussed above.

4.4.2 Limitations

COVID-19 Pandemic. COVID-19 continues to have an impact on a global scale, and it is important to consider the impact of conducting the research within the pandemic. COVID-19 exacerbated the context of uncertainty for young people who were especially impacted in terms of their mental health (Fancourt et al., 2020). The impact this had on the design and

implementation of the project have already been discussed, however, it is also important to consider the potential impact on uptake to the survey and the responses to survey questions.

Whilst some services were able to put posters in waiting rooms or share with groups at times when restrictions were lifted temporarily, for many services this was not possible. This may have reduced opportunities for younger participants, who do not access social media or online support groups, the opportunity to take part. Despite the reach of the advert on social media, uptake to the study was relatively low. Feedback from 36 organisations offered insight to the reasons why they were unable to support the project. This included limited capacity, involvement in other research projects, prioritising collaborations with gender diverse researchers, and prioritising resources to support young people directly which should be held in mind for prospective researchers in future.

Due to restrictions during COVID-19, there was reduced access to support services, health care or accessing usual day-to day routines in order to cope with uncertainty and manage symptoms of distress. It is also possible they were less able to be compassionate to themselves as they were less able to connect with others which may have influenced their overall scores. Therefore, scores may be inflated or reflective of situational stressors which the model did not account for. However, the prevalence of psychological distress in the context of uncertainty is a commonly occurring theme given the perpetual socio-political challenges this population face, so it is difficult to distinguish whether this had a significant impact on these variables or not.

Sampling. Whilst the sample size was sufficiently large enough to include the total scores of each measure in inferential analyses, it was not large enough to complete any subscale analyses as intended. As selection was not randomised across GIDS and community groups, there was a threat to internal validity as they differed systematically in ways other than the level or self-compassion or intolerance of uncertainty. Sampling strategies were carefully considered to attempt to ensure a representative sample was obtained from both groups and differences were controlled for where possible to limit any impact on outcome data. However, there were some differences noted as a limitation of the study.

In addition, community-based sampling methods have been critiqued for reaching a disproportionate rate of vulnerable targeted populations. Survey respondents can represent multiple intersecting minoritised group status, exacerbating the oppression they may face (Rosser, Oakes, Bockting & Miner, 2007). This has its advantages, as it highlights the level of need of those who are more vulnerable, however it may overrepresent some targeted problems in community samples (Rosser, Oakes, Bockting, & Miner, 2007). Although, it is also possible that

those who experience multiple intersecting identities may also experience higher oppression. Some research may not be made accessible, for example because individuals may not have been able to access the internet. As participants were self-selecting, it is possible that those who are more self-compassionate may feel more able to participate in research whilst those who are less self-compassionate may feel less resourced and more affected by socio-political events.

Data collection spanned services across the UK to try and collect a representative sample in terms of geography, however, as the location of respondents was unknown, it is difficult to see whether this strategy was effective. Despite efforts to increase ethnic diversity within the sample by approaching organisations who support a varied range of ethnic groups, there was limited variation overall which may mean data was not sensitive enough to detect differences for this variable. Though the sample may be representative of the population as a whole in terms of ethnicity (Stonewall, 2017), the voices of minoritised communities was underrepresented in this study and target sampling could support future research in this area.

Standardised Outcome Measures. There are a lack of publications in the UK to determine the psychometric properties of the standardised measures used in the current study. The SRS-2 and RCADS utilise normative data from the US, which may not be applicable to populations in the UK (e.g., due to different educational systems) and results should be interpreted with caution. In addition, the RCADS and SRS-2 use assigned gender at birth to calculate *t*-scores. Whilst *t*-scores for the current sample were not comparable to a cisgender sample (Constantino & Gruber 2012), they were comparable to adolescent sample from GIDS (Russell et al., 2020). Unfortunately, due to a poor return rate on the SRS-2, difficulties with social communication and interaction could not be measured as a co-variate and should be considered in future research given its relevance to this population. In addition, collating data on ability status would be helpful for future research for gender diverse populations who have a disability.

The SRS-2 did not use gender inclusive language for all, as it only included binary pronouns, which was a limitation of the study. As researchers are bound by licencing agreements this could not be changed as it was seen to invalidate the measure. It is strongly recommended that the language for routine outcome measures in services should made more suitable for all genders in future, and normative scores are better established in gender diverse samples.

Analyses. Analyses of indirect effects can be statistically powerful; however, this technique has been subjected to criticism, especially if there is not a strong theoretical rationale for using it (Cohen et al., 2014). However, there is also evidence to counter some of these critiques (Cohen et al., 2014). Firstly, the current study aimed to mitigate risk of type 1 error by providing

a strong theoretical rationale to explore self-compassion, tolerance of uncertainty and the strength and direction of these variables on levels of psychological distress. Secondly, theoretically self-compassion has been evidenced to precede a reduction in psychological distress in some small-scale randomised control studies of self-compassion-based interventions for LTC (e.g., Austin et al., 2020; Kılıç et al., 2020), and small-scale studies in gender diverse youth (Gorman et al., 2022), suggesting temporal precedence. This enhanced the likelihood of a possible link between variables, though prospective studies are required in this area. Thirdly, a number of suspected confounders were included in the analysis, and analysis was run in the presence and absence of this confounding variable (education/employment status), which did not significantly alter the relationship of findings strengthening the argument for the mediating effect. However, some extraneous variables, such as social communication ability, were not included in the main analysis and could be contributing to the proposed effect.

Although bootstrapping was used to enlarge the sample count to 5000 participants to strengthen the data, cross-sectional information must be interpreted with caution as ultimately, a correlational design cannot determine cause and effect (Sedgwick, 2014). Making causal inferences would require a prospective survey design as originally proposed. This would allow for further exploration of the strength and direction of variables in relation to psychological distress over time.

The content analysis required some interpretations from the researcher. Inductive approaches were utilised to reduce potential for bias from pre-conceived ideas about the topic area, however this process is not shielded from researcher bias. Consultations with supervisors were held to quality check this analytic procedure. However, quality checks from PPI representatives would have enhanced the reliability and validity of this analysis if consent had been obtained prior to the study.

4.5 Implications for Future Research

The current study highlighted some areas for further research to help understand the support needs of gender diverse youth and inclusive practice. Based on feedback from services and organisations involved, the following recommendations should be considered in the context of empowering gender diverse researchers to contribute to the evidence base if they wish to do so. Meaningful co-production with gender diverse populations should also inform the development of research questions, including focus groups to identify areas of further research which is important to the community. Recommendations on topic areas are summarised below:

- Longitudinal research is needed to understand whether self-compassion through tolerance of uncertainty is predictive of reduced distress over time in gender diverse youth. A larger sample would be beneficial to ensure subscale scores can also be analysed to explore the impacts of different facets of self-compassion and tolerance of uncertainty on psychological distress.
- It is difficult to ascertain why some gender diverse individuals experienced greater distress than others with any certainty. It could be because they think and view adverse situations differently or that their mindset causes them to behave or cope in different ways. Exploring self-compassion and tolerance of uncertainty in relation to coping behaviours could be a helpful model to explore in future.
- Further research is needed to develop standardised measures exploring psychological well-being designed specifically for gender diverse youth, developing comparative clinical and non-clinical norms to inform treatment guidelines suitable for this population.
- There is still a significant proportion of the variance which is unexplained by the model; some of this may potentially be the effect of which may have been explained by social communication, which was not included in the final analysis due to poor data quality. Given the disproportionally high prevalence of ASC in this population, it is clinically relevant to consider social communication and interaction skills in further research as a potential covariate.

4.6 Dissemination

A report will be prepared for the University of Leeds and shared with the NHS REC and made available on the Doctorate in Clinical Psychology, GIDS, and third sector websites. Participants were also made aware of the intentions to report any findings in academic health journals and present them to relevant professionals at meetings and conferences. They are informed that they will not be identified in any reports or publications arising from the study. Given my own background, I recognise this will shape my interpretation of the research and presentation of clinical implications. Further consultation will be sought from PPI and organisations who supported the project to centre their views when considering how to disseminate findings and ensure clinical recommendations are meaningful and made accessible to gender diverse youth and their supporting networks.

4.7 Conclusions

For gender diverse individuals, there are many positive attributes of identifying as gender diverse and exploring and expressing their gender identity can be both a liberating and affirming experience. However, gender diverse youth often experience uncertainty when exploring or expressing their identity and minority stress can lead to experiences of shame around their identity which increases the risk of psychological distress. Though exposure to cis-normative and transphobic systems are likely experienced by all gender diverse youth to some degree, an individual's response to adversity is unique to the individual. Overall levels of distress were found to be within the high range for the majority (53.8%) of the sample. For some this can manifest as psychological distress and for others it can lead to strength and resilience (Meyer, 2003).

This study is the first to explore the association between self-compassion, tolerance of uncertainty and psychological distress among gender diverse youth and adolescents in general. Findings suggest that cross-sectionally, self-compassion reduced psychological distress through greater tolerance of uncertainty in gender diverse youth and was supportive of the existing literature exploring similar models in adult and student samples (Deniz, 2021; Tang, 2019). This relationship demonstrated partial mediation with almost half of the effect passing indirectly and just over half passing directly.

Findings concur with recent literature demonstrating the protective properties of selfcompassion in reducing distress in gender diverse youth (e.g., Bluth et al., 2021; Canvin et al., 2022; Gorman et al., 2022) and a range of other clinical and community LGBTQ+ populations (Beard, Eames & Withers, 2016; Greene & Britton, 2015; Jennings & Tan, 2014). Neff (2003a) proposes that individuals with self-compassionate mindsets are more able to appraise adverse situations with greater flexibility and acceptance. In addition, holding an awareness of common humanity can enhance well-being which may extend to our understanding of the current findings in gender diverse youth. From this position of emotional warmth, gender diverse youth may have greater capacity to tolerate uncertainty and approach potentially challenging situations associated with exploring or expressing their gender identity, or otherwise with reduced experiences of psychological distress. Findings suggest similar relationships between selfcompassion reducing psychological distress through tolerance of uncertainty were found in cisgender adults and students (Deniz, 2021; Tang 2019), suggesting the underlying mechanisms between variables and reduced distress extend to this population and could be beneficial across the gender spectrum in clinical and community groups. This may suggest that cultivating selfcompassion in this population could enhance their capacity to tolerate uncertainty in the face of adversity, in turn leading to reduced experiences of distress. However, further clarification of the utility of self-compassion and tolerance of uncertainty is warranted using prospective designs. This would support the understanding of the predictive power of self-compassion and tolerance of uncertainty over time and better establish causal links to guide future support for gender diverse youth.

Compassion focused approaches can be especially useful for individuals who experience marginalisation based on their identity, racial or ethnic identity, sexual identity, disability, class, or faith when considering intersectionality (Dale & Saunders, 2018). The application of these findings are likely to extend to marginalised groups as well as any individual experiencing distress more broadly, as the underlying psychological processes have now been replicated a number of different populations.

The time in which this paper is written feels especially poignant for gender diverse youth from a historical perspective, given recent legal challenges and the proposed changes to the landscape of services. The current research adds a novel contribution to the knowledge base providing an understanding of self-compassion and tolerance of uncertainty and the predictive of lower levels of psychological distress for gender diverse youth, despite some methodological limitations. Compassion skills training and mindfulness-based approaches may be a useful therapeutic framework for this group, if delivered in a culturally sensitive way to enhance well-being. It is hoped that helping young people be kind to themselves and mindfully attuned, could enhance their capacity to tolerate uncertainty. This is particularly relevant within the current socio-political climate and could support gender diverse youth to navigate this potentially challenging yet liberating period of their lives with greater ease and psychological well-being.

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Appendix A - Search Strategy for Literature Review

Databases: Medline, PsychInfo, EMBASE February 2022 and May 2022.

Main Concept	Variations		
Self-compass*	exp self-compassion/		
Self-kind*	(self-compass* or self-kind* or compass*).tw.		
Compass*	"self-compassion scale".tw.		
Self-compassion scale			
All Self-Compassion (SC)	1 or 2 or 3		
Tolerance of Uncertainty	((tolerance or intolerance or managing) adj3 uncertainty).tw.		
Intolerance of uncertainty	("intolerance of uncertainty scale for children" or IUSC).tw.		
Managing uncertainty			
All Intolerance of Uncertainty (IoU)	5 or 6		
Psychological Distress/Stress	exp distress/		
Emotional Distress/Stress	(RCADS or "Revised Children's Anxiety and Depression		
Distress	Scale").tw.		
RCADS	((psychological or emotional) adj3 (distress or stress)).tw.		
All Psychological Distress (PD)	8 or 9 or 10		
Gender Diverse	("gender diverse" or trans or transgender* or "gender		
Trans	nonconform*" or nonbinary or "non binary" or "gender		
Transgender*	variant" or "gender fluid" or "gender queer" or		
Gender nonconform*	genderqueer).tw.		
Nonbinary			
Non-Binary			
Gender variant			
Gender Queer			
Genderqueer			
All Gender Diversity (GD)	As above		
SC, ToU, PDis and GD †	4 and 7 and 11 and 12		
SC, ToU and GD †	4 and 7 and 12		
SC, ToU and PDis	4 and 7 and 11		
SC and ToU	4 and 7		
SC, PDis and GD	4 and 11 and 12		
SC and GD	4 and 12		
ToU, PDis and GD	7 and 11 and 12		
ToU and GD	7 and 12		
ToU and PDis	7 and 11		
PD and GD	11 and 12		

Abbreviations: SC, Self-compassion; ToU, Tolerance of uncertainty; PDis, Psychological Distress; GD, Gender Diversity.

[†] No search results under these criteria

Appendix B - Health Research Authority and Health and Care Research Wales Approval





Email: approvals@hra.nhs.uk

Miss Chloe Lack
Psychologist in Clinical Training
Leeds Teaching Hospital NHS Foundation Trust
Clinical Psychology Training Programme
Leeds Institute of Health Sciences
University of Leeds
Level 10, Worsley Building
Clarendon Way
Leeds
LS2 9NL

29 June 2021

Dear Miss Lack

HRA and Health and Care Research Wales (HCRW) Approval Letter

Study title: Measuring levels of trait self-compassion in gender

diverse young people and the relationships between self-compassion and psychological outcomes for this

group.

IRAS project ID: 293018 REC reference: 21/SW/0071

Sponsor University of Leeds

I am pleased to confirm that <u>HRA and Health and Care Research Wales (HCRW) Approval</u> has been given for the above referenced study, on the basis described in the application form, protocol, supporting documentation and any clarifications received. You should not expect to receive anything further relating to this application.

Please now work with participating NHS organisations to confirm capacity and capability, <u>in</u> <u>line with the instructions provided in the "Information to support study set up" section towards</u> the end of this letter.

How should I work with participating NHS/HSC organisations in Northern Ireland and Scotland?

HRA and HCRW Approval does not apply to NHS/HSC organisations within Northern Ireland and Scotland.

If you indicated in your IRAS form that you do have participating organisations in either of these devolved administrations, the final document set and the study wide governance report (including this letter) have been sent to the coordinating centre of each participating nation. The relevant national coordinating function/s will contact you as appropriate.

Please see <u>IRAS Help</u> for information on working with NHS/HSC organisations in Northern Ireland and Scotland.

How should I work with participating non-NHS organisations?

HRA and HCRW Approval does not apply to non-NHS organisations. You should work with your non-NHS organisations to <u>obtain local agreement</u> in accordance with their procedures.

What are my notification responsibilities during the study?

The standard conditions document "<u>After Ethical Review – guidance for sponsors and investigators</u>", issued with your REC favourable opinion, gives detailed guidance on reporting expectations for studies, including:

- · Registration of research
- · Notifying amendments
- · Notifying the end of the study

The <u>HRA website</u> also provides guidance on these topics, and is updated in the light of changes in reporting expectations or procedures.

Who should I contact for further information?

Please do not hesitate to contact me for assistance with this application. My contact details are below.

Your IRAS project ID is 293018. Please quote this on all correspondence.

Yours sincerely,

Gemma Oakes

Approvals Specialist

Email: approvals@hra.nhs.uk

Copy to: Mrs Jean Uniake

List of Documents

The final document set assessed and approved by HRA and HCRW Approval is listed below.

Document	Version	Date
Completed Amendment Tool	Non- Substantial Amendment 1	28 June 2021
Copies of materials calling attention of potential participants to the research [Appendix 1a Research Advert Young Person]	2	14 June 2019
Copies of materials calling attention of potential participants to the research [Appendix 4b Welfare message GIDS]	1	04 January 2021
Copies of materials calling attention of potential participants to the research [Appendix 1b Research Advert Parent Carer]	2	14 June 2021
Copies of materials calling attention of potential participants to the research [Appendix 4b Welfare Message Parent Guardian]	2	11 June 2021
Copies of materials calling attention of potential participants to the research [Appendix 4a Welfare Community V2]	2	11 June 2021
Copies of materials calling attention of potential participants to the research [Appendix 4c Welfare Clinician V2]	2	11 June 2021
Costing template (commercial projects) [Costing Non-Commercial]	2	04 May 2021
Evidence of Sponsor insurance or indemnity (non-NHS Sponsors only) [Professional Indemnity Proof of cover]	1	01 October 2020
HRA Schedule of Events	1	03 June 2021
Interview schedules or topic guides for participants [Appendix 14 Focus Group Topic Guide]	1	01 November 2020
IRAS Application Form [IRAS_Form_14052021]		14 May 2021
IRAS Application Form XML file [IRAS_Form_14052021]		14 May 2021
Letter from sponsor [Confirmation of Sponsorship]	1	11 May 2021
Letters of invitation to participant [Appendix 6 Invite to survey link V2]	2	11 June 2021
Letters of invitation to participant [Appendix 6b Invite to video call community under 16]	1	15 June 2021
Letters of invitation to participant [Appendix 8a Reminder notification Time 1]	1	08 January 2021
Letters of invitation to participant [Appendix 8b Reminder Notifications Time 2]	1	08 January 2021
Non-validated questionnaire [Appendix 9 Demographic questionnaire v3]	3	14 June 2021
Organisation Information Document	3	24 May 2021
Other [Public and employers indemnity Uni of Leeds]	1	26 August 2020
Other [Appendix 7a Rights and Permissions SRS 2]	1	05 May 2021
Other [Appendix 7 Contract for use of the Social Responsiveness scale]	1	08 December 2020
Other [Appendix 18 Cover Letter detailing amendments]	1	21 June 2021
Participant consent form [Appendix 2 Consent to contact form v3]	3	14 June 2021
Participant consent form [Appendix 5a Consent form over 16 community v3]	3	14 June 2021
Participant consent form [Appendix 5b Version 4]	4	14 June 2019
Participant consent form [Appendix 5c Consent over 16 V3]	3	14 June 2021

Participant information sheet (PIS) [Appendix 3a.i Participant information sheet under 16 V1]		15 June 2021
Participant information sheet (PIS) [Appendix 3b Participant information sheet GIDS V4]	4	11 June 2021
Research protocol or project proposal		24 June 2021
Summary CV for Chief Investigator (CI) [Chief Investigator CV]		22 October 2020
Summary CV for supervisor (student research) [Dr Rebecca Yeates CV]	Undated	
Summary CV for supervisor (student research) [Dr Gary Latchford CV]	Undated	
Validated questionnaire [Appendix 11 - Intolerance of Uncertainty Measure for Children]		
Validated questionnaire [Appendix 19 - Intolerance of Uncertainty for Children (12 Item version)]		
Validated questionnaire [Appendix 10 Self Compassion scale for children]	1	13 March 2021
Validated questionnaire [Appendix 12 Revised children's anxiety and depression scale]	1	13 March 2021
Validated questionnaire [Appendix 13 Social Responsiveness Scale 2]	1	07 May 2021

Appendix C - Recruitment Advert - Community Sample

RESEARCH

ARE YOU A TRANS, NON-BINARY OR OTHERWISE GENDER DIVERSE

YOUNG PERSON?

ON



I'm Chloe, a Trainee Psychologist, and I am looking for young people aged between $14 - 18 \frac{1}{2}$ years old to take part in an online survey.

COPI

- I'm trying to better understand the different ways gender diverse young people cope with their experiences and how this relates to well-being.
- The project aims to help services better support gender diverse young people in the future.
- This study is committed to representing everyone's views and would particularly encourage those from a wide range of ethnicities to consider taking part.



OVER 16? Follow the link or access the QR code for more Information and access to the study

UNDER 16? Email Hs18cl@leeds.ac.uk before accessing the study

The project has been approved by Central Bristol Research Ethics Committee: 21/SW/0071

Appendix D - Example Participant Information Sheet and Consent Form



PARTICIPANT INFORMATION SHEET

Project Research Ethics Number: 21/SW/0071

Chief Investigator: Chloe Lack (Psychologist in Clinical Training)

Contact Details: [hs18cl@leeds.ac.uk]

I would like to invite you to take part in a research study by the University of Leeds. Before you decide whether you would like to take part, it is important to understand why the research is being done and what it would involve for you. Please read the following information carefully before deciding whether you wish to take part. Talk to others about the study if you wish. If anything is not clear or if you would like more information, please contact me on the email above.

What is the purpose of the study?

Gender diverse young people exploring their gender identity or expressing their gender identity can report a wide range of different emotional experiences. Some people report their psychological wellbeing can be influenced by their experiences of their bodies and/or their interactions with others which can lead them to cope in different ways. This research is interested in finding out whether there are differences in how young people cope in uncertain situations and whether these differences impact on psychological wellbeing in relation to their gender identity. It could also help clinicians/support workers to understand how to support young people during this time and improve quality of life.

Who can take part?

I am looking for young people aged between 14 – 18 years and 6 months to participate in this study. I am looking to recruit approximately 150 young people.

Do I have to take part?

Your participation is voluntary, and you do not have to take part. If you decide to take part, you will be asked to sign a consent form. If you change your mind you are free to leave the study at any time without giving a reason. You can also withdraw from the study by contacting me, Chloe Lack (Chief Investigator).

What will happen if I agree to take part?

Figure 1 (below) shows a brief outline of what you will be asked to do as part of your time in this study.

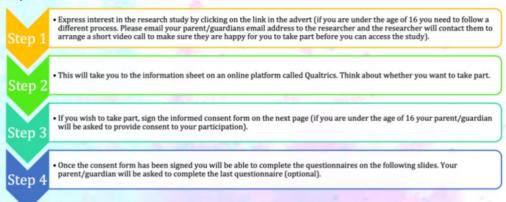


Figure 1. A diagram showing the research study design

Right now, you are at Step 2. If you decide after reading this information sheet that you would like to take part, please complete the consent form on the next page. You will then be able to access the questionnaires on the next pages in order to take part.

By signing the consent form, you are telling me that you understand what is involved in the study and that you can withdraw from the study at any time. If you would still like to participate, please follow the link to fill out the questionnaires. You will be asked to complete some short questionnaires which may take between 15-20 minutes. They will ask you about your gender identity, emotional well-being and ways of coping. Your parent/guardian will also be asked to complete a questionnaire about your communication style which might take between 15-20 minutes (this is optional). Once these have been completed your participation in this study will end.

What are the benefits of taking part?

There are no immediate benefits to taking part, but it is hoped that the results of this study will help improve our understanding of how best to support gender diverse young people. I hope that the results of this study will give more information about the types of psychological support which may help young people with their emotional wellbeing in relation to their gender identity.

What are the risks and disadvantages of taking part?

Some of the questions you will be asked may make you think about your experiences, which could make you feel upset. If this is the case, you can discuss what options you have for support in your local area, like speaking to your General Practitioner (GP) or your local Child and Adolescent Mental Health Support (CAMHS) team. You may also want to speak to someone who already supports you, such as a family member, friend, or community support networks. If your responses to the

questionnaire suggest that you are experiencing thoughts that may cause you harm a welfare message will appear on your screen with some guidance on how you can access support. You will also be sent an email on the address provided with the same guidance.

What if you are unhappy, there is a problem or you wish to make a complaint:

The University in is in charge of making sure our research is done properly. Any complaints you have about this study will be fully investigated. If you have a concern about any aspect of this study, you can speak with me (Chloe Lack) or my research supervisor, Dr Gary Latchford (G.latchford@leeds.ac.uk). If you want to contact someone who is not a member of the research team you can contact Clare Skinner (Head of Research Integrity and Governance) on governance-ethics@leeds.ac.uk. Please mention the research IRAS reference 293018, the researchers involved, and the details of the complaint.

What if something feels like it goes wrong or you are harmed in any way:

In the unlikely event that something should go wrong or you are harmed during the study, you can contact me to discuss this and your involvement in the remainder of the study can be stopped. You do not need to give a reason for ending your involvement in the study.

Will my data be kept confidential?

All information obtained during the study will be kept confidential and if the data is published it will not be identifiable as yours. All data will be kept on secure University servers. The servers will be accessed remotely from password protected computers with anti-virus software. No personal or identifiable information (e.g. name, email, etc.) will be stored with the survey data from the study.

A unique identifier code will be generated which will not be connected to your name or identity and will be linked with your email address. This information will be stored on an encrypted database and deleted when your participation in the study ends. All healthcare research is subject to monitoring and inspection to ensure that it is being carried out safely and accurately, and that the interests of those taking part are protected. Such monitoring will be organised by the regulators responsible for healthcare research and the sponsor. No personal information is ever collected.

What will happen to my information?

The University of Leeds is the Sponsor for this study and is responsible for looking after and storing your personal data. Your data will be collected via the secure Qualtrics online survey platform which the university has approved for the use of research. Your data includes data from the questionnaires you complete and your email address so I can contact you whilst you are active in the research if a risk is raised that you may require support with or so I can identify you if you wish to withdraw.

This information will be stored securely on Qualtrics. Your survey responses will be downloaded and stored on a password protected research database on a secure university server. Once your questionnaire data is uploaded, your email address will be deleted from my records. Your data will then be deleted from the survey platform.

My research supervisors and I at the University of Leeds are responsible for storing your anonymised research data. The data will be kept for 10 years to inform future research, approved by the appropriate ethics committee, and provide evidence that our results are based on real data, should this be required.

I will use information about your social communication (from a questionnaire filled out by your parent/carer if you agree to this) to help me understand more about the communication styles of gender diverse young people.

Your rights to access, change or move or withdraw your information are limited as the data is anonymous, as I need to manage your information in specific ways for the research to be reliable and accurate. If you withdraw from the study, I will keep the anonymised information that I have already obtained. To safeguard your rights, I will use the minimum personally identifiable information possible. You can find out more about how I use your information in the University of Leeds Privacy notice https://dataprotection.leeds.ac.uk/wp-content/uploads/sites/48/2019/02/Research-Privacy-Notice.pdf. You can also contact the University data protection officer (<a href="https://document.new.org

Further information from the Health Research Authority explaining how researchers use your information can be found here https://s3.eu-west-

2.amazonaws.com/www.hra.nhs.uk/media/documents/My data and research qbmsVYc.pdf

What will happen to the results of the project?

The findings of this study will be written into a doctorate thesis report and published on the Doctorate of Clinical Psychology Website. I intend to report the findings on supporting organisations websites as well as the Gender Identity Development Service website. Findings may also be published in academic health journals and presented to relevant health professionals at meetings and conferences. You will not be identified in any reports or publications arising from the study.

Who is organising and funding this project?

This project is being organised, funded, and sponsored by the University of Leeds which is based in the United Kingdom. The University of Leeds will act as the data controller for this study, this means that it is responsible for looking after your information and using it properly.

Who has reviewed this research?

All research that takes place within the University of Leeds and the NHS is looked at by an independent group called the National Research Ethics Committee, to protect your interests. This study has been reviewed and given Favourable Opinion by the South West - Central Bristol Research Ethics Committee.

What if I want to ask questions not included in this information sheet?

Please raise any further questions you may have with the Chief Investigator of this study on the email above.

Project Research Ethics Number: 21/SW/0071

Thank you for taking the time to read this information sheet and considering taking part in this study.

IRAS 293018 Information Sheet Version 7.0 Date 19.01.22

(Version	that I have read and understand the information sheet dated 19/01/2022 (r) for the above study, I am eligible to take part, and have had the opportunity to ons to the researcher via email.	
I unders without	and that my participation is voluntary and that I am free to withdraw at any time, iving any reason, and without my medical care or legal rights being affected.	
study, to	mission for my anonymous research data which will be collected as part of this be potentially used in further research studies that have been approved by the te Ethics Committee.	
This que research commun	questionnaire in the study is a questionnaire about social communication styles. tionnaire is designed to be completed by a parent or guardian to inform this study so we can analyse data from people who use a broad range of cation styles. I agree for my parent/carer complete this questionnaire and for used as part of the research study. I understand this is not a mandatory ent.	
I agree to	take part in the above study. Please provide an email address below.	
I agree to	take part in the above study. Please provide an email address below.	
	take part in the above study. Please provide an email address below. m your consent by signing below	
ease confi	m your consent by signing below	
ease confi	m your consent by signing below	

Appendix E - Demographic Questionnaire

This questionnaire will ask you some questions about yourself. This information will be used to compare data across young people with different experiences and identities 1. How old are you? ______ 2. What was your assigned gender at birth? ______ 3. How do you identify your gender today? _____ 4. Approximately how long have you identified in the way you do today? ______ 5. Have you made a social transition? (A social transition is a word used to refer to the 'social' elements of living according to your gender identity; for example, telling others about your gender identity, changing your name and pronouns and the way you express yourself) (yes/no) 6. If the answer to question 5 is yes, please provide some brief information about what this has entailed for you. 7. How would you describe your ethnicity? (Please tick) ☐ Asian/Asian British ☐ Black/African/Caribbean/Black British ☐ Mixed/Multiple ethnic groups □ White ☐ Other ethnic group 8. Are you in full time education? (please tick) Yes - school Yes – sixth form/college Yes - other (please provide brief description) No (please provide brief description of educational circumstances)

*Community Sample ONLY

9. Are you currently engaging in an assessment or treatment with the Gender Identity Development Service?

Yes/No

Appendix F - Self-Compassion Scale (Neff, 2003b)

These questions will ask you about how you typically act towards yourself in difficult times. A word that is frequently used in this questionnaire is 'inadequacies', this is a word that refers to parts of yourself that you perceive as not being good enough or parts that you a lack confidence about.

Please read each statement carefully before answering.

To the left of each item, indicate how often you behave in the stated manner, using the following scale:

Alm alw		2	3	4	Almost never 5		
 1. I'm disapproving and judgmental about my own flaws and inadequacies 2. When I'm feeling down, I tend to obsess and fixate on everything that's wrong 3. When things are going badly for me, I see the difficulties as part of life that everyone goes through 4. When I think about my inadequacies, it tends to make me feel more separate and cut off from the rest of the world 5. I try to be loving towards myself when I'm feeling emotional pain 6. When I fail at something important to me, I become consumed by feelings of inadequacy 7. When I'm down and out, I remind myself that there are lots of other people in the 							
wor 8. Whe 9. Whe 10. Wh	ld feeling lil n times are n somethin en I feel ina lequacy are	ke I am really diff g upsets n dequate i shared by	ficult, I t ne, I try n some v most p	tend to to kee way, I beople	be tough on m p my emotions try to remind n	yself	of
12. Wh I ned 13. Wh than 14. Wh	en I'm goin ed en I'm feeli 1 I am en somethi	g through ng down, l ng painful	a very l I tend to happer	hard tir o feel li ns, I try	me, I give myse	elf the caring and te people are probabl nced view of the sit	enderness y happier
16. Wh 17. Wh 18. Wh easi 19. I'm	en I see asp en I fail at s en I'm reall er time of it kind to my	ects of my omething y struggli self when	yself tha import ng, I ten I'm exp	at I don ant to ad to fe	't like, I get dov me, I try to kee	wn on myself p things in perspec ople must be havin	
21. I ca 22. Wh 23. I'm 24. Wh 25. Wh 26. I try	n be a bit co en I'm feeli tolerant of en somethi nen I fail at s	old-hearte ng down, my own fl ng painful something	ed toward try to a laws and happer that's i	rds my approa d inade ns, I ter import	self when I'm e ch my feelings equacies ad to blow the i ant to me, I ten	experiencing suffering with curiosity and incident out of proper in the feel alone in managers of my personal to feel alone in managers.	openness portion ny failure

Appendix G - Intolerance of Uncertainty Scale for Children - 12 (Cornacchio et al., 2018)

How well do these statements describe you?

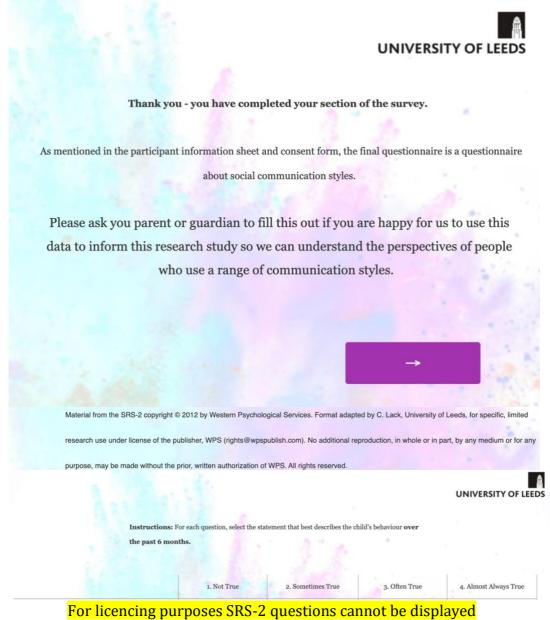
To the left of each item, say how characteristic of you the following statements are, using the following scale:

Not at all	Alittle	Somewnat	very	very much		
1	2.	3	4	5		
				I was		
1. Surprise events upset me greatly						
2. It frustrates me not having all the information I need						
2. Not	knowing wh	nat could happ	en keep:	s me from enjoy	ring life	
4. One should always think ahead to avoid surprises						
5. Plans can be ruined by things you don't think will happen						
6. When it is time to do things, not knowing what could happen keeps me from acting						
7. When I am not sure of something I can't work very well						
8. I alv	ways want to	know what w	ill happe	en to me in the	future	
9. I do	n't like being	g taken by surj	orise			
10. The smallest doubt can stop me from doing things						
11. I s	hould be abl	e to prepare fo	r everyt	thing in advance	e	
12. I n	nust get awa	y from all the	situation	is where I don't	know what will happen	

Appendix H - Revised Children's Anxiety and Depression Scale (RCADS; Chorpita et al., 2000).

1. I worry about things
2. I feel sad or empty
3. When I have a problem, I get a funny feeling in my stomach
4. I worry when I think I have done poorly at something
5. I would feel afraid of being on my own at home
6. Nothing is much fun anymore
7. I feel scared when I have to take a test
8. I feel worried when I think someone is angry with me
9. I worry about being away from my parent
10. I am bothered by bad or silly thoughts or pictures in my mind
11. I have trouble sleeping
12. I worry that I will do badly at my school work
13. I worry that something awful will happen to someone in my family
14. I suddenly feel as if I can't breathe when there is no reason for this
15. I have problems with my appetite
16. I have to keep checking that I have done things right (like the switch is off, or the
door is locked)
17. I feel scared if I have to sleep on my own
18. I have trouble going to school in the mornings because I feel nervous or afraid
19. I have no energy for things
20. I worry I might look foolish
21. I am tired a lot
22. I worry that bad things will happen to me
23. I can't seem to get bad or silly thoughts out of my head
24. When I have a problem, my heart beats really fast
25. I cannot think clearly
26. I suddenly start to tremble or shake when there is no reason for this
27. I worry that something bad will happen to me
28. When I have a problem, I feel shaky
29. I feel worthless
30. I worry about making mistakes
31. I have to think of special thoughts (like numbers or words) to stop bad things from
happening
32. I worry what other people think of me33. I am afraid of being in crowded places (like shopping centres, the movies, buses,
33. I am afraid of being in crowded places (like shopping centres, the movies, buses,
busy playgrounds)
34. All of a sudden I feel really scared for no reason at all
35. I worry about what is going to happen
36. I suddenly become dizzy or faint when there is no reason for this
37. I think about death
38. I feel afraid if I have to talk in front of my class
39. My heart suddenly starts to beat too quickly for no reason
40. I feel like I don't want to move
41. I worry that I will suddenly get a scared feeling when there is nothing to be afraid of
42. I have to do some things over and over again (like washing my hands, cleaning or
putting things in a certain order)
43. I feel afraid that I will make a fool of myself in front of people
44. I have to do some things in just the right way to stop bad things from happening
45. I worry when I go to bed at night
46. I would feel scared if I had to stay away from home overnight
47. I feel restless

Appendix I: Social Responsiveness Scale, 2nd Edition Copyright Clause and Licensing Agreement (Constantino & Gruber, 2012)







November 19, 2020

Chloe Lack, MSc, BSc.
Psychologist in Clinical Training
University of Leeds
Leeds Institute of Health Sciences
Worsley Building
Level 10, Clarendon Way
Leeds, LS2 9NL
United Kingdom

Re: Social Responsiveness Scale, Second Edition (SRS-2) - School-Age Form

Dear Ms. Lack.

In follow-up to the email application of 16Nov'20, and Dr. Rebecca Yeates' letter of support dated 17Nov'20 on your behalf, this letter serves to provide terms that, on execution, will permit you to a) adapt the format of the indicated SRS-2 material, b) administer the SRS-2 material, in English, via a secure, password-protected online environment, and to c) conduct database-style scoring of the material, for use within your registered, scholarly study, exploring the relationships between self-compassion, tolerance to uncertainty and psychological distress in a young gender diverse sample.

Western Psychological Services will authorize you to arrange for delivery of the SRS-2 form as indicated-parallel with and consistent to the entire prevailing item set — and to administer the scale a specific number of times, and to create scoring-only computerized keys for tabulation of item responses, as based on our hand-scoring key—for the sole purpose of conducting the above-described study, and not for continued or commercial use—on satisfaction of the following conditions:

- You must purchase from WPS a license for the anticipated total number of SRS-2 School-Age Forms.
- (2) The per-use fee for your described customized use of SRS-2 material will be equivalent to the cost of purchasing an equal number of original SRS-2 School-Age Forms (W-608A) at the prevailing price, less 20% Research Discount with a minimum requirement one hundred (100) licensed uses, and shipping and handling fees are not applicable to licensing costs. The per-use fee for this described use of the indicated materials shall be as follows: 100 SRS-2 administrations @ \$2.02 (discounted by 20%) = \$202.00 total license fee. Additionally, there is a one-time \$30.00 administrative fee.
- (3) The license fees must be prepaid (Visa, MasterCard, Discover and American Express are accepted and swiftest) and are non-refundable. To ensure proper handling of your licensing arrangements, and to guarantee the rate in condition 2 above, please send the payment to my attention with a copy of this letter, within the next 30 days. Allow the emphasis that you must contact WPS Rights & Permissions to arrange payment of your license fees; please do not contact WPS Customer Service for this purpose.

Chloe Lack, MSc, BSc. Psychologist in Clinical Training University of Leeds November 19, 2020 Page Two of Three

- (4) Each reprint/viewing of the SRS-2 material must bear—on the screen of item presentation, such as on the frame for each page—the required copyright notice that will be provided to you by WPS. WPS maintains its rights to all SRS-2 adaptations.
- (5) With specific regard to the online administration, access to the SRS-2 items must be granted via a secure website (e.g. such as being password protected to the individual participants).
- (6) Regardless of the type of adaptation permitted herein, the underlying content must be referred to by its full original title and acronym, without exception. Any proposed changes to the title that might be desired for the permitted adaptation must be pre-approved in writing by WPS.
- (7) You agree to provide WPS with one copy of all articles (including research reports, convention papers, journal submissions, theses, etc.) that report on the SRS-2 use in your research. The articles should be marked to the attention of WPS Rights & Permissions. WPS reserves the right to cite or reference such reports; you will of course receive proper acknowledgment if we use your research results.
- (8) WPS acknowledges that you will need to adapt our copyrighted scoring key for the purpose of computerized evaluation of responses to your research instrument—and you have our authorization to do so provided you agree to destroy the adapted keys following completion of your research. Also, documentation for your computerized adaptation of the SRS-2 keys must bear the required copyright notice that will be provided to you by WPS.
- (9) You acknowledge that—by undertaking a licensed modification in format and/or content of WPS's proprietary, formally published material—you assume full and sole responsibility for the WPS content used within your study and related results determined as a result of the investigation. You further agree to indemnify WPS, its assignees and licensees, and hold each harmless from and against any and all claims, demands, losses, damages, liabilities, costs, and expenses, including legal fees, arising out of the use of WPS-published material from which your uses shall derive.
- (10) This agreement shall be governed by the laws of the State of California, in the County of Los Angeles. If any portion of this agreement that may be deemed as unenforceable or otherwise not applicable, all remaining clauses and content herein shall remain in full force.

Chloe Lack, MSc, BSc. Psychologist in Clinical Training University of Leeds November 19, 2020 Page Three of Three

Upon receipt of your license payment (see condition #2) with signature to this letter (see below), WPS will send to you a "Certificate of Limited-use Authorization" that will also include the required copyright notice that will need to appear on each reprint/viewing of the material.

NOTE: For the proper construction and use of your described research application, and to source the item content and scoring guidelines), please see your SRS-2 Manual (W-608M or W-608MP). In case you do not have (or have direct access to) the SRS-2 Manual, this message serves for the next 60 days as your authorization to purchase one at 20% Research Discount (and note that discounted orders cannot be completed over our website); if you have questions about ordering the Manual, contact WPS Customer Service at 800/648-8857 or 424/201-8800, weekdays 6:00am to 2:30pm Pacific Time.

WPS appreciates your research interest in the SRS-2, as well as your consideration for its copyright. Please feel free to contact me if you have any questions. I look forward to your reply.

Chloe Lack, MSc, BSc. For: University of Leeds	Date
Chloe Lack	18/12/2020
I agree to the above.	
Fred Dinkins Date: 2020.11.19 15:50:26 -08'00' Rights & Permissions Manager	
Sincerely yours, Digitally signed by Fred Dinkins	

Appendix J: Data Cleaning

- There were a wide range of gender descriptors. Nuances in spelling were changed to ensure descriptors were uniform (e.g., Demi boy and demi-boy were changed to Demi-boy).
- Participant 57 entered 'Girl' for Q2 which was recoded to 'female'.
- Participant 53 entered a date in the Q2 instead of 'sex'. This was coded as 'missing data' and was excluded from analyses requiring assigned sex at birth.
- Participant 4 entered 'Make' for Q2 which was presumed to be a typographical error and changed to 'Male'.
- Participant 18 left Q4 blank so they were excluded from any analyses requiring this information.
- Participants 1, 46, 51 & 61 responded with '6 months' for Q4 which was changed to '1 year'.
- Participant 2 responded with '1 and a half years' for Q4 which was changed to '2 years'.
- Participant 5 responded with '~1 year 6 months' for Q4 which was changed to '2 years'.
- Participant 7 responded with 'I've identified with it myself for probably about 4/5 years but only accepted it a year or so ago' for Q4 which was changed to '5 years'.
- Participant 14 responded with 'Around 9 months' for Q4 which was changed to '1 year'.
- Participant 16 responded with '~1 year, maybe slightly more' for Q4 which was changed to '1 year'.
- Participant 17 responded with 'About three years' for Q4 which was changed to '3 years'.
- Participant 19 responded with '5 5.5 years' for Q4 which was changed to '5 years'.
- Participant 20 responded with "officially 5 years, unofficially 10 years' for Q4 which was changed to '10 years'.
- Participant 21 responded with 'I've felt it somewhat since I was little, but properly known for over a year' for Q4 which was changed to '1 year'.
- Participant 26 responded with 'A couple of months' for Q4 which was changed to 'less than 1 year'.
- Participant 30 responded with '5 ½ years -' for Q4 which was changed to '6 years'.
- Participant 31 responded with '1 year and a half but have acted as male since 3' which was changed to '2 years'.
- Participant 35 responded with 'Almost 2 years' for Q4 which was changed to '2 years'.
- Participant 41 responded with '5-6' for Q4 which was changed to '6 years'.
- Participant 43 responded with '5 months' for Q4 which was changed to 'Less that 1 year'.
- Participant 45 responded with 'I've never had a concept of gender, so forever' for Q4 which was changed to '17 years' based on current age.
- Participant 52 responded with 'Always' for Q4 which was changed to '16 years' based on their current age.
- Participant 53 responded with 'since I was born' for Q4 which was changed to '18 years' based on their reported age.
- Participant 56 responded with 'About three years' for Q4 which was changed to '3 years'.
- Participant 59 responded with '2-3 years' for Q4 which was changed to '3 years'.
- Participant 60 & 78 responded with '8 months' for Q4 which was changed to '1 year'.
- Participant 71 responded with '2 ½ to 3 years' for Q4 which was changed to '3 years'.

- Participant 87 responded with 'Non binary 1 year and identified as Trans for 3/4 years' for Q4 which was changed to '4 years'.
- Participant 88 responded with 'Around a year' for Q4 which was changed to '1 year'.
- Participant 97 responded with '7 weeks' for Q4 which was changed to 'less than 1 year'.
- Participant 99 responded with '7-8 months' for Q4 which was changed to '1 year'.
- Participant 208 responded with '3-4 years' for Q4 which was changed to '4 years'.
- Participant 235 responded with '5 years in March 2022' for Q4 which was changed to '5 years'.
- Participant 241, 269 and 283 responded with '4-5 years' which was changed to '5 years.
- Participant 256 responded with '5 -6 years' for Q4 which was changed to '6 years'.
- Participant 258 responded with '13-14 years' for Q4 which was changed to '14 Years'.
- Participant 261 responded with 'Felt different (associated more with males) since age of 7 but have been openly identifying as male since I was 13 years old. Openly out as transgender for 5 years now' for Q4 which was changed to '5 years'.
- Participant 270 responded with '3 months' for Q4 which was changed to 'Less than 1 year'.
- Participant 271 responded with 'socially around 4 years, privately I specifically identified as female from around the age of 7' for Q4 which was changed to '10 years' accounting for their current age.
- Participant 27, 31, 30, 45, 55, 59, 58, and 87 and accessed the survey via the link from the community advert and responded 'yes' to Q9 and were recoded as 'GIDS' sample.
- Participant 12 did not enter a value for item 57 on the SRS-2 which was re-coded to the median value "0".
- Participant 59 only responded to two items on the SRS-2 so this was excluded from the analysis.
- Participant 319 did not enter a value for item 62 on the SRS-2 which was re-coded to the median value "0".
- Participant 215 did not enter a value for item 45 on the SRS-2 which was re-coded to the median value "1".
- Participant 269 did not enter a value for item 29 on the SRS-2 which was re-coded to the median value "0".
- Participant 269 did not enter a value for item 31 on the SRS-2 which was re-coded to the median value "0".
- Participants 5, 227, 30, 35, 267 we allocated "In full time Education or Employment".
- Participants 55, 636, 25, 14, 21, 44 and 66 we allocated "Out of full time Education or Employment".

Appendix K: Letter from Head of Data and Research



Tavistock Centre 120 Belsize Lane, London, NW3 5BA

Tel: +44 (0)20 8938 2030

Tavistock Leeds Base 8 Park Square East, Leeds, LS1 2LH Tel: 0113 2471955

> Fax: +44 (0)20 7794 1879 Email: gids@tavi-port.nhs.uk

Web: www.tavistockandportman.nhs.uk

To whom it may concern,

I am writing this supporting statement for Chloe Lack, a trainee clinical psychologist who undertook her research project in the Gender Identity Development Service (GIDS).

Chloe completed her project with the service by first attending team meetings to present her study and recruitment criteria. Clinicians were asked to share patient IDs with the GIDS Research Team who could ensure that service users were not taking part of other research and had consented to be contacted about research. If so, the contact details would then be shared with Chloe who could get in touch about the study.

Chloe was met with a number of issues in recruitment that meant that her final sample for analysis was much smaller than that anticipated. A number of factors will have played a huge role in her issues with recruitment and are detailed below:

- 1. COVID-19 pandemic and recruitment owing to moving to an online appointment system this meant sharing details about the study with young people was very difficult owing to priorities to adjustment for online appointments by clinicians
- 2. A knock on effect owing to COVID-19 and recruitment unusually for the Service, a large number of trainees were recruiting for their projects at the same time which made it incredibly difficult for clinicians to hold in mind and put forward so many different young people
- 3. Chloe was recruiting during the Judicial Review, from the trial to verdict to appeal this process and all it entailed was a time of immense pressure for service users and clinicians alike, as such, recruitment and sharing research was greatly impacted
 - a. This also accounts for the low uptake rate when young people were put forward for contact
- 4. The subsequent CQC Transformation Programme work (during which Chloe was recruiting) was a time of huge upheaval and change in the Service, this has meant changes to both clinicians and service users, making it difficult to hold the study in mind

It is important to note the impact that this period of time has had on the service users; in spite of all of the change clinicians have endured during the time Chloe has been collecting data, they still managed to put a huge number of young people forward for Chloe's study. The issue was largely in young people unfortunately not responding to consent to be contacted for Chloe's research, with

most emails from the Research Team in GIDS going unanswered. This likely reflects the sensitive circumstances that young people and caregivers were (and arguably currently still are) enduring. This goes beyond the changes in process which were requested to be carried out owing to the judicial review and NHS England requirements, but extends to press coverage of these events, which were not only largely persecutory, but woefully inaccurate. Such constant exposure for service users in the context of their own lives and lived experience, likely resulted in a reluctance to wish to engage with research.

Yours Sincerely,

Dr. Una Masic Head of Data and Research Gender Identity Development Service