

1 doi: 10.4085/1062-6050-0311.22

2  
3 **The Role of the Athletic Trainer in Providing Care to Transgender and Gender Diverse**  
4 **Patients: Foundational Knowledge and Disparities – Part I**

5  
6 **Sean Rogers, DAT, LAT, ATC**

7 Associate Professor, Coordinator of Clinical Education  
8 Drake University  
9 2507 University Ave, Des Moines, IA 50311  
10 Des Moines, IA 50311  
11 515-271-1866  
12 Sean.rogers@drake.edu  
13 Twitter: @DATsearog

14  
15 **Rebecca M. Lopez, PhD, ATC, CSCS**

16 Associate Professor, Athletic Training  
17 Department of Orthopaedics & Sports Medicine  
18 University of South Florida  
19 Twitter: @rlopez1010

20  
21 **Ashley Crossway DAT, ATC**

22 Assistant Professor, Coordinator of Clinical Education  
23 State University of New York College at Cortland  
24 [Ashley.Crossway@cortland.edu](mailto:Ashley.Crossway@cortland.edu)  
25 Twitter: @crossway54

26  
27 **Dani Moffit, PhD, LAT, ATC, FNAP**

28 Professor, Athletic Training Program Director  
29 Idaho State University  
30 [moffdani@isu.edu](mailto:moffdani@isu.edu)  
31 Twitter: @DocMoff8

32  
33 **Jennifer Sturtevant, MBA, LAT, ATC**

34 Ambulatory Services Supervisor, Athletic Training Coordinator  
35 Tufts Medicine at MelroseWakefield Hospital  
36 [jsturtevant@melrosewakefield.org](mailto:jsturtevant@melrosewakefield.org)  
37 Twitter: @sturdy2025

38  
39 **Anisa Hansen, PharmD**

40 Professor, Pharmacy Practice  
41 Drake University  
42 [Anisa.hansen@drake.edu](mailto:Anisa.hansen@drake.edu)  
43  
44

45 **Acknowledgments:** The authors would like to thank Cloe Klaus MS, LAT, ATC (University of  
46 Norte Dame) for their valuable contributions as an external reviewer for this narrative literature  
47 review.

48  
49 Readers should keep in mind that the in-production articles posted in this section may  
50 undergo changes in the content and presentation before they appear in forthcoming  
51 issues. We recommend regular visits to the site to ensure access to the most current  
52 version of the article. Please contact the JAT office ([jat@slu.edu](mailto:jat@slu.edu)) with any questions.

53  
54

Online First

1 **Title:** The Role of the Athletic Trainer in Providing Care to Transgender and Gender Diverse  
2 Patients: Foundational Knowledge and Disparities – Part I

3 **Abstract:**

4 Transgender and Gender Diverse (TGD) patients experience discrimination, harassment,  
5 marginalization, and minority stress at greater rates than their cisgender counterparts leading to  
6 numerous health and healthcare disparities that negatively impact wellbeing and access to quality  
7 healthcare.<sup>1</sup> While in an opportune position to improve health equity for TGD patients under  
8 their care, many athletic trainers (ATs) report having little to no formal education on TGD  
9 patient care leading to a reduction in self-reported competence. As such, to fill this knowledge  
10 gap, the purpose of the first part of this two-part narrative literature review is to 1) provide  
11 readers with foundational information and terminology, 2) explore relevant health and healthcare  
12 disparities, and 3) identify the role of the AT within an interprofessional care team treating TGD  
13 patients.

14 **Key Words:** TGD, LGBTQIA+, health disparities, healthcare disparities, minority stress, gender  
15 identity, gender expression

16 **Key Points:**

- 17 • The use of correct and appropriate terminology relevant to a patient's gender identity,  
18 gender expression, and sexual orientation is important to providing equitable and  
19 informed care to TGD patients.
- 20 • The gender affirmation framework is a multi-dimensional model that includes social,  
21 legal, and medical actions and interventions that TGD patients may or may not choose to  
22 undergo to affirm their gender identity.

- 23       • Current literature demonstrates that TGD patients suffer from higher rates of mental  
24       health conditions, physical violence, and substance use and misuse conditions while  
25       simultaneously reporting higher instances of denial of care, discrimination, and  
26       harassment when seeking care from healthcare providers.
- 27       • Individualized interprofessional care teams are valuable for providing high-quality  
28       patient care to TGD individuals while improving health equity.

Online First

## 29 Introduction

30 Current literature demonstrates that individuals who identify as lesbian, gay, bisexual,  
31 transgender, queer, intersex, and asexual (LGBTQIA+) experience health and healthcare  
32 disparities at a higher rate than their cisgender and heterosexual peers.<sup>2,3</sup> These disparities are  
33 often attributed to minority stress, discrimination, harassment, and structural inequities that  
34 disproportionately impact transgender and gender diverse (TGD) individuals.<sup>1</sup> While notable and  
35 widespread disparities exist for all individuals within the LGBTQIA+ population, historical  
36 evidence demonstrates that TGD individuals are confronted with the highest rates of structural  
37 discrimination, violence, and harassment due to their gender identity.<sup>3,4</sup> These disparities are  
38 even more prevalent for TGD people who also experience discriminations and disadvantages due  
39 the intersectional effect of their social identities (e.g., ethnicity, socioeconomic status,  
40 (dis)abilities, sexual orientation, etc).<sup>5</sup>

41 Data collected through the United States Census Bureau's Household Pulse Survey in  
42 2021 estimates that more than 1% of the adult population of the United States identify as  
43 transgender, equating to nearly 2 million individuals.<sup>6</sup> This is a notable increase from a previous  
44 estimate of 1.3 million individuals in 2017.<sup>7</sup> This rapid demographic change is often attributed to  
45 incremental advances in TGD acceptance and visibility, which has led to increased willingness to  
46 self-identify over time.<sup>8</sup>

47 As the number of individuals who feel safe self-identifying as TGD increases, so does the  
48 need for athletic trainers (ATs) to be prepared to provide equitable, evidence-based, and patient-  
49 centered care. Unfortunately, current research has revealed that ATs, like other health care  
50 providers,<sup>9</sup> lack formal educational experiences related to this topic which has contributed to a  
51 lack of competence and confidence in many foundational areas required to treat this patient

52 population.<sup>10</sup> Illustrating the downstream effect of a lack of formal educational experiences, a  
53 recent study found that while ATs felt comfortable and competent providing care to transgender  
54 patients, there was a notable lack of competence in specific aspects of patient care.<sup>10</sup> These areas  
55 in which ATs reported a lack of competence included working collaboratively with an  
56 endocrinologist (36%), using appropriate terminology (45.6%), and the effects of hormone  
57 replacement therapy on sport participation (48.1%).<sup>10</sup> In the same study participants also reported  
58 that the majority of their education on TGD patient care came from informal sources such as  
59 media outlets (35.2%) and friends, family, and peers (33.7%).<sup>10</sup> A number of participants  
60 (35.2%) reported having never received any formal education on this topic whatsoever.<sup>10</sup> A lack  
61 of competence and confidence inevitably has an impact on patient care, as highlighted in a recent  
62 study exploring the experiences of transgender athletes seeking care from an AT.<sup>11</sup> It was found  
63 that TGD athletes regularly identified a lack of education on transgender needs in their ATs,  
64 which combined with unsupportive environments, lead to discomfort and avoidance of care.<sup>11</sup>

65 Despite the lack of formal education<sup>10</sup> and subsequent lack of self-reported preparation to  
66 care for this patient population,<sup>10,12</sup> current research shows that ATs do commonly express  
67 concern regarding the health and wellness of their TGD patients and desire further education to  
68 address their knowledge and practice gaps.<sup>12</sup> As such, the purpose of the first portion of this two-  
69 part narrative literature review was to 1) provide readers with foundational information and  
70 terminology, 2) explore relevant health and healthcare disparities, and 3) identify the role of the  
71 AT within an interprofessional care team treating TGD patients.

## 72 **Communication and Terminology**

73 When working with TGD individuals it is imperative to practice inclusive  
74 communication through the use of appropriate terminology. Current literature has demonstrated

75 that many TGD individuals have had negative experiences when engaging with health care  
76 providers. These negative experiences are often related to language, including the improper use  
77 of chosen name (i.e., deadnaming), inappropriate use of pronouns or honorifics (i.e.,  
78 misgendering), or non-inclusive electronic medical record forms.<sup>13</sup> A lack of adherence to  
79 inclusive communication practices, whether intentional or not, can lead to traumatic invalidation  
80 of TGD individuals in which their identity is disrespected.<sup>14,15</sup> Traumatic invalidation, coupled  
81 with frequent microaggressions and blatant discriminatory treatment, has led many TGD  
82 individuals to avoid seeking necessary medical care due to past negative experiences with health  
83 care providers.<sup>13,16</sup>

84 While the adoption of inclusive communication practices in clinical settings is a  
85 continuous and ever evolving process, the foundation of said practices come from a basic  
86 understanding of terminology. When discussing terminology, it is first important to understand  
87 the distinct difference between four terms that are often misunderstood and used  
88 interchangeably: sex assigned at birth, gender identity, gender expression, and sexual orientation.

### 89 **Sex Assigned at Birth**

90 At the time of birth, infants are assigned a sex by health care providers based on  
91 anatomical, chromosomal, and hormonal characteristics.<sup>17</sup> Infants are assigned either male,  
92 female, or intersex based on the aforementioned characteristics. Intersex individuals are those  
93 who are born with atypical chromosomal arrangements that may lead to differences in  
94 reproductive anatomy, hormone production, and secondary sex traits. It is important to recognize  
95 the differences between sex and gender, and not to use these terms interchangeably especially on  
96 electronic medical records and demographics forms.

### 97 **Gender Identity**

98 An individual's innermost self-identification as a man, woman, neither, or both is known  
99 as *gender identity*. An individual's gender identity may align with their sex assigned at birth (i.e.,  
100 cisgender) or it may differ to varying degrees. Individuals whose gender identity does not fit into  
101 the binary of man or woman may identify as *gender diverse*, a broad term representing the  
102 numerous diverse identities outside of the binary (i.e., man or women). While not an all-inclusive  
103 list, additional gender identities outside of the binary include, gender fluid, gender non-  
104 conforming, non-binary, and agender (Table 1). Some individuals who identify as TGD may  
105 choose to seek out gender-affirming care to better align their secondary sex characteristics with  
106 their gender identity. Patients may choose to undergo gender-affirming care for numerous  
107 reasons, one of which is to alleviate feelings of gender dysphoria, also known as gender  
108 incongruence.<sup>18</sup>

109 When providing gender-affirming care, or care to a patient who identifies as TGD, health  
110 care providers must understand that a patient's identity is uniquely their own, and as such must  
111 respect and validate that identity regardless of their familiarity with it. Similarly, healthcare  
112 providers must also acknowledge and combat the historical practice of pathologizing gender  
113 identities. While previous iterations of the Diagnostic and Statistical Manual (DSM) and  
114 International Statistical Classification of Diseases and Related Health Problems (ICD) provided  
115 diagnostic criteria and ICD codes for conditions such as 'transsexualism' and 'atypical gender  
116 identity disorder' that pathologized an individual's identity, this practice has since been revised  
117 to eliminate stigma and adopt a more evidence-based approach.<sup>19,20</sup> While TGD patients may still  
118 be diagnosed with gender dysphoria in order to receive insurance coverage for gender-affirming  
119 care, the new DSM guidelines and ICD-11 codes place an emphasis on the presence of clinically



120 significant feelings of incongruence to determine a diagnosis, instead of the patient’s gender  
 121 identity.<sup>19,20</sup>

122 **Table 1: Gender Inclusive Terminology**<sup>21-23</sup>

<b>Term*</b>	<b>Definition</b>
Assigned Female at Birth (AFAB)	An acronym often utilized in medical documentation to describe a transgender man or non-binary individual who was assigned female at birth.
Assigned Male at Birth (AMAB)	An acronym often utilized in medical documentation to describe a transgender woman or non-binary individual who was assigned male at birth.
Cisgender	The alignment of an individual’s gender identity aligns with their sex assigned at birth.
Gender Identity	An individual’s innermost self-identification as a man, woman, neither, or both which may or may not align with sex assigned at birth.
Gender Diversity	The extent to which an individual’s gender identity or expression differs from societal norms.
Gender Dysphoria	A clinically significant feeling of distress or discomfort in individuals whose gender identity differs from their sex and/or gender assigned at birth, or related to a strong desire to change primary and/or secondary sex characteristics. (DSM-5)
Gender Expression	An individual’s presentation (e.g., clothing, behavior) that communicates aspects of their gender identity.
Gender Neutral	Often used to refer to language (such as pronouns) that is neither masculine nor feminine (e.g., they/them). Health care providers are encouraged to use gender neutral language when addressing a group of people, someone whose gender identity is unknown to you, or when someone identifies as non-binary or agender and uses gender neutral pronouns.
Transgender (Trans, Trans+, Trans*)	When an individual’s gender identity does not align with their sex assigned at birth. This can include individuals that identify as a transgender man, transgender woman or those who do not identify within the gender binary e.g., nonbinary, gender nonconforming, agender, genderqueer.
*This table is not all-inclusive of the numerous terms and/or descriptors that a patient may utilize to self-identify their gender identity, gender expression, or sexual orientation. The authors encourage readers with additional questions related to terminology to consult reputable organizations such as the Human Rights Campaign ( <a href="https://www.hrc.org/resources/glossary-of-terms">https://www.hrc.org/resources/glossary-of-terms</a> ) or GLAAD ( <a href="https://www.glaad.org/publications/talkingabout/terminology">https://www.glaad.org/publications/talkingabout/terminology</a> )	

## 123 **Gender Expression**

124 While gender identity is an internal concept of one's own gender, *gender expression* is  
125 the outward display of that identity through clothing, personal grooming, cosmetics, jewelry, and  
126 other characteristics. These various characteristics are often considered more masculine,  
127 feminine, or androgenous by societal expectations of gender. An individual's gender expression  
128 may remain relatively steady, or be fluid and dynamic, depending on personal preferences and  
129 assumptions should not be made that an individual will ascribe to specific gender norms  
130 associated with their gender identity. Health care providers must understand that assumptions of  
131 an individual's gender based on outward characteristics of gender expression can be harmful,  
132 underscoring the importance of avoiding automatic assumptions.<sup>24</sup>

## 133 **Sexual Orientation**

134 Sexual orientation specifically refers to the type of connection or attraction between  
135 members of the same or different gender(s); this attraction can be based on physical, romantic,  
136 emotional, spiritual, or intellectual characteristics. While not all-inclusive, some examples of  
137 sexual orientations include lesbian, gay, bisexual, and pansexual. Individuals may also identify  
138 as asexual or aromantic, indicating a lack of sexual or romantic attraction to others respectively.  
139 An individual's sex assigned at birth, gender identity, or gender expression has no bearing on  
140 their sexual orientation. Similarly, it can be offensive to assume one's sexual orientation based  
141 on their sex, gender identity, or gender expression.

## 142 **Gender Affirmation Framework**

143 The gender affirmation framework is multifaceted model that describes the processes that  
144 an individual experiencing incongruence between their sex assigned at birth and gender identity  
145 may pursue to affirm their gender identity. This framework identifies multiple domains including

146 social affirmation, legal affirmation, and medical affirmation in which gender affirmation can be  
147 pursued.<sup>25</sup> It is important for providers to recognize that TGD individuals may choose to engage  
148 with some, all, or none of the processes described within the gender affirmation framework.  
149 Regardless of the degree and extent to which an individual seeks gender affirmation, their gender  
150 identity is valid.

### 151 **Social Affirmation**

152 Social affirmation refers to the validation and self-actualization of gender identity  
153 through internal and external means such as the use of a chosen name, pronouns, and gender  
154 markers that may differ than those assigned at birth. Social affirmation also includes the process  
155 of disclosing all or part of one's identity with social networks including but not limited to  
156 friends, family members, coworkers, and community members.<sup>25,26</sup> The process of voluntarily  
157 disclosing information relevant to sexual orientation and gender identity is often referred to as  
158 "coming out" and is described as a series of strategic decisions about when, where, and how to  
159 disclose personal information that occurs multiple times across the lifespan.

160 Literature shows that TGD individuals must often navigate negative reactions and threats  
161 of violence when choosing to disclose their gender identity and/or sexual orientation.<sup>27</sup> When an  
162 individual's sexual orientation or gender identity is involuntarily revealed, without consent, this  
163 is often referred to as "being outed". The experience of having personal information made public  
164 without consent is notably dangerous for TGD individuals and is often linked to higher rates of  
165 violence and discrimination.<sup>26-28</sup>

### 166 **Legal Affirmation**

167 Legal affirmation refers to the process of engaging with institutions, organizations, and  
168 governmental bodies to amend names, pronouns, and gender markers to affirm gender identity.

169 Amendments such as these often occur to identifying documents such as driver's licenses,  
170 passports, social security cards, medical documents, insurance paperwork, and employee/student  
171 records.<sup>25</sup>

172 The overall ease and ability of TGD individual to pursue legal affirmation is directly  
173 linked to organizational policies and state or federal laws. In many cases there are specific state  
174 laws that prohibit TGD individuals from amending names, pronouns, and gender markers,  
175 making legal affirmation difficult or impossible. The practice of governmental bodies proposing  
176 and passing legislation restricting the rights of TGD individuals has become increasingly  
177 common, in large part due to the current socio-political climate.<sup>29-31</sup> These legislative efforts,  
178 whether successful or not, have a detrimental impact on the health and well-being of TGD  
179 individuals and have been found to increase in the prevalence of psychosocial conditions that  
180 may result in self-harm.<sup>32</sup>

### 181 **Medical Affirmation**

182 Medical affirmation refers to the various medical procedures and hormone therapies  
183 available to better align an individual's physical body and secondary sex characteristics with  
184 their gender identity. Gender-affirming hormone therapy (GAHT) and gender-affirming surgical  
185 procedures are two examples of medical affirmation.<sup>25</sup> There are numerous reported benefits  
186 associated with medical affirmation including a decrease in severe psychological distress,  
187 reduction in suicidal ideation and suicide attempts, and an increase in positive health behaviors.<sup>33</sup>  
188 However despite these benefits, there are well documented barriers to accessing gender-  
189 affirming care including a lack of financial stability, adequate insurance, appropriately trained  
190 health care providers, and proximity to medical specialists.<sup>34,35</sup> In addition to these barriers, there  
191 is also an increase in prevalence of discriminatory state laws banning gender-affirming care

192 putting both health care providers and parents at risk.<sup>34,35</sup> Medical affirmation will be discussed  
193 in greater detail in part two of this narrative literature review.

## 194 **Health and Healthcare Disparities**

195 The World Health Organization (WHO) defines health as “a state of complete physical,  
196 mental, and social well-being, and not merely the absence of disease or infirmity”.<sup>2</sup> Too often,  
197 those who identify as TGD do not meet the criteria for health set forth by the WHO due to  
198 negative impacts to their social determinants of health (SDoH).<sup>2</sup> This experience of  
199 marginalization due to gender identity has far-reaching effects on an individual’s access to safe  
200 housing, quality education, employment opportunities, economic stability, and adequate  
201 healthcare services.<sup>2,14</sup> Factors such as a lack of social support, high rates of violence,  
202 experiences of discrimination and harassment, and lack of comprehensive legal protection, lead  
203 TGD individuals to experience high levels of minority stress.<sup>2,14</sup>

204 The leading framework to contextualize the oppression that TGD individuals experience,  
205 and its impact on health and wellbeing, is known as Minority Stress Theory.<sup>36-39</sup> Minority Stress  
206 Theory posits that groups who are minoritized due to their social status experience a greater  
207 incidence of stressors such as stigma, prejudice, discrimination, and victimization as well as an  
208 unequal allocation of power and resources.<sup>36-39</sup> These stressors in turn have a negative impact on  
209 the quality of life, health outcomes, and well-being of minoritized individuals.<sup>40</sup>

210 Compounding the minority stress and health disparities already experienced by TGD  
211 individuals, the health of this population has historically not been prioritized. It was not until the  
212 Department of Health and Human Services launched its *Healthy People 2020* initiative in 2010  
213 that “Lesbian, Gay, Bisexual, and Transgender Health” became an area that the federal  
214 government allocated resources to.<sup>2</sup> This initiative identified multiple health disparities facing

215 TGD individuals, including an increased risk for mental health co-morbidities,  
216 substance abuse, suicide, being the victim of violence, reduced access to health services, as well  
217 as increased use of tobacco, alcohol, or drugs.<sup>2</sup> Societal stigma, discrimination, and denial of  
218 civil and human rights were also identified as prominent factors leading to the development of  
219 the aforementioned disparities.<sup>2</sup> Furthermore, the federal government identified that the health-  
220 related oppression and discrimination negatively impacted TGD individuals' health in large part  
221 due to the shortage of clinically- and culturally-competent healthcare providers.<sup>2</sup> The lack of  
222 state and federal laws protecting children and adolescents from anti-transgender bullying,  
223 combined with a lack of social programs for transgender people across the lifespan, also were  
224 found to cause and contribute to these disparities.<sup>2</sup>

225 The Affordable Care Act (ACA) of 2010 is widely regarded as a significant event  
226 advancing the state of TGD healthcare and care accessibility.<sup>2,41</sup> Prior to the enactment of the  
227 ACA, insurance carriers would routinely deny coverage to TGD individuals citing 'gender  
228 identity disorder' or 'gender dysphoria' as a preexisting condition. To illustrate the effect that  
229 insurance denial of care has on gender-affirming care, one of the largest studies conducted on  
230 TGD individuals in 2015 concluded that 25% of TGD individuals were denied coverage for  
231 hormone therapy and 55% were denied coverage for gender-affirming surgery.<sup>2</sup> The same survey  
232 also concluded that 33% of TGD individuals had at least one negative healthcare experience due  
233 to their gender identity in the preceding twelve months, and 24% interacted with healthcare  
234 providers lacking cultural- or clinical-competency in transgender healthcare.<sup>2</sup>

235 Demonstrating the compounding effect of intersectionality on health outcomes and  
236 SDoH, Black and Latinx TGD individuals experienced the highest rates of poverty and  
237 unemployment within the TGD population.<sup>2</sup> Specifically, 38% of Black and 43% of Latinx TGD

238 people reported experiencing poverty compared to 29% of the entire TGD population. Similarly,  
239 20% of Black and 21% of Latinx TGD people reported experiencing unemployment compared to  
240 15% of the entire TGD population.<sup>2</sup> All the aforementioned statistics for poverty and  
241 unemployment for TGD individuals were far higher than national averages reported by the US  
242 Census Bureau and US Department of Labor respectively during the same time frame.<sup>2</sup>

243 To combat many of the oppressive systematic and social structures, many states have  
244 proposed and passed specific non-discriminatory legislation affording protections to TGD  
245 people.<sup>42</sup> These laws, in one study, were found to lower rates of discrimination and victimization  
246 reported by TGD individuals while simultaneously decreasing rates of social stigma.<sup>42</sup> Despite  
247 the progressive work of some state governments, there are many state governments  
248 simultaneously proposing and passing regressive legislation impacting access to gender-  
249 affirming care, sport participation, inclusive health education, and other aspects of life.<sup>32,43,44</sup>

250 At the federal level, there is a lack of comprehensive congressional legislation and  
251 consistent executive policy guidance protecting the rights of TGD people.<sup>45</sup> Due to the lack of  
252 congressional legislation, the rights and protections afforded to the TGD population are often  
253 supported only through executive orders (EOs).<sup>45</sup> Lacking longstanding protections codified into  
254 law, this current practice of solely utilizing EOs to protect the rights of TGD individuals leads to  
255 an overreliance on the current presidential administration to enact inclusive EOs. Furthermore,  
256 drastic shifts and reversals in federal guidance from administration to administration are  
257 commonplace between election cycles.<sup>45</sup> Such inconsistencies in basic protections have led to  
258 75% of TGD youth in one survey to report politics as having a primary impact on their mental  
259 health.<sup>46</sup>

260

## 261 **The Athletic Trainer's Role**

262 Arguably one of the biggest barriers to receiving gender-affirming care for TGD patients  
263 is the lack of clinically- and culturally- competent healthcare providers.<sup>2,9</sup> Within the profession  
264 of AT, one prominent contributing factor perpetuating these barriers is the lack of formal  
265 education and reported competence in TGD specific patient care.<sup>11,47,48</sup> In addition to providing  
266 high-quality and patient-centered care to all patients, ATs are often the first and regular point of  
267 contact for patients entering the healthcare system and requiring evaluation, diagnosis, and  
268 care.<sup>49-51</sup> Due to their unique position within the healthcare system, ATs are well positioned to  
269 combat many of the barriers and related disparities facing TGD patients. To combat widespread  
270 health and healthcare disparities outside of normal patient care responsibilities, the role of the  
271 AT when caring for TGD patients is threefold:

- 272 1) To serve as a care coordinator developing and/or interfacing with interprofessional care  
273 teams.
- 274 2) To create and maintain an inclusive environment for the delivery of care.
- 275 3) To be knowledgeable about the various aspects of gender-affirming care while assisting  
276 patients in navigating the healthcare system and in some cases the policy requirements of  
277 participation in sport.

278 High performing interprofessional care teams are an integral component required to achieve  
279 the patient-driven goals for each TGD patient undergoing gender-affirming care. In addition to  
280 offering individualized care, high performing interprofessional care teams have also been  
281 reported to improve patient satisfaction, medication adherence, self-management skills, patient  
282 education, and patient outcomes.<sup>52,53</sup> While some aspects of gender-affirming care are outside of  
283 the ATs scope of practice, ATs are still uniquely positioned to facilitate development of



284 interprofessional care teams for their TGD patients. However, prior to establishing an  
285 interprofessional care team, consideration should be taken to determine the patient's individual  
286 goals of gender-affirming care. Once patient goals are determined, a team of inclusive and  
287 proficient providers and specialists can be formed to assist the patient in achieving their goals.  
288 While the specific makeup of an interprofessional care team will be dependent on patient goals,  
289 the AT should consider inclusion of surgical specialists, pharmacists, mental health  
290 professionals, adolescent medicine specialists, and dieticians in addition to the patient's primary  
291 care provider on the care team. A national list of providers offering gender-affirming and  
292 inclusive care can be found at [www.glma.org](http://www.glma.org).

293 In addition to creating an interprofessional care team, the AT should focus on creating an  
294 environment that emphasizes the inclusive delivery of healthcare within their facility. It is  
295 probable that creating this inclusive environment may require making systemic changes  
296 including the development or amendment of non-discriminatory and anti-harassment policies  
297 that specifically protect sexual orientation, gender identity, and gender expression in addition to  
298 existing protected characteristics.<sup>54,55</sup> An audit of existing documentation forms (e.g., health  
299 history questionnaires, injury report forms, referral forms) and practices (e.g., shared electronic  
300 medical record systems with partnering health care facilities) may also be required to ensure the  
301 ability to appropriately document gender-inclusive information such as chosen name, legal name,  
302 and pronouns while protecting patient privacy and maintaining confidentiality.<sup>13,55</sup> An extensive  
303 checklist of recommendations and resources for developing inclusive athletic training facilities  
304 can be found at <https://www.nata.org/professional-interests/inclusion>.

305 Furthermore, the AT must be knowledgeable regarding the various aspects of gender-  
306 affirming care with specific emphasis on GAHT and gender-affirming surgery. While

307 prescribing hormone therapy is not within the scope of an AT, an awareness of intended  
308 therapeutic effects, potential side effects, medication interactions, and administration routes is  
309 valuable to improving patient care and bilateral communication with the interprofessional care  
310 team. In traditional sport settings, the AT may also have unique insights valuable to the  
311 interprofessional care team that influences the prescription of GAHT (e.g., advising against using  
312 testosterone gels in swim & dive athletes due to the requirement of avoiding swimming for 2-5  
313 hours after topical application, potentially limiting the ability to practice or compete), the timing  
314 of gender-affirming surgery (e.g., surgical interventions and recovery timeframes in respect to  
315 patient goals and competitive seasons), and compliance considerations (e.g., therapeutic use  
316 exemptions and navigating participation policies).

317 With the rapidly evolving nature of participation policies and laws at the secondary  
318 school, collegiate, and professional levels that impact TGD individuals' ability to participate in  
319 sport, it is difficult for healthcare providers, sports administrators, and athletes to keep abreast of  
320 the changes. With significant consequences associated with misinterpretation of new and  
321 evolving policies (e.g., disqualification from sport), TGD athletes have a large burden to bear,  
322 with minimal room for error, when compared to their cisgender counterparts. As such, a  
323 knowledgeable interprofessional care team with relevant and up-to-date knowledge on applicable  
324 policies and laws can not only improve patient outcomes, but also provide clarity for those  
325 competing in organized sport. These topics involving sport participation policies will be  
326 discussed further in part two of this narrative literature review.

## 327 **Conclusion**

328 Current literature demonstrates that TGD individuals disproportionately experience  
329 stigma, prejudice, discrimination, and victimization at higher rates than cisgender individuals.

330 Minority stress<sup>38</sup> and a lack of knowledgeable health care providers are prominent contributing  
331 factors to the numerous health and healthcare disparities impacting the health and well-being of  
332 TGD individuals. Due to their unique and valuable role within the healthcare system, ATs are in  
333 an opportune position to mitigate these health and healthcare disparities.

334 As part one of a two-part series, this narrative literature review provides ATs with the  
335 requisite foundational knowledge needed to contextualize future learning and improve their  
336 ability to care for TGD patients. Part two of this narrative literature review builds on the  
337 foundational information discussed in this manuscript by providing ATs with evidence-based  
338 information on various interventions related to gender-affirming care (e.g., gender-affirming  
339 surgery, GAHT, tucking, and binding). Due to the rapidly developing body of knowledge related  
340 to gender affirming care and the improvement of TGD patient outcomes, it is recommended that  
341 clinicians who are in a position to provide care to TGD patients remain knowledgeable on best  
342 practices through reliable up to date sources.

Online First

343 **References:**

- 344 1. Green AE, Price MN, Dorison SH. Cumulative minority stress and suicide risk among  
345 LGBTQ youth. *Am J Community Psychology*. 2022;69(1-2):157-168.
- 346 2. Neira PM, Lee AN. Under attack: Transgender health in 2020. *J Health Care L & Pol'y*.  
347 2021;24:109.
- 348 3. Bränström R, Pachankis JE. Country-level structural stigma, identity concealment, and day-to-  
349 day discrimination as determinants of transgender people's life satisfaction. *Soc Psychiatry*  
350 *Psychiatr Epidemiol*. 2021;56(9):1537-1545.
- 351 4. Messinger AM, Guadalupe-Diaz XL, Kurdyla V. Transgender polyvictimization in the US  
352 Transgender Survey. *J Interpers Violence*. 2021:08862605211039250.
- 353 5. Howard SD, Lee KL, Nathan AG, Wenger HC, Chin MH, Cook SC. Healthcare experiences  
354 of transgender people of color. *J Gen Intern Med*. 2019;34(10):2068-2074.
- 355 6. Human Rights Campaign. We are here: Understanding the size of the LGBTQ+ Community.  
356 Accessed April 4, 2022. [https://www.hrc.org/press-releases/we-are-here-lgbtq-adult-population-](https://www.hrc.org/press-releases/we-are-here-lgbtq-adult-population-in-united-states-reaches-at-least-20-million-according-to-human-rights-campaign-foundation-report)  
357 [in-united-states-reaches-at-least-20-million-according-to-human-rights-campaign-foundation-](https://www.hrc.org/press-releases/we-are-here-lgbtq-adult-population-in-united-states-reaches-at-least-20-million-according-to-human-rights-campaign-foundation-report)  
358 [report](https://www.hrc.org/press-releases/we-are-here-lgbtq-adult-population-in-united-states-reaches-at-least-20-million-according-to-human-rights-campaign-foundation-report).
- 359 7. Landers S, Kapadia F. The health of the transgender community: out, proud, and coming into  
360 their own. *American Public Health Association*; 2017;107(2):205-206.
- 361 8. Nolan IT, Kuhner CJ, Dy GW. Demographic and temporal trends in transgender identities and  
362 gender confirming surgery. *Transl Androl Urol*. 2019;8(3):184.
- 363 9. Safer JD. Research gaps in medical treatment of transgender/nonbinary people. *J Clin*  
364 *Investig*. 2021;131(4)
- 365 10. Walen DR, Nye EA, Rogers SM, et al. Athletic trainers' competence, education, and  
366 perceptions regarding transgender student-athlete patient care. *J Athl Train*. 2020;55(11):1142-  
367 1152.
- 368 11. Munson EE, Ensign KA. Transgender athletes' experiences with health care in the athletic  
369 training setting. *J Athl Train*. 2021;56(1):101-111.
- 370 12. Eberman LE, Winkelmann ZK, Nye EA, Walen DR, Granger KC, Walker SE. Providing  
371 transgender patient care: Athletic trainers' compassion and lack of preparedness. *J Athl Train*.  
372 2021;56(3):252-262.
- 373 13. Kronk CA, Everhart AR, Ashley F, et al. Transgender data collection in the electronic health  
374 record: Current concepts and issues. *J Am Med Inform Assoc*. 2022;29(2):271-284.

- 375 14. Cardona ND, Madigan RJ, Sauer-Zavala S. *How minority stress becomes traumatic*  
376 *invalidation: An emotion-focused conceptualization of minority stress in sexual and gender*  
377 *minority people*. *Clinical Psychology: Science and Practice*. 2021.
- 378 15. Johnson KC, LeBlanc AJ, Deardorff J, Bockting WO. Invalidation experiences among non-  
379 binary adolescents. *J Sex Res*. 2020;57(2):222-233.
- 380 16. Suess Schwend A. Trans health care from a depathologization and human rights perspective.  
381 *Public Health Rev*. 2020;41(1):1-17.
- 382 17. Dessie A, Lewiss RE. Standardizing terminology in academic medical journals:  
383 understanding sex and gender. *European Journal of Emergency Medicine*. 2021;28(5):331-332.
- 384 18. Claahsen-van der Grinten H, Verhaak C, Steensma T, Middelberg T, Roeffen J, Klink D.  
385 Gender incongruence and gender dysphoria in childhood and adolescence—current insights in  
386 diagnostics, management, and follow-up. *Eur J Pediatr*. 2021;180(5):1349-1357.
- 387 19. F. Beek T, Cohen-Kettenis PT, Kreukels BP. Gender incongruence/gender dysphoria and its  
388 classification history. *International Review of Psychiatry*. 2016;28(1):5-12.
- 389 20. Rodríguez MF, Granda MM, González V. Gender incongruence is no longer a mental  
390 disorder. *Journal of Mental Health & Clinical Psychology*. 2018;2(5)
- 391 21. Thelwall M, Devonport TJ, Makita M, Russell K, Ferguson L. Academic LGBTQ+  
392 terminology 1900-2021: Increasing variety, increasing inclusivity? *J Homosex*. 2022:1-25.
- 393 22. University of California D. LGBTQIA resource center glossary. Updated January 14th, 2020.  
394 Accessed March 24th, 2022. <https://lgbtqia.ucdavis.edu/educated/glossary>
- 395 23. Diagnostic and Statistical Manual of Mental Disorders: DSM-5. 5<sup>th</sup> ed., American Psychiatric  
396 Association, 2022. DSM-V, doi-org.db29.linccweb.org/10.1176/appi
- 397 24. Anderson SM. Gender matters: The perceived role of gender expression in discrimination  
398 against cisgender and transgender LGBQ individuals. *Psychology of Women Quarterly*.  
399 2020;44(3):323-341.
- 400 25. Fontanari AMV, Vilanova F, Schneider MA, et al. Gender affirmation is associated with  
401 transgender and gender nonbinary youth mental health improvement. *LGBT Health*.  
402 2020;7(5):237-247.
- 403 26. King WM, Gamarel KE. A scoping review examining social and legal gender affirmation  
404 and health among transgender populations. *Transgender Health*. 2021;6(1):5-22.
- 405 27. Brumbaugh-Johnson SM, Hull KE. Coming out as transgender: Navigating the social  
406 implications of a transgender identity. *J Homosex*. 2019;66(8):1148-1177.
- 407 28. Bancroft K. *Being 'outed' in school made me want to curl up into a ball and want to just to*  
408 *die, exploring the experiences of transitioning transgender students*. 2017:12-18.

- 409 29. D'Amore C. Dramatic Rise in State Bills Targeting Transgender Student Athletes. *Cardozo*  
410 *Arts & Ent LJ*. 2021;
- 411 30. Park BC, Das RK, Drolet BC. Increasing criminalization of gender-affirming care for  
412 transgender youths—a politically motivated crisis. *JAMA Pediatr*. 2021;175(12):1205-1206.
- 413 31. Witt H, Medina-Martinez K. Transgender rights & the urgent need for social work advocacy.  
414 *Soc Work Public Health*. 2022;37(1):28-32.
- 415 32. Barbee H, Deal C, Gonzales G. Anti-transgender legislation—a public health concern for  
416 transgender youth. *JAMA Pediatr*. 2022;176(2):125-126.
- 417 33. Almazan AN, Keuroghlian AS. Association between gender-affirming surgeries and mental  
418 health outcomes. *JAMA Surgery*. 2021;156(7):611-618.
- 419 34. Kidd KM, Sequeira GM, Paglisotti T, et al. “This could mean death for my child”: Parent  
420 perspectives on laws banning gender-affirming care for transgender adolescents. *J Adolesc*  
421 *Health*. 2021;68(6):1082-1088.
- 422 35. Turban JL, Kraschel KL, Cohen IG. Legislation to criminalize gender-affirming medical care  
423 for transgender youth. *JAMA*. 2021;325(22):2251-2252.
- 424 36. Chaudoir SR, Wang K, Pachankis JE. What reduces sexual minority stress? A review of the  
425 intervention “toolkit”. *J Soc Issues*. 2017;73(3):586-617.
- 426 37. Fulginiti A, Rhoades H, Mamey MR, et al. Sexual minority stress, mental health symptoms,  
427 and suicidality among LGBTQ youth accessing crisis services. *J Youth Adolesc*. 2021;50(5):893-  
428 905.
- 429 38. Gamarel KE, Reisner SL, Laurenceau J-P, Nemoto T, Operario D. Gender minority stress,  
430 mental health, and relationship quality: a dyadic investigation of transgender women and their  
431 cisgender male partners. *J Fam Psychol*. 2014;28(4):437.
- 432 39. Tebbe EA, Moradi B. Suicide risk in trans populations: An application of minority stress  
433 theory. *J Couns Psychol*. 2016;63(5):520.
- 434 40. Braveman PA, Kumanyika S, Fielding J, et al. Health disparities and health equity: the issue  
435 is justice. *Am J Public Health*. 2011;101(S1):S149-S155.
- 436 41. Stroumsa D. The state of transgender health care: policy, law, and medical frameworks. *Am J*  
437 *Public Health*  
438 2014;104(3):e31-e38.
- 439 42. Gleason HA, Livingston NA, Peters MM, Oost KM, Reely E, Cochran BN. Effects of state  
440 nondiscrimination laws on transgender and gender-nonconforming individuals' perceived  
441 community stigma and mental health. *J Gay Lesbian Men Health*. 2016;20(4):350-362.

- 442 43. Hughes LD, Kidd KM, Gamarel KE, Operario D, Dowshen N. “These laws will be  
443 devastating”: Provider perspectives on legislation banning gender-affirming care for transgender  
444 adolescents. *J Adolesc Health*. 2021;69(6):976-982.
- 445 44. Garg N, Volerman A. A national analysis of state policies on lesbian, gay, bisexual,  
446 transgender, and questioning/queer inclusive sex education. *J Sch Health*. 2021;91(2):164-175.
- 447 45. Fredrick EG, Mann AK, Brooks BD, Hirsch JK. Anticipated to enacted: Structural stigma  
448 against sexual and gender minorities following the 2016 presidential election. *Sex Res Social*  
449 *Policy*. 2022;19(1):345-354.
- 450 46. The Trevor Project. National Survey on LGBTQ youth mental health. Accessed February 1,  
451 2022. [https://www.thetrevorproject.org/wp-content/uploads/2019/06/The-Trevor-Project-](https://www.thetrevorproject.org/wp-content/uploads/2019/06/The-Trevor-Project-National-Survey-Results-2019.pdf)  
452 [National-Survey-Results-2019.pdf](https://www.thetrevorproject.org/wp-content/uploads/2019/06/The-Trevor-Project-National-Survey-Results-2019.pdf)
- 453 47. Walen DR, Nye EA, Rogers SM, et al. Athletic Trainers' Competence, Education, and  
454 Perceptions Regarding Transgender Student-Athlete Patient Care. *Journal of Athletic Training*.  
455 2020;55(11):1142-1152. doi:10.4085/1062-6050-147-19
- 456 48. Nye EA, Crossway A, Rogers SM, Games KE, Eberman LE. Lesbian, gay, bisexual,  
457 transgender, and queer patients: collegiate athletic trainers' perceptions. *J Athl Train*.  
458 2019;54(3):334-344.
- 459 49. Fisher R, Esparza S, Nye NS, et al. Outcomes of embedded athletic training services within  
460 United States Air Force basic military training. *Journal of athletic training*. 2021;56(2):134-140.
- 461 50. Breitbach AP, Muchow JA, Gallegos DF. Athletic trainers' unique clinical and teamwork  
462 skills contribute on the frontlines during the COVID-19 pandemic: A discussion paper. *J*  
463 *Interprof Care*. 2020;34(5):607-613.
- 464 51. Bejar MP, Raabe J, Zakrajsek RA, Fisher LA, Clement D. Athletic trainers' influence on  
465 national collegiate athletic association division I athletes' basic psychological needs during sport  
466 injury rehabilitation. *J Athl Train*. 2019;54(3):245-254.
- 467 52. Eckstrand KL, Ng H, Potter J. Affirmative and responsible health care for people with  
468 nonconforming gender identities and expressions. *AMA Journal of Ethics*. 2016;18(11):1107-  
469 1118.
- 470 53. Wei H, Horns P, Sears SF, Huang K, Smith CM, Wei TL. A systematic meta-review of  
471 systematic reviews about interprofessional collaboration: facilitators, barriers, and outcomes. *J*  
472 *Interprof Care*. 2022:1-15.
- 473 54. Mennicke A, Cutler-Seeber A. *Incorporating inclusivity: How organizations can improve the*  
474 *workplace experiences of trans\* people across the trans\* spectrum: a US perspective*. Sexual  
475 orientation and Transgender Issues in Organizations. 2016:513-523.
- 476 55. Rogers SM, Crossway AK, Aronson PA. Creating a LGBTQ+ inclusive culture in the  
477 athletic training facility. *Clinical Practice in Athletic Training*. 2018;1(1):11-14.

Online First