Nonbinary

Introduction

Nonbinary is used as an umbrella term referring to individuals who experience their gender as outside of the gender binary. This includes people who may have more than one gender identity (i.e. bigender), not have a gender identity, have a neutral gender identity (i.e. agender or neutrois), have gender identities that encompass or blend elements of other genders (e.g., polygender, demi-boy, demi-girl), and/or have a gender that changes over time (e.g., genderfluid) (Kuper et al., 2014; Richards et al., 2016; Richards et al., 2017; Vincent, 2019). Nonbinary also functions as a gender identity in its own right. Genderqueer, first used in the 1990s, is an identity category somewhat older than nonbinary - which first emerged in approximately the late 2000s (Nestle et al., 2002; Wilchins, 1995). Genderqueer may sometimes be used synonymously with nonbinary, or may communicate a specific consciously politicized dimension to a person's gender. Nonbinary people may identify to varying degrees with more than one gender identity, e.g., nonbinary man/woman, nonbinary and genderfluid (James et al., 2016; Kuper et al., 2012). While transgender is often used as an umbrella term inclusive of nonbinary people, not all nonbinary people consider themselves to be transgender for a range of reasons, including because they consider transgender to be part of the gender binary, or because they do not feel "trans enough" to describe themselves as transgender. Some nonbinary people are unsure or ambivalent about whether they would describe themselves as transgender (Darwin, 2020; Vincent, 2019).

Nonbinary people may use the pronouns they/them/theirs, or neopronouns which include e/emm/eir, ze/hir/hir, er/ers/erself among others (Moser & Devereux, 2019; Vincent, 2018). Some nonbinary people use a combination of pronouns (either deliberately mixing usage, allowing free choice, or changing with social context), or prefer to avoid gendered pronouns entirely, instead using their name. Additionally, some nonbinary people use she/her/hers, or he/him/his, sometimes or exclusively, whilst in some regions in the world descriptive language for nonbinary people does not (yet) exist.

Recent studies suggest that nonbinary people comprise roughly 25% to over 50% of the larger transgender population, with samples of youth reporting the highest percentage of nonbinary people (Burgwal et al., 2019; James et al., 2016; Watson, 2020). Within recent studies of transgender adults, nonbinary people tend to be younger than binary-oriented transgender people. Within studies of both youth and adults, nonbinary people are more likely to have been assigned female at birth (Burgwal et al., 2019; James et al., 2016; Watson, 2020; Wilson & Meyer, 2021).

Understanding gender identities and gender expressions as a non-linear spectrum

Nonbinary genders have long been recognized historically and cross-culturally (Herdt, 1994; Vincent & Manzano, 2017). Many gender identity categories are culturally specific and cannot be easily translated from their context, either linguistically, or in relation to the Western paradigm of gender. From the 1950s, within contemporary Western contexts, gender was used to reference the socially-constructed categorization of behaviors, activities, appearance, etc. in relation to a binary model of male/man/masculine, and female/woman/feminine. However, gender now has a wider range of possible meanings, appreciating interrelated yet distinguishable concepts, including gendered biology (sex), gender roles, gender expression, and gender identity (Vincent, 2020). Aspects of gender expression that might traditionally be understood culturally as 'masculine', 'feminine', or 'androgynous' may be legitimately expressed among people of any and all gender identities, whether nonbinary or not. For example, a trans woman is no less a woman because of her clothing choices, name choice, etc. A person's gender nonconformity in relation to cultural expectations should neither be viewed as a cause for concern nor assumed to be indicative of clinical complexity – for example, a nonbinary person assigned male at birth (AMAB) wearing feminine-coded clothing, using she/her pronouns, but keeping a masculine-coded first name.

Modelling gender as a spectrum offers greater nuance than a binary model. However, there remain significant limitations in a linear spectrum model that can lead to uncritical generalisations about gender. For example, while it is intuitive to position the 'binary options' (man/male, woman/female) at either end of such a continuum, doing so situates masculinity as oppositional to femininity, failing to accommodate gender neutrality, the expression of masculinity and femininity simultaneously, and genderqueer or non-Western concepts of gender. It is essential that health professionals do not view nonbinary or gender diverse identities as 'partial' articulations of trans manhood (in nonbinary people AFAB) or trans womanhood (in non-binary people AMAB), or definitively as 'somewhere along the spectrum of masculinity/femininity'; some non-binary individuals consider themselves outside male/female dichotomization altogether. A *non-linear* spectrum indicates that differences of gender expression, identity, or desires around gender affirmation between clients should not be compared for the purposes of situating them along a linear spectrum. Additionally, the interpretation of gender expression is subjective, and what may be experienced or viewed as highly feminine by one person, may not be viewed as such by another (Vincent, 2020). Health professionals benefit from avoiding assumptions about how each client conceptualizes their gender, and being prepared to be led by a given client's personal understanding of gender as it relates to the client's gender identity, expression, and any need/desire for medical care.

The gender development processes experienced by all transgender people regardless of their relationship to a gender binary appear to share similar themes (e.g., awareness, exploration, meaning making, integration), but the timing, progression, and personal experiences associated with each of these processes vary both within and across groups of transgender and nonbinary people (Kuper et al., 2018; Kuper et al., 2019; Tatum et al., 2020). Sociocultural and intersectional perspectives can be helpful at contextualizing gender development and social transition, including how individual

experiences are shaped by the social and cultural context and how they interact with additional domains of identity and personal experience.

The need for access to gender affirming care

Some nonbinary people seek gender affirming care to alleviate gender incongruence and increase body satisfaction through medical intervention. Some nonbinary people may feel that a certain treatment is necessary for them (Beek et al., 2015; Jones et al., 2019; Köhler et al., 2018), whilst others do not (Burgwal & Motmans, 2021; Nieder et al., 2020), and the proportion of nonbinary people who seek gender affirming care remains unclear. It is the role of the health professional to provide information about existing medical options (and their availability) that might help alleviate gender incongruence and increase body satisfaction without making assumptions about which treatment options may best fit each individual person.

Motivations for accessing (or not accessing) gender affirming medical interventions, including hormone treatment and/or surgeries, are heterogeneous and potentially complex (Burgwal & Motmans, 2021; Vincent, 2019, 2020) and should be explored collaboratively before making decisions about physical interventions. The need of an individual to access gender-affirming medical procedures cannot be predicted by their gender role, expression, or identity. For example, some transgender women have no desire or need of vaginoplasty, while some non-binary individuals AMAB may need and benefit from that same intervention. Further, nonbinary people seeking gender affirming care associated closely with a transition pathway from their assigned sex/gender to the other binarily-recognised category (i.e., estrogen prescription and vaginoplasty for someone AMAB) does not undermine the validity of their non-binary identity.

While barriers to care remain a widespread for many transgender people, nonbinary people appear to experience particularly high rates of difficulty accessing both mental health and gender affirming medical care (Clark et al., 2018; James, 2016). Many non-binary people report having experiences with health professionals who were not affirming of their non-binary gender, including experiences where health professionals convey beliefs that their gender is not valid, or they are fundamentally more difficult to provide care for (Valentine, 2016; Vincent, 2020). Nonbinary people may face provider assumptions that they do not need or want gender affirming treatment (Kcomt et al., 2020; Vincent, 2020) and have described experiencing pressure to present themselves as trans men or trans women (within a binary framework of gender) in order to access treatment (Bradford et al., 2019; Taylor et al., 2019). At times, nonbinary people find themselves educating the provider from whom they are seeking services despite the inappropriateness of providers relying primarily on their patients for education (Kcomt et al., 2020). In comparison to binary-oriented transgender people, Burgwal and Motmans (2021) found that nonbinary people experienced more fear of prejudice from healthcare providers, less confidence in the services provided, and greater difficulty knowing where to go to for care. Studies in both Europe and US have shown that nonbinary individuals tend to delay care more often than binary transgender men or women, with fear of

insensitive or incompetent treatment being the most cited reason (Burgwal & Motmans, 2021; Grant et al., 2011). Nonbinary people also appear less likely to disclose their gender identity to their health-care providers than other trans people (Kcomt et al., 2020). Clinical guidance is now developing to assist providers in adapting gender affirming therapeutic care to meet these unique experiences of nonbinary people (Matsuno, 2019; Rider, 2019).

The need for an appropriate level of support

Providing gender affirming care to nonbinary people goes beyond the provision of specific gender affirming interventions such as hormone therapy or surgery, and involves supporting the overall health and development of nonbinary people. Minority stress models have been adapted to conceptualize how the gender-related stressors experienced by transgender people are associated with physical and mental health disparities (Testa, 2017). Nonbinary people appear to experience minority stressors that are both similar to and unique from those experienced by binary-oriented transgender people. Both nonbinary and binary-oriented transgender people report experiences of discrimination, victimization, and interpersonal rejection (James, 2016) as well as bullying within samples of youth (Witcomb et al., 2019; Human Rights Campaign, 2018). However, the prevalence of these experiences may vary across groups and appears influenced by additional intersecting characteristics. For example, Newcomb (2020) found that trans women and nonbinary youth AMAB experienced higher levels of victimization than trans men and nonbinary youth AFAB, with nonbinary youth AMAB reporting the highest levels of traumatic stress. In a second study, Poquiz (2021) found that trans men and women experienced higher levels of discrimination than nonbinary people. In contrast, Johnson (2020) reported that experiences of invalidation are particularly high among nonbinary people, e.g., statements or actions conveying a belief that nonbinary identities are not “real” or are the result of a “fad” or “phase,” and nonbinary people appear less likely than binary trans people to have their correct pronouns used by others. Similarly, nonbinary people have described feeling “invisible” to others (Conlin, 2019, Taylor, 2018) and one study found that nonbinary youth reported lower levels of self-esteem in comparison to binary-oriented trans youth (Thorne et al., 2019).

Given nonbinary identity narratives may be less widely available than more binary-oriented identity narratives, nonbinary people may have less resources available to explore and articulate their gender-related sense of self. For example, this might include access to community spaces and interpersonal relationships where nonbinary identity can be explored, or access to language and concepts that allow more nuanced consideration of nonbinary experiences (Bradford et al., 2018; Fiani & Han, 2019; Galupo et al., 2019).

Gender affirming medical interventions for nonbinary people

In contexts where a particular medical intervention does not have established precedent, it is important that before the intervention is considered, the individual is provided with an overview of available information, including recognition of potential knowledge limits. It is equally important to undertake and document a comprehensive discussion of the desired physical changes and the potential limitations in achieving those attributes, as well as the implication that any given intervention may or may not enhance an individual's ability to express their gender.

With regards to estrogen prescription for nonbinary people AMAB, it is important to note that the possibility of breast growth cannot be avoided (Seal, 2017). Although the extent of growth is highly variable, this should be made clear if a nonbinary person seeks some of the other changes associated with estrogen (such as softening of skin and reduction in facial hair growth), but does not want, or is ambivalent about, breast growth. Likewise, for nonbinary people AFAB who may wish to access testosterone in order to acquire some changes but not others, it should be recognized that if facial hair development is desired, genital growth is inevitable (Seal, 2017). The time frame for taking testosterone means that these changes are likely also to be accompanied by an irreversible vocal pitch drop, though the extent of each is individual (Vincent, 2019; Ziegler et al., 2018). A vocal pitch drop without the development of body hair, is another such challenge.

If hormonal therapy is discontinued and gonads are retained, many physical changes will revert to pre-hormone therapy status as gonadal hormones once again take effect, including reversal of amenorrhoea and body hair development in nonbinary people AFAB, and decrease in muscular definition and erectile dysfunction in nonbinary people AMAB. Other changes will be permanent such as "male-pattern" baldness, genital growth, and facial hair growth in nonbinary people AFAB, or breast development in nonbinary people AMAB (Hembree et al., 2017). These will need further interventions to reverse such as electrolysis or mastectomy, and are sometimes described as "partially reversible" (Coleman et al., 2012). As the implications of using low-dose hormone therapy are not documented in this patient population it is important to consider monitoring of cardiovascular risk and bone health if low-dose hormone therapy is used. If neither testosterone nor estrogen expression is desired, inhibition of estrogen and/or testosterone production is possible. The implications of this with regards to increased cardiovascular risk, reduced bone mineralization, and risk of depression should be discussed and measures taken to mitigate risk (Brett et al., 2007; Vale et al., 2010; Wassersug & Johnson, 2007). See also the Chapter on care for eunuch-identified people in this regard.

Summary of Recommendations

Statement 1: We recommend that health professionals should provide nonbinary people with individualized assessment and treatment that affirms their experience of gender.

Statement 2: We recommend that health professionals should consider gender affirming medical interventions (hormonal treatment or surgery) for nonbinary people in the absence of social gender transition.

Statement 3: We recommend that health professionals should consider gender affirming surgical interventions in the absence of hormonal treatment unless hormone therapy is required to achieve the desired surgical result.

Statement 4: We recommend that health professionals provide information to nonbinary people about the effects of hormonal therapies/surgery on future fertility and options for fertility preservation prior to starting hormonal treatment or undergoing surgery.

All Delphi statements have been recommended, based on clinical consensus against the emerging background literature in health care provision for non-binary individuals as well as a favorable risk-benefit ratio of providing such clinical services.

Statement 1:
We recommend that health professionals should provide nonbinary people with individualized assessment and treatment that affirms their nonbinary experiences of gender.

An individualized assessment with a nonbinary person starts with understanding of how they experience their own gender, and how this impacts their goals for the care they are seeking. How individuals conceptualize their gender related experiences are likely to vary across groups and cultures and may incorporate experiences associated with other intersecting aspects of identity (e.g., age, sexuality, race, ethnicity, socioeconomic status, disability status) (Kuper et al., 2014; Subramanian et al., 2015).

Health professionals should avoid making a priori assumptions about any client's gender identity, expression, or desires for care. They should also be mindful that a client's nonbinary experience of gender may or may not be relevant to assessment and treatment-related goals. The extent to which the client's gender is relevant to their treatment goals should determine the level of detail at which their gender identity is explored. For example, when seeking care for a presenting concern wholly unrelated to gender, simply determining the correct name and pronouns may be sufficient (Knutson et al., 2019). When addressing a concern for which current or past hormonal or surgical status is relevant, more detail may be needed, even if the concern is not specifically gender related.

Clinical settings and approaches that are welcoming and reflective of the diversity of genders, affirm the experiences of gender of nonbinary people. Ensuring that clinic and provider information (e.g., websites), forms (e.g., intake surveys), and other materials

are inclusive of nonbinary identities and experiences conveys that nonbinary people are welcome and recognised (Hagen & Galupo, 2014). Having transgender inclusive guidelines for name and pronouns, ensuring privacy at the reception desk, setting up alternatives for listing legal names in digital databases, installing gender-neutral toilets, and setting up alternatives to calling out the legal name in the waiting room are examples of this approach (Burgwal et al., 2021). In care settings, it is important that preferences for names, pronouns, and other gender-related terms are asked, both initially and on a regular basis as they may vary over time and circumstance.

Health professionals are encouraged to adopt an approach that focuses on strengths and resilience. Increasingly critiques are emerging regarding health professionals over-focus on gender-related distress, arguing that it is also important to consider experiences of increased comfort, joy, and self-fulfilment that can result from self-affirmation and access to care (Ashley, 2019; Benestad, 2010). In addition to utilizing diagnoses when needed to facilitate access to care, health professionals are encouraged to collaboratively explore with clients this broader range of potential gender-related experiences and how they may fit with treatment options (Motmans et al., 2019). For both nonbinary and binary-oriented people, resiliency factors such as supportive relationships, participation in communities that include similar others, and identity pride are essential to consider as they are associated with a range of positive health outcomes (Bowling et al., 2019; Budge, 2015; Johns et al., 2018).

Awareness of the limitations that exist in the tools providers have historically used to assess transgender people's experience of dysphoria is important as they may be particularly pronounced for many nonbinary people. Most gender related measures assume clients experience their gender in a binary way, among other concerns (e.g., Recalled Gender Identity Scale, Utrecht Gender Dysphoria Scale). Several newer measures have been developed in an attempt to better capture the experiences of nonbinary people (McGuire, 2018; McGuire, 2020); however, open-ended discussion is likely to provide a deeper and more accurate understanding each individual's unique experiences of dysphoria and their associated care needs. Similarly, while more recent iterations of diagnostic categories (i.e., "gender dysphoria" in the DSM 5 and "gender incongruence" in ICD-11) were intended to be inclusive of people with nonbinary experiences of gender, they may not adequately capture the full diversity and scope of experiences of gender-related distress, particularly for nonbinary people. In addition to distress associated with aspects of one's physical body and presentation (including features that may be existing or absent), distress may arise from how one experiences their own gender, how one's gender is perceived within social situations, and/or from experiences of minority stress associated with one's gender (Winters & Ehrbar, 2010). Nonbinary peoples' experiences in each of these areas may or may not be similar to those of more binary-oriented people.

A person-centered approach for affirming care includes specific discussion of how different interventions may or may not shift the client's comfort with their own experience of gender, and how their gender is perceived by others. Nonbinary people can face challenges in reconciling their personal identities with the limits of the medical

treatments available and can also encounter confusion and intolerance from society regarding their desired gender presentations (Taylor et al. (2019). Emerging research suggests that medical treatment needs of non-binary people are particularly diverse, with some reporting desire for treatments that have typically been associated with transition trajectories historically associated with trans men and women, and some reporting desire for alternative approaches (e.g., low dose hormone therapy, surgery without hormone therapy), some reporting a lack of interest in medical treatment, and some reporting feeling unsure about their desires (Burgwal & Motmans, 2021; James et al., 2016). Conceptualizing assessment as an ongoing process is particularly important given gender-related experiences and associated needs may shift throughout the lifespan. Given the ongoing evolution in treatment options and knowledge of treatment effects, particularly for nonbinary people, clients will benefit from providers who regularly seek up to date knowledge and convey these updates to their clients.

Statement 2:

We recommend that health professionals should consider gender affirming medical interventions (hormonal treatment or surgery) for nonbinary people in the absence of "social gender transition."

Previous requirements for accessing hormone treatment and surgery, such as "living in a gender role that is congruent with one's gender identity," do not reflect the lived experiences of many transgender people (Coleman et al., 2012). Due to the entrenched nature of the gender binary in most contemporary Western cultures, one can typically only be understood by others as a man or woman within most settings (Butler, 1993). Hence, the visibility of nonbinary embodiments and expressions is limited. This is due to gendered cues being almost always understood in reference to a gender binary (Butler, 1993). Presently, it can be difficult for nonbinary people to be reliably recognised as their gender via visual cues associated with their gender expression (e.g. clothing, hair). However, androgyny or gender nonconformity may be communicated by the mixing or combining of cultural markers with traditionally masculine or feminine connotations. Because there is no commonly recognized 'nonbinary category' within most contemporary Western, global north cultural contexts, nonbinary visibility often necessitates explicit sharing of one's gender with others or use of cues that may be interpreted as gender nonconformity (but not necessarily nonbinary).

For these reasons, framing access to medical care in the context of someone experiencing a "social gender transition" where they are "living in a gender role that is congruent with one's gender identity" is not in line with the way many transgender people understand themselves and their personal transition process. For some, "living in a gender role that is congruent with one's gender identity" does not involve changes in name, pronouns, or gender expression even as medical intervention may be necessary. Even if a person is able to live in ways that are congruent with their gender identity, it may be difficult for an outside observer to assess this without learning directly from that person how they understand their own experience in this regard. Expectation of "social gender transition" may be unhelpful when considering eligibility for gender

affirming care, such as hormones and surgery, and rigid expectations of what a “social gender role transition” “should” look like can be a barrier to care for nonbinary people. There is no logical requirement that gender affirming medical interventions can only be done once a person legally changes their name, changes the gender marker on their identity documents, or wears or refrains from wearing particular items of clothing. A requirement that someone disclose their gender identity in all circles of their lives (family, work, school, etc.) in order to access medical care can place them at risk if it is not safe to do so and may not be consistent with their goals.

Statement 3:
We recommend that health professionals should consider gender affirming surgical interventions in the absence of hormonal treatment, unless hormone therapy is required to achieve the desired surgical result.

The trajectory of ‘hormones before surgery’ is an option across a range of surgical interventions. Some nonbinary people will seek gender affirming surgical treatment to alleviate gender incongruence and increase body satisfaction (Beek et al., 2015; Köhler et al., 2018; Jones et al., 2019; Burgwal & Motmans, 2021), but do not want or are unable to have hormonal treatment due to other medical reasons (Nieder et al., 2020). Currently, it is unknown for which proportion of nonbinary people these options apply.

Perhaps the surgery which has some specific association with nonbinary people (rather than sought by trans men or undergone by some cisgender women) is mastectomy in nonbinary people AFAB who have not taken testosterone; some nonbinary people AFAB may desire breast reduction (McTernan et al., 2020). An example of a surgery for which at least a period of hormone therapy may be necessary to the result is metoidioplasty which enhances the enlarged clitoris produced by testosterone therapy. See the surgical chapter for more detail on whether hormone therapy is necessary for various surgeries. Procedures addressing the internal reproductive system include hysterectomy, unilateral or bilateral salpingo-oophorectomy, and vaginectomy. Hormone therapy is not required for any of these procedures, but hormone replacement therapy (either with estrogens, testosterone or both) is advisable in those individuals undergoing a total gonadectomy to prevent adverse effects on their cardiovascular and musculoskeletal system (Hembree et al., 2017; Seal, 2017). See also the chapter on treatment of eunuch-identified individuals for those who choose to forego hormone replacement therapy. For phalloplasty, while there is no surgical requirement per se for a minimum period of testosterone treatment, virilization (or the absence of virilization) of the clitoris and labia minora may impact choice of surgical technique and influence surgical options. See also the Surgical Chapter for more information.

Nonbinary AMAB clients should be informed that commencing estrogen therapy post-surgically with no prior history of estrogen therapy may influence (perhaps adversely) the surgical result (Kanhai, Hage, Asscheman et al., 1999; Kanhai, Hage, Karim et al., 1999). Nonbinary people AMAB requesting a bilateral orchiedectomy do not require estrogen therapy for a better outcome (Hembree et al., 2017). In these contexts it is

good practice to inform clients of the risks and benefits of hormone replacement therapy (estrogens, testosterone, or both) in preventing adverse effects on the cardiovascular and musculoskeletal system as well as alternative treatment options, such as calcium plus vitamin D supplementation to prevent osteoporosis (Hembree et al., 2017; Seal, 2017; Weaver et al., 2016). See also the chapter for care of eunuch identified people for those who chose to forgo hormone replacement therapy. In the case of vaginoplasty, individuals should be advised that lack of testosterone-blocking therapy may cause postoperative hair growth in the vagina when hair-bearing skin graft and flaps have been used (Giltay & Gooren, 2000). Additional surgical requests in nonbinary people AMAB include penile-preserving vaginoplasty, vaginoplasty with preservation of the testicle(s), and procedures to create a “flat front” (i.e., penectomy, scrotectomy, orchiectomy, etc…). The surgeon and individual seeking treatment should work collaboratively with the multidisciplinary team so as to understand the individual’s goals and expectations as well as benefits and limitations of the intended (or requested) procedure and make decisions on an individualized basis.

Statement 4:
We recommend that nonbinary people have information about and access to fertility preservation prior to starting hormonal treatment.

All non-binary individuals, who seek gender affirming hormone therapies should be offered information and guidance about fertility options (Hembree et al., 2017; Quinn et al., 2021; De Roo et al., 2016; Defreyne et al., 2020a; Defreyne et al., 2020b; Nahata et al., 2017). It is important to discuss the potential impact of hormone therapy on fertility prior to initiating hormone therapy. This discussion should include fertility preservation options, to what extent fertility may or may not be regained if hormone therapy is ceased, and that hormone therapy per se is not birth control. See the Chapter on Reproductive Health for more information.

Recent studies suggest that nonbinary individuals are less likely to access care and make their desires for potential interventions heard (Beek et al., 2015; Taylor et al., 2019). As such, it stands to reason that any gender diverse individual should be offered information on current options and techniques for fertility preservation, ideally prior to commencing hormone treatment as the quality of the sperm or eggs may be impacted by exposure to hormones (Hamada et al., 2015; Payer et al.,1979), although this should in no way preclude later information seeking or discussion, as there is evidence that fertility is still possible for individuals taking estrogen and testosterone (Light et al., 2014). A decision by a nonbinary or gender diverse person that fertility preservation or counselling is not desired or needed should not be used as a basis for denying or delaying access to hormone treatment.

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