Effects of Medical and Social Transition on Health and Well-Being: A Sociological Study Among Transgender Females in Odisha

Nibedita Dubey¹, Manosmita Mahapatra²

¹Department of Sociology, GM University, Sambalpur, Odisha, India.
²Department of Sociology, Ravenshaw University, Cuttack, Odisha, India.

Abstract - The study seeks to focus on the most discriminated and stigmatized community of transgender females suffering from various intriguing issues, including economic, psychological and especially health and well-being. They stand deprived and marginalized and continue to exist as victims of domination from society's point of view. The scenario of transgender in Odisha is also seen from gender dysphoria or gender incongruence and identity disorder perspective, and situating transgender females in the modern context of their acceptance to the larger society becomes a challenge in the contemporary era. Taking 150 respondents as its sample size through snowball sampling, the study is carried out utilizing both primary and secondary sources of data collection in two districts of Odisha. Moreover, information regarding their type of gender transition and the methods they used, views regarding their self-satisfaction and its effect on their health and social relations were also emphasized to reveal the effects of medical and social transition on health and well-being. It helps to understand the issues of marginalization, identity, medical therapy and the effects of medical and social transition on them, highlighting the intra-community life experience and human relationships from the point of view of transgender individuals. It is observed from the study that medical transition helps to treat gender dysphoria and body dissatisfaction among transgender female, affecting their rate of social acceptance. The socially transitioned transgender females have higher self-confidence and positive feelings after the social transition. Hence, gender transition could be considered as healthy and acceptable to treat gender dysphoria but not sufficient to increase the acceptability of transgender within society.

Keywords - Health, Social transition, Transgender female, Medical, Self-confidence.

1. Introduction

Transgender is an umbrella term that indicates people having discomfort or incongruence with the body they are born with. Transgender females are the persons who are assigned the male body during birth but want to identify and live like a female discourse of gender; different words have been used to describe the condition of body discomfort, such as gender dysphoria or, gender incongruence or gender identity disorder. The persons having gender dysphoria not only have discomfort with the body but also wish to remove those organs as they do not feel aligned with especially the genitalia. The situation is aggravated more among transgender due to the conception of being misgendered or labeled as different to their own perceived gender identity. Persons with gender dysphoria have a high prevalence of mental disorders such as depression, anxiety, and suicidal ideation (Ainsworth & Spiegel, 2010; Frew et al., 2021; Aldridge et al., 2021; Aitken et al., 2016; Tordoff, 2022). Additionally, it is linked to the high HIV and cancer prevalence among persons who conceal their identity due to stigma and mental distress (Cooper et al., 2020; Meyer & Frost, 2013).

Historically, the identity of the transgender, especially transgender females, is stigmatized within society. Due to their unaccepted identity, they are discriminated against within their family and leave their family at an early age. Several researchers have found higher numbers of unemployment, poverty, illiteracy, lack of choice of occupation, significant discrimination in accessing house and land and multiple violence among transgender females (Lombardi, 2009; Russell et al., 2011; Nanjundaswamy 2015; Aneesh Ms., 2017).

In India, the transgender communities, especially known as shelter homes among transgender females (Semmalar 2014), have peculiar characteristics to be regarded as having religious significance with their age-old traditions, occupations, rules, and regulations (Goel and Nayar 2012). These communities help them not only regarding shelter and occupation for their livelihood but also transgender female can live as their perceived gender by doing activities such as changing their name to a feminine name, wearing feminine clothes, putting on makeup and so on. This social
transformation, in scholarly words known as a social transition (Oslen et al., 2016; Morandini et al., 2023). Social transition is a process that does not involve medical intervention but only changing gender through modification of documents from male to female, changing their name/pronunciation and through appearance, such as wearing clothes and make up. The social transition is highly prevalent and desired among transgender female as it not only satisfies their fetish regarding cross-dressing but also is not expensive.

Due to the vast development in the field of medicine and surgery, body discomfort or gender dysphoria can now could be treated through medical intervention, which is known as a medical transition (Ainsworth & Spiegel 2010). Treatment of gender dysphoria through surgeries and hormone therapy is an emergent field and is desired by most transgender females as a feminization therapy. It includes different gender-affirming surgical processes such as sex reassignment surgery (vaginoplasty and Vulvoplasty) (Monstrey et al., 2011), breast augmentation, facial feminization surgery, hair laser treatment (Ozer et al., 2021) and through hormonal intervention. Breast augmentation, sex reassignment surgery, hormone therapy and lazer facial hair reduction are the common methods used by transgender females for medical transition.

However, the treatment of gender dysphoria through medical therapies comes with certain complexities and negative consequences on the body and mind due to surgeries and risks associated with surgical processes (Olson et al., 2022; Martins, 2023; Cipres et al., 2023) such as vaginal bleeding, pelvic pain, mood swings, urinary infections and alopecia weight gain or loss etc. (Martins 2023; Cipres et al., 2023). In the case of treating mental disorders and suicidal thoughts through medical transition, the mortality rate through suicidal ideation and suicide attempts is still higher after sex reassignment surgery among transgender females.

In contrast to the above argument, researchers also found some positive impacts of gender transition from both medical and social transition. Feminization processes such as changing name/pronounce, changing appearance or representation, feminization surgeries, and hormonal therapy have a greater impact on people with gender dysphoria to lower mental distress and increase quality of life (Aldridge et al., 2021; Chaovanilikit et al., 2022; Kuper et al., 2020; Oslen et al., 2016; Papadopulo et al., 2017; Rosenberg et al., 2019) and their well-being (Hughto et al., 2020; Turban et al., 2023). However, family and social acceptance and social relationships play a major role in improving gender dysphoria (Sievart et al., 2021).

Transition, especially medical transition, varies across countries as it depends on the law of that country, while the experience of transition also differs from person to person. Some transitioned at a very starting age, and some took time (Afiquah et al., 2022). In India, although after the NALSA judgement, laws are favorable for the transgender community, but the study on their gender transition is disproportionately lesser.

1.1. Research Gap

In India, any attempt to study transgender specified attention has been given to their position relating to social structure as the marginalized community with an emphasis on their hardship, livelihood problems and accessibility of basic amenities. The published research in India on gender transition among transgender females mainly focuses on surgical processes and accessibility of healthcare facilities relating to surgery. Its implications on health and well-being need serious attention. With this backdrop the present research study aims to examine the aftermath issues related to medical transition. Therefore, the significance of the research lies in going beyond the bio-medical implications of the medical transformation and also in taking into account the psychosocial implications of these procedures.

1.2. Statement of the Problem

In the past few decades, gender transition surgeries have been increased exponentially among transgender people with a desire to attain a feminine identity. Transgender people are born with male anatomy, but female attitude is stigmatized and considered deviant based on societal norms. To overcome the incongruence between their body and mind and to get social acceptance, gender transition has become an emerging drive among the transgender community. However, it is evident that the growing number of surgical processes among transgender people to acquire femininity has serious outcomes specifically relating to their bodies. Although the issues related to medical transition have gained recognition globally, there has been very few research in India focusing on the implications of gender transition. Therefore, it is imperative to examine whether the medical transition tends to aggravate their problem of gender congruence/incongruence and whether the transition helps them to meet their desires (acquisition of feminine identity).

Against this background, the present study based on Odisha attempts to study the emerging issues regarding the gender transition experience of transgender females with special reference to medical transition. The study aims to delineate the effect of gender transition on the health and well-being of transgender individuals. The primary objective of the study was to examine the impact of gender transition on their health and well-being and examine whether it improves their self-image and increases their self-satisfaction and social relationships. The study gives more emphasis to medical transition as it was an emerging aspect and needs to be studied in-depth to avoid the chances of re-transition. Understanding the factors related to the inaccessibility of medical services among the minority community in developing countries like India will help to generate more data for the upliftment of the community.
2. Materials and Methods

To address the objective of the research, a descriptive study is used. Both quantitative and qualitative research methods have been used to gather data from transgender individuals who had gender transition through physical modification or social transition (name change, change in dressing pattern). The quantitative method is used to generate data regarding the demographic profile of respondents' type of transition opted for; further, the qualitative method is used to understand their views and experience using in-depth questions regarding gender transition.

Due to the unavailability of official data on the respondents' population size, a sample size of one hundred fifty (150) has been selected through snowball sampling. For data collection, two districts, namely Sambalpur and Khordha, were selected with the help of NGOs and heads of the transgender communities concerned in the selected districts. The data is collected using both structured and unstructured interview schedules with close-ended and open-ended questions. A structured interview schedule was used to gather demographic data and methods; they opted for gender transitions; unstructured interview questions were added during the interview to understand the in-depth problem, including more open-ended questions.

All the respondents selected under study are self-identified as transgender male to female. In the inclusion category, the transgender individuals who disclosed their identity to their family and society (full-time transgender) are selected while excluding the transgender individuals who had not come out and maintained dual identities. Information regarding their type of gender transition and the methods they used were asked, and questions on their views regarding their self-satisfaction and its effect on their health and social relations have also been emphasized.

2.1. Study Strengths and Limitations

The study allows for an in-depth understanding of the implications of the gender transition process with special reference to the medical transition from the experience of the transgender. However, due to the small sample size and non-random sampling, the study may not represent the entire transgender community in India. Despite the limitations, the study provides a valuable outcome to study the issues related to gender transition. The research paves the way for future researchers to formulate research gaps and extend the findings of the study.

3. Analysis and Findings

3.1. Profile of the Respondents

The respondents under study include the age group of 18-45, while more than half of the respondents represent 18-25 age group of individuals. The number of respondents representing the Hindu religion is disproportionately higher in comparison to Islam and Christianity. Restrictions imposed by religion and society suppress transgender to disclosing their identity. The majority of the respondents drop out of school before completing intermediate. The sample also displayed a representation of other backward classes, which is higher in the study, followed by schedule caste, general and schedule tribe categories. The occupation of transgender are mostly found to be prostitutes and beggars.

3.2. Patterns of Gender Transition among the Transgender Female

There are two types of gender transition, namely, medical transition and social transition. Social transition is known to be a common method among the transgender female. Transgender have gone through the social transition of changing their name/pronunciation and physical appearance, such as wearing female clothes, putting makeup on their face, growing long hair, etc. It could be considered as the first step towards medical transition. The persons gone through social transition are very much alike to have medical transition if the situation is favorable to them. Changing gender with the help of medical intervention is considered a medical transition, which includes hormone therapy, breast implant, sex reassignment surgery, feminization facial surgeries, hair growth reduction, lazer treatment for facial hair, etc. Medical transition is a complex process and riskier as it includes microsurgeries.

All the respondents (n=150) under study are socially transitioned, changing their name/pronunciation of their clothing. Among them more than half of the (n=88) respondents opted for medical transition. Lazer treatment for facial hair reduction is common among transgender females, followed by sex reassignment surgery, hormone treatment and breast augmentation.

3.3. Effect of Medical Transition on Transgender Female

The effect of medical transition on health and well-being is contradictory in nature. The present research proved that the medical transition helps to treat gender dysphoria and body dissatisfaction among transgender females. However, they are still not accepted in society due to the ingrained social stigma. The data revealed in Table 1 suggest that a small number of transgender people have reported a negative impact of sex reassignment surgery, such as deterioration of health, body aches, especially in joints and lower body pain or backache, lack of strength to do daily work, sleepiness, etc. Inspite of this, some transgender people reported pelvic pain after the first month of surgery but recovered after some time without any medication. In the case of breast augmentation surgery, a small number of respondents said that they felt breast pain in cold weather because of silicone implants. However, the pain reduces after oil massage or the use of a hot pad. The persons who have gone through hormonal treatment do not remark on any side effects of hormonal therapy except in one case in which respondents said they had severe pimples on their faces after hormone intake.
Despite this, the majority of transgender, mentioning the positive aspect, said that the process makes them feminine and reduces their bodily dissatisfaction, helps them to love their body and increases their self-esteem. One respondent said, "Before surgery, I used to feel very uncomfortable at the workplace, especially when interacting with non-transgender and using women's washroom, but after surgery, I am very confident about myself". It also helped them to increase their social involvement as they became confident about their representation. The majority of the respondents, mainly sex workers, strongly agree that it helped them to satisfy their customers and to generate more income. However, few transgender people agreed that they regret after medical surgeries, which is mainly due to the family pressure and the negative impact of the medical procedures. One of the respondents said: "Sometimes I regret after surgery because I disfigured something given by god as a gift". The rate of social acceptance of transgender is still very low as people still do not identify them as girls; as one respondent noted, "People will never forget that I am a hijra".

### 3.4. Effect of Social Transition on Transgender Female

Social transition helps the transgender to explore own one's own identity. The present research proved that socially transitioned transgender females have higher self-confidence and positive feelings after social transition. It also helps them to improve self-satisfaction. The very idea of concealing one's own gender has a greater influence on the mental health of transgender individuals. Another respondent said, "Before joining community, I used to wear boy's clothes to hide my identity. I felt like I was in a cage.

However, within the transgender community, they freely live as a female without concealing their identity. One respondent stated: "After joining the community, I feel more like myself as now I can wear clothes according to my choices". Another respondent says, "After joining the community, I can dress up as a girl. The community members support me mentally. I feel like I am a bird freely roaming around".

Although social transition helps them to improve self-satisfaction regarding their appearance and presentation, victimization within society becomes more evident. Respondents say that after changing their dressing patterns, the people around them treat them differently. The majority of them said that people avoid them, treat them as untouchable, and force them to have sexual relationships. Respondents also say that they feel discomfort in the hospital's public sphere, and most of the time, police do not respond to their problem.

The majority of respondents said that after coming out as transgender, their family disowned them and forced them to leave home. After gender transition, they are only accepted by their community. Due to transphobia, victimization in society is still the same even after gender transition, as Kuper et al., 2020 mentioned. Although they have short-term mental satisfaction, victimization could have a long-term impact on them (2021).

<table>
<thead>
<tr>
<th>Opinion of Respondents</th>
<th>Strongly Agree</th>
<th>Agree</th>
<th>Disagree</th>
<th>Strongly Disagree</th>
<th>Undecided</th>
</tr>
</thead>
<tbody>
<tr>
<td>Higher self-esteem</td>
<td>54.5</td>
<td>36.3</td>
<td>4.5</td>
<td>2.2</td>
<td>2.2</td>
</tr>
<tr>
<td>Feel positive after surgery</td>
<td>54.5</td>
<td>38.6</td>
<td>0</td>
<td>2.2</td>
<td>4.5</td>
</tr>
<tr>
<td>Feel very bad after the surgery</td>
<td>0</td>
<td>9.0</td>
<td>43.1</td>
<td>40.9</td>
<td>6.8</td>
</tr>
<tr>
<td>Feel same</td>
<td>3.4</td>
<td>13.6</td>
<td>53.4</td>
<td>22.7</td>
<td>6.8</td>
</tr>
<tr>
<td>Able to love yourself</td>
<td>27.2</td>
<td>61.3</td>
<td>2.2</td>
<td>2.2</td>
<td>6.8</td>
</tr>
<tr>
<td>People identify you as a female after transition</td>
<td>0</td>
<td>1.1</td>
<td>47.7</td>
<td>51.1</td>
<td>0</td>
</tr>
<tr>
<td>Helps to generate more income</td>
<td>65.9</td>
<td>31.8</td>
<td>2.2</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Improvement in social relation</td>
<td>18.18</td>
<td>59.0</td>
<td>11.3</td>
<td>2.2</td>
<td>9.0</td>
</tr>
<tr>
<td>High degree of social involvement</td>
<td>15.9</td>
<td>47.7</td>
<td>22.7</td>
<td>2.2</td>
<td>11.3</td>
</tr>
<tr>
<td>Improvement in relationship with family</td>
<td>15.9</td>
<td>13.6</td>
<td>59.0</td>
<td>11.3</td>
<td>0</td>
</tr>
<tr>
<td>Helps to improve body dissatisfaction</td>
<td>85.2</td>
<td>13.6</td>
<td>1.1</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Having health-related impact after Sex Reassignment Surgery</td>
<td>6.8</td>
<td>13.6</td>
<td>18.1</td>
<td>10.2</td>
<td>1.1</td>
</tr>
<tr>
<td>Having health-related impact after breast augmentation</td>
<td>0</td>
<td>13.6</td>
<td>27.2</td>
<td>59.0</td>
<td>0</td>
</tr>
<tr>
<td>Having health-related impacts after hormone intake</td>
<td>4.5</td>
<td>14.7</td>
<td>55.6</td>
<td>25</td>
<td>0</td>
</tr>
<tr>
<td>Regret after medical procedure</td>
<td>0</td>
<td>6.8</td>
<td>29.5</td>
<td>59.0</td>
<td>4.5</td>
</tr>
</tbody>
</table>

Source: Field survey
There are many facets of gender dysphoria, but at what age children feel uneasy/uncomfortable with the body they are born with and its implications on body and mind are still under study. While answering the question, some research concludes that between the ages of 5 and 7 years, transgender children are fully aware of their identity crisis (Graham, 2023; Zaliznyak, 2021). There are various reasons for which the gender transition process is delayed. In the present study, the respondents said that the expectations of their family as a boy overweight their experience of identity realization and forced them to suppress their identity. Inspite of this, there are other reasons, such as fear of victimization, not being accepted in the family and transphobia are the major reasons to hide their identity. Transgender youth realize their identity earlier than they disclose their identity to their parents (Pullen et al., 2022).

The research shows that early transition reduces suicidal ideation and increases quality of life (Almazan, 2021; Yildizhan et al., 2017).

The present study shows that religion also played a greater role in controlling gender transition. Respondents belonging to the Islam religion say that it would be difficult to have "Janaja" (funeral) if they modify their bodies through surgeries. Another respondent says that it is difficult for her to convince her family as she belongs Islam religion (Afiqah et al., 2022).

The transgender communities in India have a peculiar characteristic of being based on religion. Every transgender community consists of a head known as a guru and other members and their kinship system (Nanda, 1990). The respondents mentioned that from the beginning, they left their homes and resided in these transgender communities; the community helps them to become a members of their own society, which is not only about accepting their identity but also helping them with gender transition. When someone joins the community at a very young age, the guru and other senior members teach the transgender about their traditions. The role of transgender communities in gender transition is often ignored in many researches.

There are certain medical issues found to be associated with the medical transition, such as pelvic pain, pain during urination, breast tightening, severe pimples, body pain or backache, lack of strength to do daily work, sleepiness, etc. However, the respondents are still satisfied as it helped them to cure their mental distress, uneasiness, and dissatisfaction regarding their bodies. The outcome is also supported by research (Afiqah et al., 2022; Wierckx et al., 2011). Despite of negative consequences on a body, medical transition proved to be the highly demanded and desired process of transition among transgender females. The process not only successfully cures their discomfort within the body but also fulfill the wish of getting rid of the birth genital and other organs. The majority of the respondents are highly satisfied through medical transition in comparison to social transition. It not only helps to improve their self-satisfaction but also helps to generate high income among the transgender female sex worker.

The social transition could be considered significant in the process of gender transition. It helps to improve self-satisfaction and social relationships among the transgender. However, family support and peer group support are crucial to improving overall health and satisfaction and to a strong social network (Aldridge et al., 2021; Yildizhan et al., 2017). The relationship between gender transition and mental health is also remarkable as previous research approves that transition helps the transgender to reduce thoughts of suicide (Bailey, 2014; Hughto et al., 2020), but studies also suggest that these psychological difficulties could arise in a certain vulnerable period of life and gender transition is ineffective to improve the situation (Morandini et al., 2023).

Findings reveal a positive relationship between gender transition and self-satisfaction among transgender individuals. The significance of gender transition could be easily visible as it helps to improve social relationships, social involvement and higher self-esteem among the transgender. A similar outcome was also suggested by Papadopulo et al., 2017, Rosenberg et al., 2019, and Santos et al., 2023 in their study. They mentioned that gender transition improves femininity, quality of life, and emotional and sexual satisfaction among transgender individuals. As the present research suggests, the improvement in their family relation or acceptance by their family is still the same. The social stigma is negatively associated with the process of gender transition. Regarding the victimization of transgender people, culture and religion, family, and transphobia play a major role even after gender transition (Magalhaes et al., 2020; Silva et al., 2016; Hughto et al., 2020).

4. Conclusion

The medical and social transition seems to be effective in improving body satisfaction and increasing self-esteem among transgender females based on the outcome. There are certain negative implications of medical transition on the health of transgender females. However, it is still highly desired among the transgender. The social transition, although it helps to satisfy their fetish of cross-dressing, the victimization of the transgender becomes more evident as they come out as a transgender person in society.

The social stigma and transphobia around transgender people have become more stringent due to their choice of occupation. Regardless of the negative consequences, gender transition could be considered as healthy and acceptable to treat gender dysphoria but not sufficient to increase the acceptability of transgender within society. The study suggests to use of a longitudinal design to understand gender fluidity among the transgender population.
References

[1] Siti Nur Afiqah, Abdul Rashid, and Yufu Iguchi, “Transition Experiences of the Malay Muslim Trans Women in Northern Region of Malaysia: A Qualitative Study,” *Dialogues in Health*, vol. 1, 2022. [CrossRef] [Google Scholar] [Publisher Link]

[2] Tiffiny A. Ainsworth, and Jeffrey H. Spiegel, “Quality of Life of Individuals with and without Facial Feminization Surgery or Gender Reassignment Surgery,” *Quality of Life Research*, vol. 19, pp. 1019-1024, 2010. [CrossRef] [Google Scholar] [Publisher Link]


[4] Zoë Aldridge et al., “Long-Term Effect of Gender-Affirming Hormone Treatment on Depression and Anxiety Symptoms in Transgender People: A Prospective Cohort Study,” *Andrology*, vol. 9, no. 6, pp. 1808-1816, 2021. [CrossRef] [Google Scholar] [Publisher Link]

[5] Danyon Anderson et al., “Gender Dysphoria and its Non-Surgical and Surgical Treatments,” *Health Psychology Research*, vol. 10, no. 3, 2022. [CrossRef] [Publisher Link]


[8] Danielle T. Cipres, Jessica Y. Shim, and Frances W. Grimstad, “Postoperative Vaginal Bleeding Concerns after Gender-Affirming Hysterectomy in Transgender Adolescents and Young Adults on Testosterone,” *Journal of Pediatric and Adolescent Gynecology*, vol. 36, no. 1, pp. 33-38, 2023. [CrossRef] [Google Scholar] [Publisher Link]


[10] Cecilia Dhejne et al., “Long-Term Follow-Up of Transsexual Persons Undergoing Sex Reassignment Surgery: Cohort Study in Sweden,” *Plos One*, vol. 6, no. 2, 2011. [CrossRef] [Google Scholar] [Publisher Link]


[16] Laura E. Kuper et al., “Body Dissatisfaction and Mental Health Outcomes of Youth on Gender-Affirming Hormone Therapy,” *Pediatrics*, vol. 145, no. 4, 2020. [CrossRef] [Google Scholar] [Publisher Link]


[18] Lima Martins K et al., “312 - Urinary, Bowel and Sexual Function of Transgender Women after Sex Reassignment Surgery Vaginoplasty: Cross-Sectional study,” *Coninence*, vol. 7, 2023. [CrossRef] [Google Scholar] [Publisher Link]


[20] James S. Morandini et al., “Is Social Gender Transition Associated with Mental Health Status in Children and Adolescents with Gender Dysphoria?,” *Archives of Sexual Behavior*, vol. 52, no. 3, pp. 1045-1060, 2023. [CrossRef] [Google Scholar] [Publisher Link]


[23] Kristina R. Olson et al., “Gender Identity 5 Years after Social Transition,” *Pediatrics*, vol. 150, no. 2, 2022. [CrossRef] [Google Scholar] [Publisher Link]

[24] Kristina R. Olson et al., “Mental Health of Transgender Children who are Supported in their Identities,” *Pediatrics*, vol. 137, no. 3, 2016. [CrossRef] [Google Scholar] [Publisher Link]

[27] Shoshana Rosenberg, P.J. Matt Tilley, and Julia Morgan, “I Couldn’t Imagine My Life without It”: Australian Trans Women’s Experiences of Sexuality, Intimacy, and Gender-Affirming Hormone Therapy,” *Sexuality & Culture*, vol. 23, pp. 962-977, 2019. [CrossRef] [Google Scholar] [Publisher Link]
[29] Elisabeth DC Sievert et al., “Not Social Transition Status, but Peer Relations and Family Functioning Predict Psychological Functioning in a German Clinical Sample of Children with Gender Dysphoria,” *Clinical Child Psychology and Psychiatry*, vol. 26, no. 1, pp. 79-95, 2021. [CrossRef] [Google Scholar] [Publisher Link]
[30] Diana M. Tordoff et al., “Mental Health Outcomes in Transgender and Nonbinary Youths Receiving Gender-Affirming Care,” *JAMA Network Open Journal*, vol. 5, no. 2, pp. 1-13, 2022. [CrossRef] [Google Scholar] [Publisher Link]
[31] Jack L. Turban et al., “Correction: Access to Gender-Affirming Hormones during Adolescence and Mental Health Outcomes among Transgender Adults,” *Plos One*, vol. 18, no. 6, 2023. [CrossRef] [Google Scholar] [Publisher Link]
[32] Jack L. Turban et al., “Timing of Social Transition for Transgender and Gender Diverse Youth, K-12 Harassment, and Adult Mental Health Outcomes,” *Journal of Adolescent Health*, vol. 69, no. 6, pp. 991-998, 2021. [CrossRef] [Google Scholar] [Publisher Link]
[33] G. Weinforth et al., “Quality of Life Following Male-To-Female Sex Reassignment Surgery,” *Deutsches Arzteblatt International*, vol. 116, no. 15, pp. 253-260, 2019. [CrossRef] [Google Scholar] [Publisher Link]
[34] Jaclyn M. White Hughto et al., “Barriers to Gender Transition-Related Healthcare: Identifying Underserved Transgender Adults in Massachusetts,” *Transgender Health*, vol. 2, no. 1, pp. 107-118, 2017. [CrossRef] [Google Scholar] [Publisher Link]
[36] Berna Özata Yildizhan et al., “Effects of Gender Reassignment on Quality of Life and Mental Health in People with Gender Dysphoria,” *Turkish Journal of Psychiatry*, vol. 29, no. 1, pp. 11-21, 2018. [CrossRef] [Google Scholar] [Publisher Link]
[37] Michael Zaliznyak et al., “How Early in Life Do Transgender Adults Begin to Experience Gender Dysphoria? Why this Matters for Patients, Providers, and for our Healthcare System,” *Sexual Medicine*, vol. 9, no. 6, pp. 1-8, 2021. [CrossRef] [Google Scholar] [Publisher Link]