Identity as Illness? Rethinking Transgender Suicide Risk and Healthcare in Germany

Author: Katherine Laurila

BOSTON COLLEGE

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KATHERINE LAURILA

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Abstract

Transgender individuals in the twenty-first century face stigmatization across the globe. Discrimination contributes to the development of early life stress (ELS), and this may lead to depression, anxiety, and social and developmental problems as individuals enter adulthood. Suicide rates in transgender populations in Western countries peak above 41%, compared to 4.6% in the general population (Haas, Rodgers, & Herman, 2014). Though medical and social efforts to treat suicide in the community are being developed, existing measures have been unable to effect significant change regarding these disproportionately-high suicide rates. Some parts of the world are drawing ahead of others in this respect. As one of the most gay-friendly countries in the world (Rand, 2013), for example, Germany is making progress medically and legally, including recently having introduced a third gender option into legal documents and opened new discussions on depathologizing transgender identity in medical care. Germany has been able to build on its early history as the first country to publicly tolerate and provide healthcare to transgender individuals. This has fostered transgender activism from the postwar period to today and may contribute to lowered suicide rates among transgender Germans. This thesis aims to use Germany's early history of transgender rights to contextualize the state of the transgender population there today. Using an analysis of existing literature, it looks at the effects of stigmatization on suicide rates in the transgender population. Positive and negative aspects of Germany's LGBTQ+ and transgender culture are evaluated for their impact on neurological development and the perpetuation of suicidal behavior. The thesis concludes with proposals for improved social, legal, and medical practices regarding transgender health in Germany, with a particular focus on the development of cultural understanding of transgender identity.

Keywords: *transgender, suicide, early life stress, Germany, LGBTQ+*

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Introduction

Problem

Although the LGBTQ+ community has enjoyed an upswing in support for their rights across the Western world over the last couple of decades, the transgender community in particular remains deeply vulnerable and underserved. This is in part due to lack of representation of the community in the public eye, which has limited opportunities for transgender individuals to be better understood, normalized, and accepted among the greater public. The transgender community has historically made progress later and to a lesser degree than the rest of the LGBTQ+ community. Although the 1969 Stonewall Riots were led by transgender people of color such as Marsha P. Johnson, and a number of prominent figures have come out publicly as transgender in the last decade (e.g. Chaz Bono, Chelsea Manning, Laverne Cox), the community remains unrecognized in many countries across the world and heavily persecuted in others.

Since the turn of this century, some countries, mainly in the Western world, have begun to open legal and medical routes to provide care for transgender individuals (Armbrecht, 2017). However, it was Germany that first pioneered both the representation of transgender individuals in media and treatment methods for their needs more than a century ago (Güldenring, 2015; Nieder & Strauss, 2015). The rise of the Third Reich and outbreak of the Second World War delayed the country's progress significantly for decades, but today the country is influenced by its early history and its quickly modernizing culture of openness and acceptance. Germany regularly tops lists of the most gay-friendly countries in the world (eTurboNews, 2018; Mandell, 2016; Rand, 2013), and even within the past year, a number of legal measures have been passed

in the country to legalize gay marriage (Smale & Shimer, 2017) and, most recently, to introduce a third-gender option into all legal documents by the end of 2018 (Maxwill, 2017).

German medical and legal bodies now face the question of how to support their transgender citizens when the transgender population across the Western world suffers suicide rates and attempt rates at ten times the average of the overall population. Suicide is the second leading cause of death for German youth as recorded in the country's own published statistics (Tarchi & Colucci, 2013). Support groups, media campaigns, and anti-discrimination laws help to combat some of the resulting negative mental health effects the transgender population faces, but there remains significant room for improvement.

The German census bureau, most notably, does not currently record or publish statistics for the prevalence of transgender individuals in the population (Hess, Neto, Panic, Rübben, & Senf, 2014), hate crimes against transgender people (Human Rights Watch, 2011), or suicides within the transgender community. Without this information, it is impossible for researchers to accurately assess the specific risk factors influencing the high levels of depression and suicide in the community or conceive of proper means to expand and improve systems to address the issue. Additionally, medical and psychiatric frameworks currently in place for the country's transgender population face numerous criticisms. These include reported discrimination against patients, silencing of transgender patients' voices in their own treatment, improper or lacking education of professionals in the field, and a lack of evidence-based research to inform treatment methods.

The following paper addresses the current standing of transgender rights in Germany and highlights areas for improvement in its existing medical and psychiatric systems. The concluding sections will address some measures that could be taken to help reduce suicide risk

for the German transgender population in the future, including establishing a national statistical database to assess the size of the transgender population in the country and annual suicide numbers, as well as possible improvements for both the medical and social spheres. It will conclude with an evaluation of the overarching issues at the heart of anti-transgender stigmatization, namely the lack of understanding of non-binary identity in social and healthcare systems, and the ways that these can be contested for the long-term improvement of transgender health.

Statement of Terminology

In this section, a number of terms will be defined and important distinctions between them will be made. Basic information regarding common diagnoses and treatment options involved in transgender healthcare will be introduced here and discussed at greater length in later sections.

Transgender is a term used to refer to an individual whose gender assigned at birth is inconsistent with the gender they identify with, while cisgender is used for individuals whose gender identity matches the gender they were assigned at birth. Being transgender is not the same as being gay or lesbian and a person's gender identity is independent of their sexual orientation. Transgender people have lived in society for as long as humanity has existed (Güldenring, 2015), though it is only in more recent history, with the progress of LGBTQ+ rights in the public sphere, that the community has been named and its particular vulnerabilities identified. Since the turn of the twenty-first century, in particular, a number of politicians and public figures have joined the conversation on transgender issues and medical treatments specific to the community have become more widely researched and available. Today, much of the available medical and psychological research focuses on developments designed to make

transgender individuals feel comfortable in their bodies and safer in the social surroundings they inhabit. Current treatments seek to help those who have faced mental and physical trauma as a result of lifelong abuse and discrimination. Much of this type of treatment centers around the diagnosis and treatment of depression, suicide attempts, and suicidal ideation, although other mental disorders including anxiety are also prevalent within the transgender population due to the particular adversity it faces (Austin et al., 2015).

Medical forms of treatment include a range of procedures which will be explained in more depth in the "Healthcare Options" section of this paper. Some individuals choose to undergo hormone treatment and are prescribed doses of either testosterone or estrogen, often alongside a medication (a "blocker") to suppress production of other hormones, depending on whether the goal of treatment is to present as biologically female or male (APA, 2015). Hormones must be taken regularly over the course of the patient's lifetime, as it is necessary to continue to supplement the hormone that the body does not produce naturally. Sex reassignment surgery (SRS) is a permanent and riskier procedure to surgically alter primary and secondary sex characteristics. This option is chosen by individuals seeking to make their bodies more nearly anatomically represent the gender they identify with. Prior to and concurrently with both hormone treatment and surgery, a course of psychotherapy is often recommended or required to ensure that the individual is comfortable and satisfied with the changes occurring in their body. These are the most common forms of medical treatment for transgender individuals available today.

Transsexual is a historic term primarily used in the medical field to refer to a transgender individual who has undergone SRS (APA, 2013). It is important to note that not all transgender individuals choose hormone therapy or surgery; although such treatments may often by helpful

for the person's well-being, not all feel the need for them, some face medical conditions or complications that make surgery difficult, and many more live without the economic means or cultural surroundings that would make surgery possible. Such individuals are nonetheless still transgender and ought to be considered as legitimately male or female as the members of their gender who do choose to undergo surgery or who are born cisgender.

Gender dysphoria is a term that, as defined in the *Diagnostic and Statistical Manual of Mental Disorders, Fifth Edition* (DSM-5), refers to the experience of feelings of conflict between one's assigned gender and one's gender identity, as well as the strong desire to be of and/or be treated as the opposite gender. This is often expressed through a significant discomfort with expected gender roles and with one's own body, in particular with the changes that occur during puberty (APA, 2016). Gender dysphoria is at times distinguished in the medical field from a transgender identity because being transgender encapsulates gender identities not included within the male-female binary, such as genderqueer or gender-nonconforming. Additionally, and perhaps most importantly, the symptoms of discomfort and distress involved in the diagnosis of gender dysphoria are not present in all people who identify as transgender (APA, 2016).

Gender dysphoria is the most frequent diagnosis given to individuals experiencing such symptoms who have not yet undergone puberty and are therefore considered unready for hormone treatment or surgery. The most common treatment option for gender dysphoria is psychotherapy. There are professionals trained in therapeutic methods specific to individuals with gender dysphoria that help them cope with internal conflicts and social troubles that may arise from their dysphoria. Some individuals with gender dysphoria find that their symptoms resolve naturally following the hormonal changes involved with puberty or when their gender identity becomes more consistent with their assigned gender. However, many gender dysphoria-

identifying children continue to identify as such in adolescence, adulthood, and throughout their lives (APA, 2016).

The release of the DSM-5 in 2013 saw Gender Dysphoria introduced in lieu of the manual's previous listing of Gender Identity Disorder (GID). This distinction was made to reflect the understanding that transgender identity in itself is not a mental disorder; it is the social discrimination, stigma, and abuse experienced by transgender or gender-dysphoric individuals that cause the onset of mental illnesses such as anxiety, posttraumatic stress disorder (PTSD), major depression, and suicide and/or suicidal ideation (APA, 2016; Güldenring, 2015). This recognition in the DSM-5 and by mental health professionals encourages a more understanding and educated platform for providing informed, holistic treatment for transgender patients. It may also allow individuals to access care earlier in life. The diagnostic manual used in the German healthcare system is the *International Statistical Classification of Diseases and Related Health Problems* (ICD), which is published by the World Health Organization (WHO) and currently in its tenth edition. The ICD-10 deviates somewhat from the DSM, namely in that it still uses the term Gender Identity Disorder. Its similarities and differences with the DSM and their resulting implications for the German healthcare system will be detailed later in this paper.

Throughout this paper, the term transgender will be used to refer to all individuals who identify as transgender, including male-to-female transitioning (MtF), female-to-male transitioning (FtM), and non-surgically transitioned individuals who nonetheless identify as a different gender than that which they were assigned at birth. The pronouns he/she will be used according to gender identity and not the gender assigned at birth, unless otherwise specified. This is an authorial choice made with the acknowledgement that some individual transgender people identify by different pronouns, including (but not limited to) zhe/ze/hir (APA, 2016). The

word community will be used intermittently to refer to transgender individuals as a group, in reflection of terminology chosen by the LGBTQ+ population and of the particular nature of support within the population in the face of stigmatization from the greater public. Finally, the plural pronoun they will be used to refer to individuals who identify as non-binary and/or intersex who do not use any of the different pronouns referenced above.

Historical Background in Germany

Although much of the worldwide social acceptance and political progress in transgender rights has occurred since the beginning of the twenty-first century (Hank & Salzburger, 2015), the movement first arose in Germany over a century earlier, shortly preceding and continuing through the Wilhelmine and Weimar Periods. The terms homosexual and homosexuality were coined in 1868, published first in a pamphlet by the Austro-Hungarian journalist Karl-Maria Kertbeny (Edwards, 2015), and providing a basis for the development of terminology to describe the LGBTQ+ community and for individuals to be able to express themselves more openly. While the new German Empire instituted Paragraph 175 in 1872, a law criminalizing homosexual acts, Germany was in many ways still at the forefront of social progress for the LGBTQ+ community in Europe at the time (Steakley, 2008). Law enforcement began to turn a blind eye to gay bars as early as the 1880s and media including literature and film had begun to depict non-heterosexual love in the public sphere by the 1920s (Ross, 2015).

Legal movements also arose throughout the period. The nineteenth-century German lawyer Karl Heinrich Ulrichs, for instance, was an early spokesman for what we would now call gay rights, who first argued for the legalization of sex between men at the Sixth Congress of German Jurists in 1867 (Ross, 2015). Ulrichs would go on to establish the groundwork for

modern-day perspectives on what it is to be transgender when he described homosexual men as being driven by a female soul (Nieder & Strauss, 2015). Ulrichs' work was the first to claim a potential biological basis for homosexuality, and with it the supposition that it was not voluntary or a choice. Already in 1864 he had coined the term "Urning," after the god Uranus, to describe men who were attracted to men. Ulrichs believed that such men in fact constituted a third gender (Edwards, 2015).

Similarly, the Austro-German psychiatrist Richard von Krafft-Ebing wrote in his 1886 text *Psychopathia Sexualis* about a "female sex behavior center inside a male body" (Güldenring, 2015). Krafft-Ebing's *Psychopathia Sexualis* was also one of the first medical works to describe, albeit derisively, sexual varieties such as male homosexuality and other related so-called pathologies. Krafft-Ebing described this female behavior center as related to paranoia or to "delusions of sexual metamorphosis" (Güldenring, 2015). The concept that a gender different from biological gender could be assigned would not take hold in wider society until after Ulrich's and Krafft-Ebing's deaths, in 1895 and 1902, respectively, but these and other theorists and activists had laid the groundwork for such ideas in Germany before the turn of the twentieth century.

In 1897, the man who would go on to champion gay rights in Germany, Magnus Hirschfeld, founded the *Scientific Humanitarian Committee*. The committee advocated for gay rights and later introduced transgender rights into its purview, as well; it was the first institution of its kind in the world (Edwards, 2015). Hirschfeld did not subscribe to Ulrichs' or Krafft-Ebing's beliefs of the separately-gendered soul within the body, but he did agree that natural biological variation was the source of homosexuality (Nieder & Strauss, 2015). It was not until 1923, twenty-six years after his founding of the *Committee*, that Hirschfeld first used the term

transsexual in his publication *Jahrbuch für sexuelle Zwischenstufen* (*Yearbook of Sexual Intermediaries*) and introduced transgender medical care into the literature (Nieder & Strauss, 2015).

Already at the beginning of the twentieth century, however, transgender identity had crossed the threshold into the medical sphere, at the same time as the LGBTQ+ community began to make great strides in living openly in the public and political sphere (Nieder & Strauss, 2015; Güldenring, 2015). According to Hirschfeld, he himself met no fewer than 10,000 gay men, lesbians, and crossdressers while living and working in Berlin (Frost, 2017). In early twentieth-century France and Italy, homosexuality was often named with reference to Germany; Italians called gay people "Berlinese" (Edwards, 2015). At the same time, psychology had entered the modern, scientific era, and the Austrian neurologist Sigmund Freud was bringing sexuality into the literature with his psychosexual stage theory (Freud, 1962).

The early- to mid-twentieth-century field of psychology was dominated by psychoanalysis in Vienna and beyond. Freud, its most famous creator, had corresponded with Hirschfeld for a time about his theory of an innate bisexuality in humans (Nieder & Strauss, 2015). Freud's views led numerous sexually frustrated men from across German-speaking Europe to seek help from him for a variety of sexual problems, eager to find answers through his psychosexual stage theory (Ross, 2015). However, Freud's methods fell short of resolving their cases. First and foremost, Freud believed that these patients were suffering from latent homosexuality born of issues experienced early in childhood. He turned away a number of patients who rejected his diagnosis that they were homosexual (Ross, 2015) but who had no other medical point of reference to describe the true source of their frustration.

The celebrated endocrinologist and transgender health clinician Harry Benjamin was one of Freud's such patients. Benjamin first met Magnus Hirschfeld in 1907 (Güldenring, 2015) while Hirschfeld was working in Berlin as a "sexologist," or a therapist who specializes in sexuality. Benjamin's description of his frustrations with Freud's treatment inspired Hirschfeld to create medical means for gender reassignment. Twelve years later, he founded his *Institute of Sex Research*, an establishment that provided services to patients including early hormone therapy (Frost, 2017). The next year Hirschfeld organized Germany's first male-to-female sex reassignment surgery (Güldenring, 2015). He worked in conjunction with his patient's psychotherapist, Arthur Kronfeld, on the progression of the case and a partial surgery was successfully carried out. This early success led later to routine practice of the surgery by the turn of the next decade (Güldenring, 2015).

As further operations followed in subsequent decades, however, it became clear that modifications to Hirschfeld's original method were necessary. The first few procedures showed the therapeutic ineffectuality of pursuing physical modification alone. Hirschfeld's first patient (who had previously cross-dressed and struggled with sex addiction in dealing with his gender dysphoria) underwent multiple reconstructive surgeries, but afterwards ultimately decided to return to living and outwardly presenting as male. Similarly, a patient of the Swiss psychiatrist Medard Boss, who had threatened self-harm and suicide unless he were allowed to undergo surgery, later returned to living as a commanding military officer and a father after his own procedure. Cases such as these served to highlight the importance of a holistic approach to treatment that could encapsulate not only the physical aspect of being transgender, but the mental, social, and cultural aspects as well.

One step toward greater cultural acceptance for transgender and crossdressing individuals came through the legal progress during the same time period. In 1908, Hirschfeld provided a patient with the world's first documented "transvestite pass," a paper which permitted an individual to dress as the opposite gender in public without legal retribution. By 1912, this pass had been established as an official permit with the Berlin police (Frost, 2017). In the final years of the Weimar Republic, the city of Berlin saw a level of acceptance for LGBTQ+ individuals comparable to that of much more modern times. Anti-gay sentiments in opera and popular culture were strongly opposed by the public, and films like *Mädchen in Uniform* (*Girls in Uniform*, dir. Leontine Sagan, 1931) portrayed homosexual feelings on the big screen (Ross, 2015). Germany also published thirty of the thirty-two known newspapers in the world geared towards LGBTQ+ readers in the 1920s (Edwards, 2015). In 1929, advocates attempted to introduce a parliamentary measure to decriminalize homosexuality (Ross, 2015); however, a final vote was never realized, and four years later, Adolf Hitler's assumption of the chancellorship quickly snuffed out hopes for legalization.

Hitler's ascension to power also saw the end of the disbursement of transvestite passes (Frost, 2017), the institution of laws to re-criminalize and persecute gay and crossdressing Germans, and the burning of all "contraband" materials, which included all manner of publications related to LGBTQ+ issues. Magnus Hirschfeld had left the country in 1933 to teach in France, and the *Institute of Sex Research* was burned in his absence. He would never return to Germany (Ross, 2015). During the twelve years of the Third Reich, around 100,000 individuals were arrested on the basis of homosexuality, roughly half incarcerated, and up to 15,000 deported to concentration camps (Steakley, 2008). There, they were required to wear a pink triangle on their uniforms to designate their homosexual status. A decree authored by Hitler

followed in 1941 with the order that all German officers found guilty of being homosexual should be executed. After the war, Allied victors left Germany the decision of what to do with homosexual concentration camp prisoners, and many who wore the pink triangle were sent to prison rather than freed (Steakley, 2008).

The rise of the Third Reich, the outbreak of World War II, and the colossal, far-reaching devastation of civil rights and justice for minority groups throughout the Holocaust cast Germany's early history of pioneering LGBTQ+ rights and tolerance into the shadows. While the transgender community has seen more visibility and activism in the country since the turn of the century, the extent of this early history remains largely forgotten today in the popular imagination. Post-war Germany was divided and occupied by Great Britain, France, the United States, and the Soviet Union, and the country paid significant reparations to the Allied Powers in the form of their scientific patents (O'Reagan, 2014). As a result, for a long time, the reintroduction of healthcare for sexual minorities was largely put on hold.

Transgender identity did endure in the undercurrents of German society throughout its post-war occupation, and eventually developed into fresh attempts at acquiring legal and medical recognition. After the establishment of West Germany in 1949, a psychiatrist named Hans Giese reinstituted the *Scientific Humanitarian Committee* and opened his own *Institute for Sexological Research* in Frankfurt (Steakley, 2008). These locations became rallying points for LGBTQ+ individuals in West Germany to unite and campaign for their rights. However, arrests of homosexual West Germans continued in high numbers until the end of the twentieth century. East Germany, which had reverted to the pre-Nazi version of Paragraph 175 upon its founding, legalized private homosexual acts in 1968 through its abolishment of the Paragraph altogether. Up until that point, in comparison to West Germany, it had not allowed the existence or

operation of LGBTQ+ organizations, though it also saw many fewer arrests of LGBTQ+ individuals (Steakley, 2008). West Germany legalized private homosexual activity in 1969, pressured by the decision in East Germany and in other surrounding countries in Europe. This effectively reverted the legislation to its original 1872 version. Activist movements followed this decision and again in the 1980s as a response to the AIDS epidemic, calling for abolishment of the Paragraph. While activism increased during this period and public opinion improved, however, the actual law remained in effect in the West until 1994, four years after the country had reunified, and while homosexual activity remained legal in the former East Germany (Güldenring, 2015; Steakley, 2008).

In regard to transgender rights progress at the time, the Swiss psychiatrist Boss carried out his controversial SRS procedure in 1950, which is believed to have been the first post-war procedure of the kind in German-speaking Europe (Nieder & Strauss, 2015). More recent notable developments in LGBTQ+ rights have involved re-instituting a medical and psychological foundation of support for transgender people. The 1970s saw legal and medical progress for the community in response to an outcry from transgender Germans who felt that their recognition and resources in public spheres were nonexistent or sorely outdated (Güldenring, 2015). This included introducing the practice of full genital SRS to the German medical field, as well as a uniform set of Standards of Care (SoC) for transgender patients and a definition for transsexuality in the medical literature. The former, though published in the United States, was created by the Harry Benjamin International Gender Dysphoria Association in 1979 and was specifically modified for German healthcare providers in 1997. The latter was written by the sexologist Volkmar Sigusch, also in 1979, in the work *Sexualität und Medizin* (*Sexuality and Medicine*) (Güldenring, 2015). Although this definition for transsexuality was

later criticized for the lack of research or clinical evidence supporting it, it helped to standardize treatment and to open a conversation about depathologizing transgender patients that would continue into the twenty-first century (Güldenring, 2015).

Another development that helped to shape modern treatment for transgender Germans was the 1987 decision by the Federal Social Court of Germany that a mental evaluation must take place for all applicants for SRS before they are eligible for insurance reimbursement for surgery or hormone treatment (Güldenring, 2015). This decision was made with the hope of minimizing misdiagnosis and patient regret during the postoperative period. While patients like Hirschfeld's and Boss' ultimately regretted their decisions, having had inadequate time to consider all options before undergoing surgery, this new law stipulated that all future patients do undergo such an evaluation. This decision has been controversial and will be further discussed later in this paper, but it also linked the field with socio-medical discourse, a connection that has endured into the modern day. With developments such as these, the definition of transgender has become less strictly pathological and has allowed for more variation in possible treatments and for a definition of gender identity that can fit a larger demographic of people.

Social and Legal Acceptance in Germany Today

Today, civil rights and social attitudes toward LGBTQ+ people in Germany fall more in line with the rest of Europe. While more than half of the political parties represented in the Bundestag (German Federal Parliament) were in favor of same-sex marriage by the year 2017, the dominant Christian Democratic Union (CDU) had until then blocked a vote from taking place (Otto, 2017). The Chancellor Angela Merkel's surprise decision to allow a vote of conscience, as a result of pressure from even her own party, the CDU, was sufficient for a bill to be passed

on June 30, 2017. On October 1, same-sex marriage was legalized. This decision was unanticipated for Germany, which had seen attempts at legalization repeatedly stopped in the past. The ruling made it the fifteenth country in Europe to pass such a bill (Lipka, 2017). The events surrounding this decision reflect some of the inconsistencies between public opinion toward LGBTQ+ rights and legal action in Germany over the last few decades. Statistics for public support of same-sex marriage and anti-discrimination laws for LGBTQ+ persons have been steadily on the rise, and above the European average, as detailed in the following paragraphs (Angus Reid Global Monitor, 2006); however, the country has been slower to make actual legal change than some of its neighbors.

A 2015 study by Hank & Salzburger described the German public as somewhat left-of-center within Europe, less positively oriented toward LGBTQ+ rights than citizens of Scandinavian countries but more so than those in Southern and Eastern Europe and Ireland. The 2015 study noted in particular a positive trend in the statistics of public opinion surveys over the last decades. A decade before, Steffens & Wagner (2004) had collected responses from the German public on their opinions toward gay men and lesbians between the years 2000 and 2001. At the time, nearly half of respondents reported feeling positively or at least neutrally toward the two communities, an increase from just one fifth of participants who felt positively in a previous study from the 1980s. Younger age as well as female (as opposed to male) gender identity were predictors of more positive response within the 2004 study. Hank & Salzburger (2015) contextualized these statistics, citing the last few decades' loosening of gender norms and advancement of LGBTQ+ legal rights as instrumental to the advancement of public acceptance. Further, in late 2016, 83% of respondents to a study by the German Federal Anti-Discrimination Agency (FADA) reported positive feelings toward same-sex marriage, while 95% approved of

anti-discrimination laws (Conrad, 2017). Identifying such upward trends for the GLB (gay, lesbian, and bisexual) community can be used, by extension, to project future progress in acceptance of the transgender community, as greater representation of individual communities beneath the LGBTQ+ umbrella contributes to increased public discussion of the whole.

It is important to note, additionally, that since the time that the public opinion studies addressed in this section were conducted, media representation of and legal rights for the LGBTQ+ population have continued to expand and impact public opinion further, particularly for the transgender community. Additionally, although public attitudes toward all minority social groups vary over time, the acceptance of transgender individuals in the Western world has generally been on the increase. Therefore, the numbers presented in this review, which reflect the most current data available, are likely still lower than the statistics representing public opinion today.

Recent legal advancements have included the increase of transgender-protective legislation in the wake of existing laws concerning GLB groups. The 2006 adoption of the General Act on Equal Treatment (*Allgemeine Gleichbehandlungsgesetz*, AGG) prohibits discrimination against individuals based on sexual orientation and gender identity both in the workplace and in civil law (FADA, 2006; FADA, 2011). The FADA's brochure "Guide to the General Treatment Act" from 2010 contains a clause within its section on "Sex" that specifies its protection of "transsexuals and intersexuals" against discrimination alongside cisgender women and men (FADA, 2006, p. 16). The document defines "transsexuals" as individuals who seek medical (hormonal or surgical) treatment to live as the sex "opposite to the one with which they were identified at birth" (FADA, 2006, p. 16) and "intersexuals" as individuals who show both male and female sex characteristics. The brochure details a brief history of equal rights

legislation in Europe beginning with the creation of the Universal Declaration of Human Rights in 1948, which declared all human beings equal. The German Basic Law (Grundgesetz, GG), created in 1949, took on the basic structure of the Universal Declaration and introduced a specific section prohibiting sex-based discrimination in 1994. The Amsterdam Treaty, instituted by the European Union five years later, called for all members of the Council of the European Union to combat discrimination based on sexual orientation in their countries. The next year, in 2000, the Framework Directive on Employment expanded the law to include anti-discrimination measures in the workplace. Germany's central aim in introducing the General Act on Equal Treatment was to introduce these EU-wide directives into its own civil law and cement anti-discrimination legislation protecting minority groups in their professional bodies.

Irrespectively of whether Germany has merely complied with European regulations in advancing anti-discrimination measures, the advancements made during the early years of the twentieth century arguably exert an influence on the progress in medical and social practices today. Some new measures have focused on retribution for crimes against LGBTQ+ individuals during the Third Reich; a number of laws passed in the latter half of the twentieth century focused specifically on reparations for pink-triangle survivors (Steakley, 2008). But Hirschfeld's first attempts at surgery, as well as these early representations in media and legal structures, also provide pre-existing models for the type of efforts necessary to more rapid progress in the modern age. The prevalence and visibility of the LGBTQ+ community in the Weimar Republic contributed to their particularly devastating victimization during and after the Third Reich, but this history has also served as a reference point and a source for growth for the community's postwar activists (Nieder & Strauss, 2015).

Several of these newer advancements in German law have set the stage for an increased number of options for citizens' gender identities. In 2008, the German Federal Constitutional Court ruled that gender-nonspecific naming does not cause undue harm to a child and that parents' rights to name their children by their own wishes should not be thus restricted by gender (Gesley, 2017). This is particularly notable as Germany's legal understanding of gender has historically been largely binary. A law passed first in Nazi Germany in 1938 required that parents name their children in accordance with a pre-approved list, on which each name was clearly traditionally male or female. This law restricted naming options to the newborn's gender assigned at birth. There is no known account of practices in the case of infants at the time born with ambiguous primary and secondary sex characteristics, though until surgery in infancy came into practice in the latter half of the twentieth century, it was commonplace for gender, and therefore name, to be chosen based on the external sex characteristics most dominantly visible in the infant. Naming laws (*Namensrecht*) have endured in Germany in the form of regulation by local registrar offices (*Standesämter*). It is commonplace for countries to regulate baby names in order to ensure that there is no risk of undue harm to the child, but until 2008, Germany specifically required that names and middle names indicate gender assigned at birth. It was also required that the gender of a newborn be reported to the registrar at the same time as its name (Gesley, 2017). The introduction of this 2008 law opened the door for a more fluid conception of gender identity in the country, as well as room for further legislation to follow.

Five years later, in 2013, a new ruling announced that all subsequent birth certificates would include a third gender option for infants born with ambiguous genitalia. The purpose of this decision was to prevent parents of intersex infants from having to choose one gender for their child at the time of birth. Decades of medical research have shown that intersex individuals

who have their gender chosen for them often face significant and damaging internal conflict living with their assigned gender (Human Rights Watch, 2017). Such studies have shown that up to 40% of individuals born intersex have the wrong sex assigned to them while still children. More recent legal and medical protocol has involved raising intersex children without the assignment of a gender in order to allow the child to choose their own gender identity naturally as they age (Human Rights Watch, 2017). The 2013 decision has been hailed as a major victory for Germany, which is widely believed to be the first European country to enact such a law (Eddy & Bennett, 2017), as the legality or illegality of a certain identity in a country contributes to the public comprehension of that identity as normal and acceptable. A November 8, 2017 decision by the German Federal Constitutional Court went further in ruling that a third gender option must be included on all public documents by the end of 2018, signaling further support that includes non-binary individuals who are not intersex (Eddy & Bennett, 2017; Maxwill, 2017).

Legalizing non-binary identities allows for the institution of federally-subsidized programs for medical treatment and psychological support, as well as for school- and family-oriented support programs. Such developments give non-cisgender individuals access to support at a much younger age, which can be critical to their psychological well-being. As has been indicated in many studies and will be addressed later in this paper, early life stress (ELS), as the term suggests, has the greatest impact during the first years of life, and it is often implicated in the later onset of mental illness and suicidal ideation in individuals (Pesonen & Räikkönen, 2012). The increase of support at the national and governmental level may therefore be crucial to the neurotypical development and mortality of such marginalized populations.

Finally, legal progress in countries' acceptance of LGBTQ+ identity has been indicated as a major factor in the reduction of suicide risk of LGBTQ+ individuals in those countries. The legalization of same-sex marriage in the United States, in particular, has shown increases in public acceptance toward the community in major urban centers, including the improvement of LGBTQ+ individuals' relationships with peers and family members, according to a study by Raifman, Moscoe, and Austin in 2017. Overall, the study found that legalization in this particular instance showed a relative drop of 7% in the United States' adolescent suicide rate, with a particularly large effect seen among adolescents who identified as sexual minorities. The legalization of same-sex marriage in the Commonwealth of Massachusetts in 2004 resulted in greatly lowered levels of spending on and usage of mental health-related services within the male LGBTQ+ community in the state (Hatzenbuehler et al., 2012).

Conversely, Raifman et al. (2017) found that banning same-sex marriage and removing LGBTQ+ civil rights in communities has historically been tied to an increase in the prevalence of psychiatric disorders in individuals in those places. Hatzenbuehler, Keyes, and Hasin found in 2009 that GLB-identifying individuals living in the nineteen states in the U.S. that did not have workplace non-discrimination and anti-hate crime laws in place for LGBTQ+ citizens showed significantly higher levels of mood, anxiety, and substance-use disorders than those living in states that did.

These statistics mirror those observed in studies done in European countries that have recorded mental health and suicide attempts in adolescents with non-heterosexual identities (Davis, 2017). Germany's recent legal progress toward the recognition of a variety of different sexual orientations and gender identities therefore holds promise for the further improvement of mental health and reduction of suicide risk within the LGBTQ+ community. As suicide and

suicide-attempt rates within the transgender population are significantly higher than those of even the greater LGBTQ+ community, it is particularly significant that Germany has begun to pass laws concerning gender identity. The evidence that legalization of an identity improves public perspective on individuals with that identity shows promise for the reduction of the current discrimination against transgender individuals in Germany. Moreover, these laws encourage recognition of non-cisgender identities in federally-funded organizations and may encourage the development of more and better resources for transgender mental health in the country.

Lack of Research and Statistical Data on the Population

Unfortunately, the creation of sufficient health resources for transgender individuals in Germany has been difficult because accurate numbers concerning the size of the population are not available. Absolute census numbers are difficult to compile in terms of LGBTQ+ populations, as many countries' censuses do not record sexual orientation and/or transgender identity (Haas & Lane, 2015), and many individuals who identify as such may not wish to report it to their government. Additionally, attempts at recording population numbers by survey is a challenge, as the content and phrasing of questions is not kept uniform across surveys and countries. Finally, Germany itself has not kept a regular national census since 1910; this has left the collection of census data on the German population to various non-national groups (Kulish & Cottrell, 2013). For these reasons, it has been difficult for researchers trying to assess the need for transgender mental health resources in Germany to gather accurate statistics for its number of transgender citizens.

As a result, annual numbers for homicides and suicide attempts within the transgender population also continue to be challenging to collect. There have been a couple of efforts within the United States, which also does not collect census data on LGBTQ+ identification, and in Canada, to posthumously record sexual orientation in individuals who have committed suicide through the reports of their family and friends (Haas et al., 2011). Such efforts have not, however, collected the gender identities of victims. Germany has yet to attempt this form of "psychological autopsy" as a statistical collection method (Haas et al., 2011).

Other methods employed to assess numbers have included tracking usage of medical resources for transgender patients. In an article in the *Journal of Homosexuality*, Haas et al. (2011) provided data originally collected by the American Psychological Association (APA) on the prevalence of individuals who seek SRS at some point in their lives. They used statistics beginning in the year 2000 and found that one in 30,000 for those assigned male at birth, and one in 100,000 for those assigned female, had sought some form of reassignment surgery. However, these means of estimation are unreliable in that they do not account for the effects of stigma in a country on how many individuals seek medical resources. Countries with fewer or riskier opportunities for medical care, or whose transgender citizens face greater degrees of social stigmatization, likely see fewer transgender individuals living as the gender they identify with or attempting to access medical resources. Moreover, in a 1997 study, the Amsterdam Gender Dysphoria Clinic reported numbers in the Dutch population that were significantly higher than the numbers reported in the APA study, at around 1 in 10,000 Dutch citizens assigned male at birth and 1 in 30,000 assigned female. This challenged the likely validity of the numbers presented in the APA study. Haas et al. (2011) estimated that the Dutch numbers, even for the year they were collected, represent a much smaller population of individuals in both countries

who identify under the broad definition of transgender than is likely realistic, again due to continued stigmatization of the community.

The comparison of such estimations with anonymous mass-distributed polls collecting overall numbers of LGBTQ+ individuals between countries suggests that the prevalence of transgender individuals in Germany is likely at similar levels or higher than those in many Western countries (Mandell, 2016). Anonymous polls depend heavily on honest self-reporting by participants and are limited in the information they can collect but are a good means of collecting data from large populations. Additionally, their anonymous nature reduces the chance that participants abstain from taking part or lie about their orientation. Dalia Research published a study in 2016 after anonymously polling 12,000 participants from European countries on their LGBTQ+ identification and found that an average of 6% of their respondents self-identified as such. Germany came to the top of the list among participating countries, with 7.4% of German respondents identifying as LGBTQ+. When the Kinsey Scale, a 7-point spectrum designed to place an individual's sexuality between "heterosexual" and "homosexual," replaced the original poll, the number of European responders who identified as any category other than "heterosexual" rose to 10% (Dalia Research, 2016). The Dalia Research study did not publish statistics on individual group percentages such as transgender identity. As a point of comparison, The Williams Institute at the UCLA School of Law conducted a survey in the same year and found that 0.6% of American adults identify as transgender, while a 2016 poll by Gallup, Inc. published by Gates found that 4.1% of adults in the United States identify as "LGBT" overall. These statistics together would estimate that just under 15% of participants in this U.S.-based survey who self-identify as LGBTQ+ identify as transgender. Therefore, similar percentages of transgender individuals within LGBTQ+ populations could be present in other

Western countries. These estimates based off of 2016 data represent a jump of 300% from a 2002 study performed by Mathy, Schillace, Coleman, and Berquist, in which just 0.2% of respondents self-identified as transgender.

Various factors must be taken into account when observing the size of an LGBTQ+ community in a given country. Due to significant and ongoing discrimination and cultural adversity facing transgender populations today, as noted throughout this paper, actual statistics concerning the percentage of transgender individuals in the population are likely higher than reported. LGBTQ+ individuals living in countries with strict laws or strong discrimination against their lifestyle may feel unsafe coming out or unable even to explore their identities privately. Levels of acceptance within a population, as well as the presence of support systems in medicine and law, have an effect both on the number of individuals in the country who openly identify as transgender and on the risk of suicides in the community. For example, suicide risk is observed to be higher in individuals who do not come out due to pressure from their social surroundings (Marshal et al., 2011). Further factors are outlined in the next section of this paper, including their place in German society and their implications for suicide risk in the transgender population.

Statistics on Suicide and Suicidal Ideation

Suicide is a leading cause of death in most countries across the world. It is the second largest in adolescent populations between the ages of 15–24 in both the United States (Raifman et al., 2017) and in Germany (Tarchi & Colucci, 2013). In the 1990s, Germany reported the third-highest rate of "undetermined deaths" (Tarchi & Colucci, 2013, p. 22) in Europe after England and Wales (as a combined statistic) and France. The number of suicides in the country

has steadily decreased over the last decade and a half and, as of 2013, the youth suicide rate in Germany has fallen below the European average (Tarchi & Colucci, 2013). Little research during this period has studied causes of youth suicide. However, Wolfersdorf, Franke, and König found in 2002 that "young people with developmental crisis" (p. 22) form the fourth-largest group at risk for suicide in Germany, following those with mental illness, those with prior suicide attempts, and elderly individuals facing chronic illness. Studies by Blüml (1996); Weinacker, Schmidtke, and Loehr (2003); and Kirkcaldy et al. (2004) reported particularly high suicide rates in the German adolescent population, suggesting a period of particular vulnerability between the ages of 10–20. Suicide and suicide-attempt numbers are also heightened within minority populations across the world, in particular within those that face significant adversity in their countries. There is little data available concerning the suicide rates among LGBTQ+ adolescents in Germany, but some studies have been attempted in regard to those in the United States.

The National Transgender Discrimination Survey undertaken by the National Gay and Lesbian Task Force and National Center for Transgender Equality published a study in 2014 using data from 6,456 transgender-identifying adults in order to look at the prevalence of lifetime suicide attempts in the United States. Overall, 41% of the transgender community surveyed reported having attempted suicide at least once in their lifetime, with the rate among transgender men at 46% and among transgender women at 42% (Haas, Rodgers, & Herman, 2014). Among other minority groups such as cross-dressers, male-to-female (MtF) and female-to-male (FtM) transgender individuals reported the highest attempt rates. Numerous other surveys conducted throughout the last two decades have reported suicide attempt rates in transgender populations in the range of 25–43% (Haas & Lane, 2015). Comparatively, the lifetime prevalence of suicide

attempts within the general United States population is reported at 4.6%, one tenth of the percentage seen in the transgender population. Within the GLB community, the statistic is between 10–20% (Haas, Rodgers, & Herman, 2014). Raifman et al (2017) found that over 29% of adolescent GLB American respondents to their study had attempted suicide in the last year. This was compared to a 6% attempt rate among their heterosexual peers. In their 2008 study, King et al. found rates of suicidal ideation in the GLB population to be twice as high as those in the heterosexual population, as well.

The 2014 Haas, Rodgers, and Herman study implicated certain cultural factors in the dramatically elevated suicide risk among transgender populations. Physical or sexual abuse, homelessness, and the refusal of treatment from a doctor were the life events experienced most frequently among participants who had attempted suicide, at 63–78%, 69%, and 60% of participants, respectively. Included as well were considerations such as educational degree level, ability to "pass" as cisgender in public, identity as being "out" versus closeted, strength of family relationship, poverty level, and HIV diagnosis. The study obtained information on suicide attempts alone and its results did not account for numbers of suicides that resulted in death. Data on the prevalence of mental illness in respondents as a possible correlating factor was not recorded in the survey. As previously mentioned, the personal gender identity of a deceased individual is often unclear unless already legally documented prior to death, and therefore statistics on suicide and suicide attempts within the transgender community are likely higher still than those reported here.

Statistics like those in the above section, while lacking, nonetheless represent the significant impact that suicide has on the transgender community. Such studies also indicate the need for an expansion of statistical collection methods to document the scope of this impact as

well as the root issues influencing the extent of the suicide attempt rate. In the following sections, some of the positive and negative aspects of modern society in regard to transgender mental health are detailed, with a specific focus on those present in German society. The ways in which Germany has already responded to some of these aspects are also discussed, along with suggestions for further steps that can be taken in the future.

Positive and Negative Elements of Society in Regard to Transgender Suicide

There are a number of social factors believed to contribute to suicidal ideation among transgender individuals that are easily observable in German society and in other Western countries. While not all transgender people face abuse in the home, the vast majority experience backlash, bullying, and hate crimes on a daily basis in both school and public situations (Haas et al., 2011). Particularly if a transgender person is beginning to express their gender identity during middle school and/or puberty, school can be an unwelcome environment if not a threatening one, and may contribute to the development of symptoms of early life stress.

As such social stigmatization is one of the main factors that puts transgender individuals at high risk for depression and suicide, a number of studies have been conducted concerning its prevalence in different social contexts. These have included observing levels of discrimination from peers, family members, and authority figures such as teachers and doctors (Haas et al., 2011). Goldblum et al. conducted a study in 2012 on in-school violence and found it had been experienced by 44.9% of their 290 adolescents surveyed. Grant et al. (2011) found that 78% of transgender and gender non-conforming individuals in grades K–12 experience harassment in their daily lives, while 35% face physical violence. 15% of the participants in this study reported even having had to leave school as a result of the severity of the abuse.

Transgender individuals are also at a disproportionately high risk for sexual abuse. Statistics from the United States show that one in two transgender people report having been sexually assaulted at least once during their lifetime (Office for Victims of Crime, 2014). Grant et al. reported this statistic to be already as high as 12% for transgender youth in K–12. As indicated in Haas, Rodgers, and Herman (2014), physical and sexual abuse are two of the most significant cultural risk factors implicated in the development of suicidal ideation, particularly among transgender populations. In such an early period of neurological development, in particular, both have been shown highly likely to cause lasting neurological damage in survivors as they age (Glaser, 2014).

A further danger for transgender youth experiencing these types of abuse is that some researchers and professionals dispute the extent of the adversity they face. Statistics for suicide attempt rates in the LGBTQ+ community, due to shockingly high numbers in comparison to the greater population, have been challenged in twenty-first-century literature. In a 2001 paper, for example, Savin-Williams claimed a discrepancy between the rates reported for suicide attempts and suicides in heterosexual and sexual-minority individuals, and cast doubt on the belief that sexual-minority individuals truly face an increased risk of suicide. The article cited "false positives" in the sexual-minority adolescent population as a misleading factor in the reporting of existing suicide attempt numbers. The claim in the paper that "suicide is a rite of passage for being young and gay" implies a lack of validity in the extent of the adversity young LGBTQ+ individuals face. Instead, it perpetuates a notion that suicide is a commonality within or even a defining feature of the community. This encourages such an understanding both in the medical community and in the public sphere and impedes efforts to divorce the act of suicide from the image of LGBTQ+ identity. Literature that casts doubt on the legitimacy of LGBTQ+ patients'

self-reporting of symptoms takes away from patients' ability to have an authoritative voice in their own treatment and therefore jeopardizes their safety. It also has negative implications for the progress of healthcare coverage: such reports hinder the advancement of medical, legal, and social support systems for such groups by questioning whether the discrimination they face truly warrants national-level intervention. Sexual-minority and gender-variant groups face a very real risk of suicide attempts and suicides, which become a greater threat around the time of adolescence and can extend deep into individuals' adult lives. Although suicide statistics in the transgender population may appear staggeringly high, it is important that legitimate social explanations for such numbers be investigated instead of dismissed or overlooked, particularly when the issue at hand is one of life and death.

The history in popular culture and literature of pairing of suicide attempts with non-heterosexual identity also normalizes suicide in the LGBTQ+ community instead of working to reduce it. The "Werther effect," so named for Johann Wolfgang von Goethe's novel *The Sorrows of Young Werther* (*Die Leiden des jungen Werthers*) (1774), which inspired it and depicted the ultimate suicide of a young man, provided an early example of the potential danger of romanticizing suicide in media due to the risk it poses for imitation suicides. In 1920s Germany, with the significant increase of gay representation in the public sphere, numerous works were published featuring the deaths of gay characters, often in the name of unrequited love (Wakefield, 2015). These included the Klaus Mann novel *Treffpunkt im Unendlichen* (*Meeting-Point at Infinity*) (1932), along with a number of Mann's other works. This trope has survived into more modern times, as well. The 1980s television show *A Student's Death* (*Tod eines Schülers*), which depicted a student committing suicide by jumping in front of a train, was followed by a spike in train-related suicides (Hunger, 2017). Major films including *Philadelphia*

(1993), *Brokeback Mountain* (2005), and *Black Swan* (2010), among many others, have featured the death of a major character who is either openly gay or implied to be. In an article for *The Guardian* in 2013, it was calculated that, among films nominated for Academy Awards since 1993, 56.5% of LGBTQ+ characters die, compared to 16.5 of heterosexual characters (Rawson, 2013).

A number of published works have claimed that a significant increase in suicide attempts in Germany followed the release of *The Sorrows of Young Werther* (Hunger, 2017; Ziegler & Hegerl, 2002). Other literature challenges this, maintaining that evidence has never been entirely conclusive (Phillips, 1974). However, imitation suicides are seen in societies across the world and, due to the influence and size of platform media reporting enjoys today, the World Health Organization (WHO) released guidelines in 2001 detailing what media reports can and cannot share about stories of suicide (Kogler & Noyon, 2018). Other responses have also been made in attempts to preclude the risk of imitation suicides. The Federal Ministry of Education and Research (*Bundesministerium für Bildung und Forschun*g) began a venture, also in 2001, to change representations of both transgender individuals and suicide in the media. The aim of this has been to reduce youth suicide numbers by treating the topics more carefully, focusing more on productive discussions about them than on romanticized portrayals (Tarchi & Colucci, 2013).

Suicide prevention programs in the country have also begun to look more critically at the role the media play in increasing or decreasing suicide and suicide attempt numbers. Of primary concern is the aforementioned movement to eliminate romanticized representations of suicide. The perpetuation of such stereotypes as typical to LGBTQ+ youth, or indeed the representation of suicide on public art platforms such as literature and film, encourages suicide as a common and consequential outlet for vulnerable populations. In the future, it will still be important to

dissuade LGBTQ+ youth from thinking of suicide as a "rite of passage" and to instead advocate for more open speech about mental health, more help-seeking behaviors, and the public advertisement of early intervention options.

One means of fostering such discussion is the creation of systems to improve social connectedness in the LGBTQ+ community. Austin and Goodman made suggestions in a 2017 article for ways to improve social support mechanisms and resources for transgender youth and adults. In particular, they analyzed the health effects of social stigma versus connectedness in the wellbeing of transgender and gender non-conforming adults. One form of social connectedness discussed in the study was that of the establishment of communities of transgender and gender non-conforming individuals with one another. Austin and Goodman found that forms of connection with peers with similar experiences, such as support groups, social networks, and social media groups, helped to increase the resilience of such individuals in the face of abuse and discrimination. Additionally, such social groups and connections have been shown to decrease suicide risk and to increase self-confidence and contentedness in individuals (Austin & Goodman, 2017).

Most major German cities have a variety of community-led support groups available to LGBTQ+ residents, with some specifically aimed toward certain subgroups such as transgender individuals. A number of websites and blogs compile and publish lists of support groups for LGBTQ+ individuals categorized by the city they are based in. Many of these support groups also offer their own websites, which often contain resources such as contact information for leaders of the group, links and phone numbers for suicide and other support hotlines, and FAQs about being transgender and the coming-out process. Although the majority of these are run independently by individuals and groups, some are led by professionals such as medical experts

and therapists. Support groups offer individuals the opportunity to speak with others who share similar identities and experiences to theirs and to form positive social connections. Isolation and discrimination are major factors in low self-esteem in sexual minority populations (Austin & Goodman, 2017), and support groups are one method of facilitating regular contact between individuals who otherwise may spend most days isolated from and/or discriminated against by their peers.

Sattler, Wagner, and Christiansen published a study in 2016 using data from German gay men where they found that social factors related to group support were predictive of lower levels of mental health issues among respondents. This included the presence of both gay and non-gay supporters in the participants' social lives. The study further suggested that the expansion of support systems in German gay men's lives could have a positive effect on their mental health. Research observing this effect in German gay women or in other LGBTQ+ communities is more limited, so it is unclear how exactly this effect is represented in such groups. However, such support groups are likely beneficial for most if not all members of LGBTQ+ populations: opportunities to connect with other LGBTQ+ persons in such numbers during everyday interaction may be rare or impossible and such connections allow individuals the chance to develop important relationships of mutual emotional support.

Strength of familial relationship is another social support factor that influences the mental health of transgender individuals. Extensive research has been done concerning the importance of strong support networks throughout childhood and adolescence as well as that of secure attachment in early life. Both can play vital roles in the development of a person's self-confidence and emotional stability (Haas et al., 2011). The neurological effects of secure and insecure parental attachment are also fairly well known. Secure attachment plays an essential

role in lowering cortisol in the HPA-Axis during early development (Glaser, 2014). Cortisol circulates in relatively high quantities during infancy and slows in production later as the child moves on from these critical early years; in survivors of abuse, however, the heightened level of cortisol reverses this normal healthy reduction and has the potential to cause lasting damage to the brain.

Some of these studies have looked specifically at LGBTQ+ individuals' relationships with their families. Ryan, Huebner, Diaz, and Sanchez found in a 2009 study that white and Latino GLB adolescents were more than eight times as likely to attempt suicide if they had experienced negative or rejecting behaviors from their parents/guardians during youth than those raised with supportive parents. Although this study did not provide evidence for related changes in the adolescents' brain development, it does suggest the particular risk facing LGBTQ+ individuals regarding insecure familial attachment during adolescence. Due to severe and ongoing societal stigma against transgender individuals, many experience fraught or nonexistent familial relationships, or their families do not support their gender identity and wishes for transition-related treatment (Forge, 2011). In some cases, this reluctance to support transgender youth can be partially attributed to family members' fear for their child's future as a vulnerable minority. This is of particular prevalence in countries where legislation condemns members of the LGBTQ+ population, or where social structures and prejudices reinforce significant stigma against those communities.

There have also been a handful of studies conducted regarding familial relationship specifically around the time of coming out. According to Plöderl et al. (2013), suicide risk likely peaks in the period between transgender individuals' becoming aware of their status as a sexual minority and the time of their coming-out; the study found this to hold true across all LGBTQ+

communities. Thus, the time surrounding coming out is a vulnerable one and may make individuals especially susceptible to positive or negative familial behavior. The primary finding among studies has been that relationships tend to suffer immediately following the coming-out but that the disclosure makes them stronger in the long term (Hank & Salzburger, 2015). In these studies, the presence of a positive familial relationship prior to coming out also predicted a greater degree of improvement following the disclosure. Sattler, Wagner, and Christiansen (2016) speculated that coming out, as it serves to make gay and lesbian individuals' relationships with others more honest and open, could be considered a form of group-coping technique. Gay and lesbian individuals who live out of the closet are usually able to maintain intimate relationships with friends and romantic partners more easily than prior to coming out (Sattler, Wagner, & Christiansen, 2016). Thus, coming out should be associated with more positive trends in relationships with friends and family in the long term, as well as lowered levels of depression and suicidal behavior.

Hank & Salzburger (2015) found further trends in family relationships for gay and lesbian individuals in Germany, particularly on the intergenerational level. While they wrote that younger generations of homosexual Germans speak with their families about their sexual identities to a much greater degree than older generations do, on average, homosexual respondents to the 2015 study reported a lower degree of emotional closeness with their families than heterosexual respondents did. This emotional distance was more notable in paternal relationships, with no statistical significance found in the study's measure for difference in maternal relationships. Sattler, Wagner, and Christiansen (2016) cited group-coping and gay affirmation from both homo- and heterosexual sources as being likely important sources of stress coping for the mental health of gay individuals in Germany. In the case of LGBTQ+ persons

who experience early life stress as a result of poor familial relationships, external sources of support such as friends and allies may be vital in terms of group-coping and recovery.

The National Center for Transgender Equality (NCTE) performed a U.S.-based study in 2012 and found that only 55% of transgender individuals' intimate relationships survive the person's coming-out or transition (Grant et al., 2012). This finding indicates that family relationships suffer just as much as or more so for transgender individuals upon coming out than for gay or lesbian individuals. The same study showed that only 43% of transgender individuals maintain most of their familial connections after coming out, though 61% reported that their relationships with their families improved at least slightly after the disclosure as time went on. 58% reported losing at least one important friendship after disclosing. Further, 19% experienced violence from members of their family as a result of coming out and 48% of those who experienced violence also experienced homelessness. Of individuals who experienced rejection and/or domestic violence from their families, 51% had at one time attempted suicide, compared to 32% of respondents who did not experience either rejection or violence.

As familial rejection, violence, and homelessness have been shown to be three of the factors implicated most significantly in increased lifetime suicide risk in transgender individuals, family members' reaction to disclosures of gender identity appears to play a large role in the prognosis of long-term mental health for the individual. Therefore, one important point of improvement for suicide risk in transgender Germans should center on coaching families and older generations in ways to respond supportively to their child's coming-out, normalizing the process of coming out on a greater social scale, and instituting national-level resources to support at-risk transgender adolescents after their coming-out.

A final major factor implicated in suicide risk in the transgender population is the lack of some healthcare professionals' cooperation with patients' wishes in transgender-specific healthcare. Independently of the existence of social support, the absence of medical support in a transgender individual's life can be a matter of deep concern for their mental health. There have been many complaints made regarding the current state of transgender care in Germany, some of which the country has sought to address, and some of which remain unanswered. One of the most common complaints is the seeming unwillingness of some doctors to treat transgender patients. Others concern doctors who do not properly educate themselves on sexual orientation and gender identity prior to treating their transgender patients, or they refuse to comply with their transgender patients' preferred pronouns, or even provide incomplete treatment (Messina & Hwahng, 2010).

These factors negatively affect doctor-patient trust and compromise patients' confidence in asking for and receiving the exact type of treatment and advice they require. When authority figures such as doctors show a lack of concern for their patients' voices in their own treatment, particularly within the transgender youth population, those patients can experience pronounced hopelessness and depression. Further, a caregiver's refusal to use a transgender adolescent's chosen name and pronouns undermines the adolescent's authority in their own identity and indicates a lack of willingness to act as a support system throughout certain treatment or transition options. As a result, such issues may lead to an increased risk of suicide in transgender patients. While the sources of these criticisms in many cases still exist, the German healthcare system has taken some steps in an effort to modernize and improve its approach toward transgender care. Some of these controversies and changes are outlined within a greater overview of the healthcare system's structure in the following section.

Controversies Within the German Healthcare System

The German approach to treatment for transgender individuals has many similarities to that of the United States, due in particular to Harry Benjamin's work here after leaving Germany in 1913 (Schilt, 2016), but there are also a number of notable differences. The most significant is perhaps that the German healthcare system uses a version of the World Health Organization's *International Statistical Classification of Diseases and Related Health Problems* (ICD) rather than the DSM. The ICD-10 diagnostic manual, unlike the DSM-5, contains a comprehensive record of somatic illnesses in addition to mental ones. Güldenring authored a paper in where she analyzed the effects of this distinction in regard to transgender healthcare. She argued that the inclusion of somatic symptoms in the diagnostic criteria for the umbrella of Gender Identity Disorders, as termed by the ICD-10, allows for a more holistic picture of its various diagnoses than the DSM, which is first and foremost a manual about mental disorders (although the DSM-5 edition clarifies that Gender Dysphoria in itself is not a mental disorder, but rather represents a community disproportionately susceptible to mental disorders due to social factors). Güldenring suggests that this approach by the ICD-10 serves to de-pathologize gender dysphoria because it is not classified within a manual specifically about mental disorders. The inclusion of somatic symptoms challenges the limited perspective of gender dysphoria as a mental illness by including a more physical basis for the diagnosis, and therefore making it more easily reconcilable with treatment options like surgery and hormone therapy, as opposed to just psychiatric drugs and psychotherapy.

However, the use of the term "Gender Identity Disorder" in the ICD-10 has also been criticized, as some believe the word "disorder" contributes to the pathologization of transgender patients. A current discussion in the field surrounds the potential change in the upcoming ICD-

11 from the term “Gender Identity Disorder” to “Gender Incongruence” as a response to this critique. The reasoning behind the criticism is that the use of the word “disorder” contributes to the way that the entry is categorized and treated by medical professionals. The classification of transgender identity as a mental illness may make it easier for doctors to prescribe their patients with psychotherapeutic approaches to treatment; however, the removal of the tag of “mental illness” helps to reduce the stigma surrounding transgender individuals in society and within the doctor-patient relationship. As one of the major complaints from patients regarding the current state of treatment in Germany has been discrimination and bias from medical providers, this should be an issue of primary importance in discussions for improvement going forward (Messina & Hwahng, 2010).

Germany’s Standards of Care (SoC) for transgender patients compose another model for the practice of medical and psychological treatment in the country today. The SoC are a set of guidelines for transgender healthcare that define the standards to which medical professionals are expected to adhere during the course of treatment. They have been published in several versions by the World Professional Association for Transgender Health (WPATH), previously named the Harry Benjamin International Gender Dysphoria Association (Schilt, 2016), and are currently on their 7th edition, which was released in 2011 (Nieder & Strauss, 2015). A team of German professionals first edited the SoC to suit the particulars of Germany’s medical field in 1997. Since then, three editions of the SoC have been released, and medical professionals and researchers in Germany have called for further updates to the German edition to keep it up to date with the current research (Güldenring, 2015).

The German transgender healthcare system contains specific regulations for the availability and timeline of obtaining certain treatments. A 1987 decision by the Federal Social

Court, which established the requirement of counseling for patients prior to providing them insurance reimbursement for hormone treatment or surgery, is still in place today. Currently, most patients are required to undergo twelve months of psychotherapy before beginning to take hormones (Nieder & Strauss, 2015). After this period, physicians employed by insurance companies must make a secondary evaluation of patients and approve them to move forward with treatment before the insurance company will support them. After patients receive this approval, insurance companies decide on the way they will help patients with the cost of their surgeries by individual case. Unfortunately, the physicians who perform patients' secondary evaluations are rarely specialized in transgender care, and usually rely heavily on the judgments of the psychotherapists involved (Nieder & Strauss, 2015). This is one point where the lack of medical professionals trained in treatment options for transgender patients represents a particular weakness in the field.

There are other deficiencies in the current system and in the Standards of Care. While the 2011 amendment to the SoC focuses chiefly on the development of long-term care plans for transgender patients – with particular emphasis on the patient's individual gender identity and its influence on their medical care – patient voices remain limited in influence overall. Two articles from 2015, the one by Nieder and Strauss and the other by Güldenring, highlight many of these areas of weakness. Rising concerns from the public argue that Germany's system for transgender medical care is discriminatory, and that many healthcare providers are biased against patients, or at the minimum misunderstand the variety of gender identities that can fall under the umbrella term "gender dysphoria."

The Nieder & Strauss article aims chiefly to propose new means of integrating patient experience and feedback into the philosophy of treatment, namely by including evidence-based

guidelines for transgender adolescent and adult patients. The intent is to integrate doctor-patient cooperation more fully into the current system. These guidelines are currently being written by a commission of scientific organizations in Germany and follow the S3 standard of the Association of Scientific Medical Societies (*Arbeitsgemeinschaft der Wissenschaftlichen Medizinischen Fachgesellschaften*, AWMF). The S3 standard is a designation that specifically requires that doctors and patients reach consensus on the course recommended during treatment, and that these recommendations stay up to date with the latest research in the field. In writing these new guidelines, the commission has also consulted representatives from transgender self-help groups from across Germany to collect their opinions on the current system. This action was intended to begin the amplification of the transgender individual's voice in transgender-specific healthcare. The implementation of these guidelines should further standardize Germany's transgender healthcare system in terms of methodology and hold providers more accountable for cooperation with their patients. It should also help to de-pathologize the existing treatment system by incorporating patient perspectives into the treatment plan.

This decision to better integrate patient voices has been an important one as many of the issues surrounding transgender healthcare and stigmatization are based in misunderstanding from the greater population. In terms of current research and guidelines, the lack of clarity between different gender identities in the existing literature and their distinction from mental illness has caused inconsistencies in the way medical professionals' understand their patients. While the current healthcare system continues to pathologize transgender individuals and mute their voices, it is difficult for a true and holistic view of their treatment needs to be formed. The magnification of transgender patients' voices in their own treatment should help to inform such views as well as knowledge of how social factors influence the onset of mental illness and

suicidal ideation. Some recent research has investigated the causes of suicide in relation to risk factors observed frequently in transgender individuals' lives, and further research into and input from transgender patients regarding these risk factors would assist understanding further.

Currently, transgender healthcare relies largely on information about the signs and symptoms of suicidal ideation drawn from the greater population. Among these data, the neurological causes of suicidal behavior are not fully understood, and more research into the area is necessary. However, it is believed that early life stress (defined in the next section) plays a large role in the later onset of suicidal ideation in individuals (van Heeringen & Mann, 2014), which may have strong implications for its onset in transgender individuals, who face exceptional levels of discrimination and abuse. The following section includes a review of some of the most common findings about brain changes implicated in suicide risk. These are discussed in conjunction with the social factors affecting transgender persons that have been addressed in the preceding sections, in order to draw possible connections between them and the degree of suicidal behavior in the transgender population. The existing research on suicide in the brain and related epigenetic factors may contain clues to how in particular transgender stigmatization reinforces suicidal behavior in the community, which could help to inform the types of social support and healthcare systems needed to reduce suicide risk.

Neurological Bases of Suicide in Connection to Social Factors

Existing studies that look at the neurological bases of suicide have approached the topic from both genetic and epigenetic perspectives and assessed the potential risk factors for both. One factor that has been well-documented in literature is the presence of a comorbid mental illness in the suicidal individual. Althaus and Hegerl (2004) wrote that mental illness is

identifiable in individuals who attempt suicide in up to 90% of cases, while 40–70% of those cases involve some form of depressive disorder. It is also of note that, while depressive disorders are observable in many individuals who attempt suicide, the causal relationship is unclear as many diagnoses are made after the suicide attempt has already occurred. However, the presence of suicide attempts early in life has been shown to indicate enduring poor mental health in individuals as they age (Raifman et al., 2017). The possible influencing factors and biological predispositions related to suicide have been widely researched for decades. Some of the most common findings from research are presented in the section below, with the aim of connecting certain of them to the social vulnerabilities most prevalent within the transgender community.

Many individuals who attempt suicide exhibit symptoms of suicidal ideation or a sensitivity to suicidal behavior prior to making overt attempts. Such symptoms of sensitivity can include markers such as increased stress in social contexts, impulsivity of nature, pessimism, and hopelessness (Hanson et al., 2015). Van Heeringen and Mann conducted a study in 2014 where roughly one half of their participants exhibited these predispositions. The study itself was focused on the claim that these predispositions are genetically-based and contained discourse on a number of such possible biological bases for heritable suicide risk. For example, van Heeringen and Mann reported that variances in brain volume, particularly reduction of frontal lobe grey matter, are largely hereditary and have indicated a heightened risk of suicide. Their study found that individuals who have attempted or committed suicide, who have first-degree relatives who at one point also attempted or committed suicide, show comparably abnormal frontal lobe volumes to those of their relatives.

Other observed differences in the brain volumes of suicide victims or those who have a history of attempted suicide include increased size in the thalamus and amygdala and reduced

volume of the dentate gyrus. Some of these changes are believed to be incurred epigenetically, through the experience of early life stress or through comorbidity with other early illnesses or mental disorders. The studies cited in van Heeringen and Mann used populations drawn from the greater population who were not specifically LGBTQ+. Little research has been done regarding whether or not specific differences are observable in the brains of LGBTQ+ individuals who attempt suicide. The majority of research outlined in this section is therefore applied to the transgender and greater LGBTQ+ community tangentially, based on what is known about the unique vulnerabilities they face.

Another study on the brain changes commonly implicated in heightened suicide risk was done by Merali et al. in 2004. They noted that levels of the neurotransmitters serotonin and TPH2 (tryptophan hydroxylase 2), an enzyme involved in serotonin synthesis, were different in individuals with suicidal behavior; both neurotransmitters showed an increase in the brainstem of such persons. Pharmacological methods targeting major depression have used research that concentrates on the interruption of serotonin and norepinephrine by corticotropin-releasing hormone (CRH) (Merali et al., 2004). Additionally, gamma-Aminobutyric acid (GABA) levels drop with the increased intensity of depression cases. Elevated levels of both CRH and GABA have been widely observed in some frontal cortical brain areas of individuals with depression and suicidal ideation. Merali et al. postulated that a change in the receptors for or in the relationship between these two neurotransmitters may contribute to suicidality in the brains of people with depression. Despite the presence of seemingly heritable brain alterations, however, epigenetic changes such as early life stress are some of the most compelling risk factors for suicide in humans.

Multiple longitudinal studies have shown early life stress, also called early life adversity, to be one of the most significant factors in predicting suicide later in adolescence (van Heeringen & Mann, 2014). Individuals who experience significant, and in particular ongoing, verbal, physical, sexual, and/or mental abuse during their early years of life are at much higher risk than the greater population of contracting serious mental illness later in life. These forms of mental illness may include anxiety, depression, PTSD, and at times schizophrenia and personality disorders, among others (APA, 2016; Güldenring, 2015). ELS does not signify the definite future onset of mental illness but can be greatly indicative of the future presence of one or more, especially as many individuals who experience ELS develop poor stress-reactivity and social skills as a result, and therefore continue to suffer from these effects throughout adulthood. All of the above mental illnesses have been observed to be comorbid with suicidal ideation and can increase the risk of suicide attempts in individuals who suffer from them considerably beyond that of the greater population.

Individuals who face abuse early in life and do not contract major mental disorders can still be at an increased risk of suicidal ideation. ELS remains a significant predictor of suicide independent of the presence of other mental illnesses (van Heeringen & Mann, 2014). Studies show that the first three years in a child's life are critical to rapid brain development and that abuse during this time can significantly impact a child's ability to develop healthy learning behaviors (Glaser, 2014). Included in the most significant symptoms of ELS are increased aggression and hyper-reactivity to perceived angry or negative facial expressions (Hanson et al., 2015). The early years of life are most strongly linked to later-life issues such as mental illness and suicidal ideation because they are periods of massive synaptic growth. Human brains contain about 100 billion neurons at the time of birth, each of which contain at least 10,000

synapses (Giannopoulou, 2012). Neurogenesis is at its most active immediately before and after birth, with the first major period occurring in the brain of the fetus roughly 40 days after conception, and the second within the first couple years of life. The subsequent pruning of synapses as the infant interacts with its environment is particularly sensitive to all learning experiences at this time, whether positive or negative (Giannopoulou, 2012).

For example, studies have shown that individuals who have suffered from ELS are able to identify negative emotion in videos of faces presented to them milliseconds before the general population is able to detect a change. This finding is similar to one in the brain behavior of individuals with suicidal ideation; van Heeringen and Mann (2014) wrote that such individuals show hyperreactivity toward negative facial expressions, suggesting particular sensitivity to rejection and defeat. Indeed, within the first year of life, infant brains prune synaptic connections which discriminate visual stimuli that do not regularly appear in their environment (Glaser, 2014). Instead, in order to use synaptic pathways more economically, infants tailor their brain circuitry to the characteristics most salient in their daily environments. For example, Pollak and Kistler implied in their 2002 study on facial expression responsiveness that maltreated children develop strong synaptic connections in their early years to process and respond preferentially to adversity and stress. This type of adverse training of the brain during such critical early periods results in young adults with poor social ability and can predict significant difficulty with future aspects of adult life, such as making friends and maintaining employment. Other long-term symptoms of ELS that affect daily life can include easy provocation, violence, lack of trust in others, difficulty maintaining interpersonal relationships, and trouble dealing with authority (Hanson et al., 2015).

ELS is believed to rewire neural circuitry in young children's brains and cause dysregulation in their stress-reactivity response. Research into epigenetic changes as a result of ELS has indicated probable involvement of the hypothalamic– pituitary–adrenocortical axis (HPA-Axis) in the development of dysregulated behavior and even suicidal ideation (van Heeringen & Mann, 2014). Dysregulated activity in the axis is believed to prevent individuals who show common suicide risk factors such as depression from adapting effectively to stressors, therefore making them more susceptible to suicidal behavior (Melhem et al., 2016).

Another observed epigenetic change in the suicidal brain is an increase in norepinephrine release, a symptom commonly seen in individuals with depression (van Heeringen & Mann, 2014). Norepinephrine plays a large role in social relationships and may therefore have a significant effect on the way depressed and suicidal individuals conduct and interpret their interactions with others (Moret & Briley, 2011). As transgender individuals are especially vulnerable to negative and abusive social relationships, norepinephrine may play an especially large role in depression and suicidal behavior in the population. Analyses of cerebrospinal fluid (CSF) in the brains of ELS victims have shown imbalances in both norepinephrine and serotonin; reduction of the norepinephrine metabolite MHPG and the serotonin metabolite 5-HIAA in the CSF point to significant deficiencies in both neurotransmitters as a consequence of the overproduction of both in the brain (van Heeringen & Mann, 2014).

Changes in brain volume are also often seen in ELS and suicide victims. The hippocampus, which mainly regulates learning, memory, and the autonomic nervous system, can be affected by early life neglect and stress, and can result in hyperactive stress response (Giannopoulou, 2012) as well as low self-esteem in victims (Davidson & McEwen, 2012). Such early adversities have been implicated in reduced hippocampal volumes (Hanson et al., 2015).

The hippocampus is so affected because it contains such a high density of glucocorticoid receptors in comparison to the rest of the brain, leaving it particularly vulnerable to the effects of excess cortisol (Fenoglio et al. 2006). The amygdala, which regulates emotion and attention and plays a role in decision-making (Albaugh et al., 2013), also suffers reduced volume as a result of stress and abuse. Such effects to the amygdala can result in anxiety and PTSD, as well as such factors as reduced social competency and heightened response to negative faces.

These are just a number of ways in which the effects of ELS are represented in the brains of individuals who exhibit depressive and suicidal symptoms. Research continues to explore the reasons for observed links between depression and suicide and associated changes in the brain, and much is still not known about them, particularly in relation to their effects on the brain within specific sexual minority populations. Further research is necessary, for example, to understand how the often-extreme early life stress and abuse experienced by many transgender individuals contributes to mental illness in the community. Such information would be particularly valuable in explaining the dramatically heightened risk of suicide among transgender individuals and in informing treatment within the healthcare system in Germany today, which still struggles to separate being transgender from the mental illness that so many suffer. The following section outlines the current treatment options offered within the German transgender healthcare system, including those designed to assist with the transitioning process and those concerning mental illness and suicidal ideation.

German Healthcare Options Geared Toward the Transgender Community

Germany's use of the ICD-10, as previously noted, structures the field of transgender treatment in a way that is unique from nations that rely on the use of the DSM-5. The ICD-10, as

the official classification list used in Germany, systematizes the way non-cisgender identities are categorized and treated by medical professionals. The ICD-10 still refers to gender dysphoria and other related diagnoses under the umbrella term of "gender identity disorders" ("*Störungen der Geschlechtsidentität*"). This encapsulates within the diagnostic manual transsexualism (*Transsexualismus*), dual role transvestism (*Transvestitismus unter Beibehaltung beider Geschlechtsrollen*), gender identity disorder of childhood (*Störung der Geschlechtsidentität des Kindesalters*), gender identity disorder (unspecified) (*Störung der Geschlechtsidentität, nicht näher bezeichnet*), and other gender identity disorders (*sonstige Störungen der Geschlechtsidentität*) ("Gender identity disorders," 2018; "Kapitel V Psychische und Verhaltensstörungen (F00-F99)," 2018). Thus, individuals who seek medical and/or psychological attention for gender-related concerns will be categorized under one of these diagnoses, and this will affect the way they are viewed and treated.

The two main criteria for gender identity disorders in the ICD-10 are "strong and persistent" identification with and acting as the opposite sex and discomfort with "his or her sex" (assigned at birth). The latter criterion includes the persistent desire to change primary and secondary sex characteristics. The category "transsexualism" is essentially synonymous with that of "gender identity disorder (unspecified)," with the distinction that transsexualism specifically encapsulates the community of those who have already undergone surgery. Gender identity disorder of childhood is defined as gender dysphoria in individuals ages 0–17, exclusive of transsexualism or gender identity disorder of adolescence and adulthood. Dual role transvestism is the diagnosis given to individuals who, among other symptoms, are characterized by the desire to dress and behave within the traditional social roles of the gender opposite that assigned at birth. Individuals who do not fall under one of these categories are diagnosed within

"other gender identity disorders." It is important to note that, though translations of the German- and English-language versions of the ICD are made to be as similar as possible, the preceding entries use definitions drawn from an online database and are the English-language versions of the diagnoses in question. The definitions are characterized by the frequent use of the words "disorder," "urge," and "desire," all of which promote the pathologization of those patients diagnosed with them. As mentioned previously, certain groups have called for the upcoming ICD-11 to de-pathologize this category of diagnoses by changing the term "Gender Identity Disorder" to "Gender Incongruence," which could include the alteration of such wording in the definitions as well.

The pervasive desire to appear more physically similar to the gender a transgender person identifies with is a primary criterion for diagnosis of Gender Identity Disorders in the ICD-10 ("Gender identity disorders," 2018). Not all transgender or genderqueer persons are interested in pursuing surgery and/or hormone treatment, but such treatment is essential to the ability of many to live healthy and happy lives (Austin & Goodman, 2017). There are a number of reasons individuals choose not to seek surgical treatment, including financial or legal barriers, the potential of medical complications, or simply the lack of a desire or need for surgery in order to identify with their gender.

Cosmetic surgeries such as facial reconstructive surgery allow transgender people to "pass" as cisgender, making them appear biologically more similar to the gender they identify with. Facial reconstruction may possess additional benefits for patients, such as allowing them to move about in public with a reduced risk of falling victim to a hate crime. The surgery often includes alterations including reshaping of the jaw and brow bones to make an adult face appear more masculine or feminine (Bebinger, 2017). Top surgery, or the addition or removal of breast

tissue, is another method of making the individual appear more like their true gender on the outside. Genital surgery can often be seen by the public as the most permanent and vital surgery to transsexual identity, but is often in fact less important to the transgender individual than the more visible facial and chest surgeries (Bebinger, 2017). One of the social factors that has been shown to heavily influence depression and suicidal ideation in transgender individuals involves this ability (or lack thereof) to "pass" in public as the gender they identify with.

This ability to appear as one identifiable gender or another is also often still crucial to acceptance from the greater public. This bias is shown in the original reasoning behind Germany's naming laws, which claimed that the clear gender expression of a name was important to the child's ability to live well in society (*Bundesverfassungsgericht*, 2008). Though binary physical representation ought not to be a prerequisite to social acceptance, successful physical transitioning is often very important to transgender individuals for this reason, particularly in regard to their self-image. In the long-term, normalization of non-binary identities in public perception would hopefully have an influence on the importance of "passing" in public and backlash against those who do not. Regardless of the advancement of non-binary identity, however, transgender individuals' ability to appear as the gender they identify is important as it can help them to reconcile their inner and outer conceptions of self.

Despite the importance of surgery, opportunities in Germany are limited by the significant courses of pre-operative psycho- or hormone therapy and tests required for patients by the vast majority of doctors. There are also limited doctors trained to practice SRS in the country (Trans HealthCare, 2018). The increase of the number of professionals trained to perform SRS would contribute to the quality of care available and patients' abilities to choose their doctors by best fit. More visibility for the transgender population, de-pathologization of its

image in the medical field, and the decrease of social stigma would help more individuals to live openly and seek treatment and might encourage more doctors to specialize in their care.

In terms of care for depressive and anxious symptoms in transgender patients, aside from psychotherapy, drug treatment is often the solution chosen by psychiatrists and other medical professionals. This normally accompanies one or multiple forms of therapy designed to help the effects of social discrimination and abuse. Van Heeringen and Mann summarized in 2014 the most effective drug intervention methods currently in practice. Among these were selective serotonin reuptake inhibitors (SSRIs), utilized to stabilize dysregulation in serotonin production in the brains of severely suicidal persons. In a clinical trial, SSRIs were more effective than norepinephrine- or dopamine-based drugs in improving patients with pronounced suicidality. Lithium, too, has been used to reduce the risk of suicidal behaviors in patients, and in particular is believed to be effective due to the fact that it has been shown to increase grey matter volume over time (van Heeringen & Mann, 2014). Lithium treatment thus may provide a longer-term solution to lowered suicide risk. Finally, van Heeringen and Mann reported that new drug treatments are being developed including one aimed at changes in the HPA-Axis that influence suicidal behavior.

Brain-imaging techniques have also proven useful in identifying suicide risk and severity, as serotonin levels are observable through scans of living brains, but not dead ones. Because of this, it can be difficult to posthumously assess the severity of suicidal ideation in the brains of suspected suicide victims. Brain-images have proven themselves better predictors of suicide risk in patients than clinical intervention in some studies (van Heeringen & Mann, 2014). Genomic testing sees similar success in predicting suicidal behavior (van Heeringen & Mann, 2014). Knowledge of the patient's genetic history and makeup can inform doctors and therapists

seeking a holistic background on their patient while crafting a treatment plan. Such scans and tests may therefore be vital to the mortality of populations with high risk of suicide, like the transgender population. According to the study by van Heeringen and Mann, one-third of all suicides are carried out successfully in the first attempt. Therefore, treatments in the future should focus on early detection methods including brain-imaging for patients believed to be at-risk.

Brain imaging, genomic testing, and surgery, however, are all expensive options that are not open to many individuals. Many transgender people are homeless or unemployed due to a combination of factors including early and consistent discrimination from employers, a lack of support from their families, and the development of psychotic disorders as a result of this severe adversity (Grant et al., 2012). Psychotherapy and drug treatment, if even these are accessible, are often the only options for transgender patients because they are less expensive than surgery. The price of surgery means that it often requires patients to acquire a health insurance plan to help with repayment. Additionally, surgical treatment almost always involves multiple operations, and, moreover, is still being developed, meaning that there are often complications (Fenway Health, 2015). Willing family members and friends, of whom there may be few, are often needed to assist the individual with physical tasks during the recovery period. All of these factors contribute to the inaccessibility of surgery as a treatment option. This means that many transgender people spend decades or a lifetime living in a body inconsistent with their gender identity and experiencing the persistent desire to change sex characteristics without the ability to receive adequate medical treatment.

When surgical treatment is possible, as previously mentioned, therapeutic care is often a required component of the process. Small percentages of patients who opt to undergo surgery

are later dissatisfied with the result or regret their decision. A number of studies have been conducted concerning the elevated suicide risk among transgender and transsexual individuals undergoing surgical treatment and hormone therapy (Haas et al., 2011). In one, it was found that the suicide rate for post-operative transsexual individuals was 800 in every 100,000 individuals compared to 11.5 suicides in 100,000 people within the general population of the United States. As surgery is irreversible, doctors often use postoperative therapy in an attempt to minimize the heightened risk of suicidal ideation stemming from regret. When a surgery is rushed, patients experiencing regret can suffer from increased body dysmorphia, leading to inconsistent adherence to postoperative care procedures, and thus the potential for surgical complications and/or medical emergencies (Haas et al., 2011; Güldenring, 2009). This regret tends to be more pronounced in patients who are of younger age groups and who do not receive therapy and consultative treatment prior to surgery (Fenway Health, 2015). Therapy courses normally include a pre-operative period during which a therapist or psychiatrist educated in transgender-specific healthcare meets with the patient to discuss their options and motivations for pursuing treatment. Therapy usually continues throughout the surgical process and afterwards, in order to monitor the patient's physical and mental period of recovery (Fenway Health, 2015).

Another method professionals use to ensure that surgery is the right course involves directing patients to live openly as the gender they identify with for at least one year before undergoing permanent surgical alteration (Bowman & Goldberg, 2006; Unger, 2016). Many hospitals and medical centers that offer reconstructive surgery to transgender patients have their own standards about the exact length of time this step should entail, but one year is a common period. This period of time is intended to give the patient adequate time to make their decision and to become accustomed to living out as the gender they identify with. It is also used so that

healthcare and insurance providers can judge whether a patient is ready for surgery (Nieder & Strauss, 2015).

The above are the diagnostic and treatment methods that are most used within the German transgender healthcare system. It is important to note that the treatments for suicidal ideation cited within this paper have been found to be generally effective for patients using data from the general population only. Though numerous unique factors are thought to influence the presence of suicidal ideation in LGBTQ+ patients, there is little research in today's literature that has focused specifically on treatments geared toward suicidal LGBTQ+ patients or that draws data from their populations. Therapy is currently the first and broadest mode of treatment utilized to treat patients for general issues related to suicidal symptoms, and drug treatments are used to target more active risk of suicide attempts or self-harm. Further research is necessary to determine how significant a role these unique factors play in suicide risk in LGBTQ+ and specifically transgender individuals, so that treatment methods can be better specialized to address them.

Applications to Future Research and Social Change

As expressed throughout this paper, further and more specific research is needed in order to assess the extent of the risk of suicide within the transgender population in Germany and to devise better treatment options. Ultimately, however, the greatest issue lies in the lack of understanding within the public surrounding transgender and non-cisgender identity. This fuels stigmatization of and discrimination against the transgender population which contributes to individuals' experience of early life stress and often, later, suicidal symptoms. Thus, the root of the issue and the factor that should be approached first is the increase and normalization of

transgender representation in public. This should include the opening of conversations on transgender issues in the media as well as movements for legal progress for the community's rights. The collection of data on the effects of the adversity faced by transgender persons should assist these efforts by providing concrete evidence to support legal and social reform. This final section will outline some first steps that can be taken to reduce the risk of suicide in the transgender community and improve individuals' lives in the long-term.

One of the most significant points of improvement, as mentioned, would be the institution of a system for collecting statistical data on suicide attempts, suicides, and mental health in the transgender and greater LGBTQ+ community in Germany. As there is currently no system in place, and as there is currently no reliable census to record data on sexual orientation, it is impossible for medical and psychological health centers and legal bodies to acquire accurate numbers of LGBTQ+ individuals in the population. Thus, they cannot assess the extent of the need within the community for improved social and medical support. The existence of such statistics would better express the degree of need within the transgender population and therefore hopefully warrant improved healthcare and increased support in social and legal systems.

Denmark is an example of one country that has instituted this data collection in one form or another. Unlike many Western countries, Denmark records sexual orientation on its census, and is therefore the subject of much study regarding LGBTQ+ populations (Haas et al., 2011). Its comparative wealth of data on trends in sexual orientation and related health concerns has provided the country with much more information than other countries on the vulnerabilities of LGBTQ+ populations within their populace, as well as the types of social changes that have historically helped the wellbeing of such groups.

Denmark's recent statistical reports have also shown much higher rates of suicide in non-heterosexual men than data from other countries has provided. As Denmark is a country that has enjoyed a historically – and continually – high level of acceptance and support for LGBTQ+ individuals (Sopelsa & Gutierrez-Morfin, 2016), this data has challenged the validity of suicide rate statistics reported by countries that do not identify sexual orientation on their censuses. Countries without this data, and which are less accepting of LGBTQ+ identity than Denmark, likely suffer underreporting regarding LGBTQ+ suicide rates due to the ineffectuality of their data collection systems in assessing the true volume of their LGBTQ+ populations (Haas et al., 2011). The institution of a program like Denmark's in Germany would take time, as would collecting significant amounts of data, but to do so would capture information needed to effect long-term, meaningful change in the medical, legal, and social spheres of the country to provide better care for LGBTQ+ individuals.

Another related approach would be to include sexual orientation and gender identity in independent research studies investigating suicidal ideation, suicide, and mental disorders in the general population. Of further benefit would be to increase the amount of research specifically targeting the LGBTQ+ population and the communities within it. There is very little existing research that has specifically attempted to quantify suicidal behavior in LGBTQ+, and particularly transgender, people. Most of the work that has been done, moreover, has been non-experimental (Haas et al., 2011). This has left valuable data on LGBTQ+ individuals out of the richer data sets that capture the greater population and has hindered medical centers' ability to be properly informed about the needs of their transgender patients (Nieder & Strauss, 2015). Additionally, while research into neurological changes implicated in suicidal ideation is ongoing, specific concentration on possible changes in the brains of transgender individuals, who are

uniquely affected by discrimination, may be helpful in developing understanding on how social factors contribute to suicidal behavior. Although sexual orientation and gender identity can be difficult to measure, as both exist on a spectrum and rely entirely on self-reporting from participants, their collection would broaden the relevance of data sets and add depth to countries' and healthcare systems' understandings of the mental health trends across their different cultural groups.

Papers like that of Haas et al. (2011) have proposed the introduction of longitudinal studies observing LGBTQ+ individuals at different points in their lives in order to account for potential changes in suicidal ideation throughout the lifetime and to note particular influential factors. Such studies could also better observe changes in suicidal behavior surrounding milestones such as recognition of sexual orientation and/or gender identity during childhood, adolescence, and adulthood. Another broader form of research could include international data collection studies comparing transgender experience, diagnostic trends, and treatment opportunities between countries. This type of study could help to measure the effectiveness of current approaches across a variety of cultures and communities. More expensive and time-consuming studies like these would also require greater funding for LGBTQ+ research than is currently available (Haas et al., 2011). However, such research is likely necessary to providing adequate healthcare resources to lower the risk of suicide in the transgender population.

While expansion of research into transgender mental health is important as an immediate response to suicide risk, longer-term improvements should include the depathologizing of transgender identity in social and medical constructs. Although there is a plan to change the ICD term "Gender Identity Disorder" to "Gender Incongruence" in the next edition of the manual, it is the ultimate goal that the terms are removed from medical lists and manuals as a condition

altogether. As long as transgender individuals are represented in publications about mental disorders, even when it is noted that the entries are there to account for significant adversities and heightened levels of mental illness within the community, stigma surrounds the diagnoses. This makes it difficult for the public image of the transgender community to be separated from mental disorder and illness. It is also not a necessity that transgender identity be in such manuals as a protective measure: most other minority groups that face systematic oppression are not represented in the DSM or the ICD, but rather use other means to address their particular vulnerabilities within medical contexts. Denmark, for example, already does not require psychiatric diagnoses by a professional for transgender patients to legally change their gender (Ansari, 2017). The fact that Denmark alone does not require this shows the enduring lack of understanding within European countries regarding transgender identities and individuals' voices in naming their own gender identities. In the future, a removal of "Gender Dysphoria," "Gender Incongruence," and other related terms from psychiatric diagnostic manuals would help to reaffirm transgender persons as authorities on their own identities and to destigmatize non-cisgender identification.

Above all, as established throughout this thesis, the greatest issue feeding stigmatization of transgender individuals is the general confusion regarding how to think about and conceptualize non-cisgender identity. The lack of statistics available and lack of conversation in the public sphere have made transgender and non-binary identity an un-discussed and un-thought-of topic for most of known history. However, eras including nineteenth- into twentieth-century Germany and the modern day show that publicly representing such identities can foster great leaps in understanding and acceptance within legal, medical, and above all social bodies. The most important step toward accomplishing further progress in this vein is to increase

transgender representation in public perception and in research data collection. Without visibility and statistics about transgender individuals, it is nearly impossible for countries or their populations to understand transgender identities within larger contexts. The continued association of transgender identity with mental illness in healthcare systems and in the media separates transgender persons from the greater public and uses pathologizing stereotypes to perpetuate this divide. Therefore, the perceptual adjustment away from a binary understanding of gender identity is likely necessary for the acceptance and wellbeing of the transgender community. This appreciation may contribute to more fluid and non-pathologized understandings of gender identity and transgender care in medical and psychiatric fields, as well. Implementing such changes in the future may be the most effective way to address the adversity faced by transgender individuals and give them the opportunities they need to live healthy and fulfilling lives.

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