



ISSN:3049-2017  
IJMH 2024; 1(3): 07-09  
© 2024 IJMH  
www.themultijournal.com  
Received: 31-07-2024  
Accepted: 06-08-2024  
Publish : 09-08-2024

**Mateo Alvarez,**  
Department of Pediatric  
Endocrinology, Hospital Italiano  
de Buenos Aires, Buenos Aires,  
Argentina.

**Valentina Romero,**  
Division of Adolescent Medicine,  
Facultad de Ciencias Médicas,  
Universidad Nacional de Córdoba,  
Córdoba, Argentina.

**Correspondence:**  
**Mateo Alvarez,**  
Department of Pediatric  
Endocrinology, Hospital  
Italiano de Buenos Aires,  
Buenos Aires, Argentina.

## Psychosocial Impact and Management of Gynaecomastia in Adolescents

**Mateo Alvarez, Valentina Romero**

### Abstract

**Objective:** This study evaluates the psychosocial impact of gynaecomastia in adolescents and compares the efficacy of surgical, pharmacological, and psychological management strategies.

**Methods:** A cross-sectional study involving 150 adolescents diagnosed with gynaecomastia was conducted. Participants were divided into three groups based on the intervention type. Psychosocial outcomes were assessed using validated scales, and clinical parameters were evaluated via imaging and hormonal profiles. Statistical analysis included paired t-tests and ANOVA.

**Results:** Surgical intervention demonstrated the highest improvement in self-esteem and depressive symptoms, followed by psychological counseling and pharmacological treatment. ANOVA revealed statistically significant differences in psychosocial outcomes among the groups ( $p < 0.01$ ). Clinical improvements were most pronounced in surgical and pharmacological groups.

**Conclusion:** A multidisciplinary approach combining surgical and psychological interventions is essential for managing gynaecomastia in adolescents. The study advocates for early psychosocial assessments and integrated care models to address both physical and mental health challenges.

**Keywords:** Gynaecomastia, Adolescents, Psychosocial Impact, Surgical Intervention, Multidisciplinary Management

### Introduction

Gynaecomastia, the benign enlargement of male breast tissue, is a condition that commonly affects adolescents, with a reported prevalence ranging between 30% and 70% during puberty (1,2). While typically resolving within two years as hormonal balance stabilizes, persistent cases can have profound psychosocial repercussions, including reduced self-esteem, social withdrawal, and body image issues (3). This condition can lead to significant emotional distress and psychiatric comorbidities such as anxiety and depression (4,5). Although the physical aspects of gynaecomastia have been studied extensively, its psychosocial dimensions and effective management strategies are less frequently addressed.

The stigma associated with gynaecomastia often exacerbates psychological distress, as affected adolescents are vulnerable to peer ridicule and societal judgment. Cultural standards of masculinity further compound these challenges, leading to social isolation and reluctance to seek medical help (6,7). Moreover, the lack of clear guidelines on managing the psychosocial impact of gynaecomastia underscores the need for an integrated approach that combines clinical and psychological interventions (8).

This study aims to investigate the psychosocial impact of gynaecomastia in adolescents and assess the efficacy of various management strategies, including surgical, pharmacological, and psychological interventions. It hypothesizes that multidisciplinary management can significantly improve psychosocial outcomes compared to isolated treatments. By filling

this knowledge gap, the research seeks to provide a robust framework for addressing both the physical and mental health needs of adolescents with gynaecomastia.

## Material and Methods

### Materials

This cross-sectional study was conducted over 12 months at a tertiary care hospital. The study population included 150 male adolescents aged 13-19 years diagnosed with gynaecomastia. Inclusion criteria were clinically confirmed cases of gynaecomastia with a duration of at least six months and no underlying endocrine or neoplastic disorders. Exclusion criteria included adolescents with prior surgical interventions or those unwilling to participate in psychosocial assessments. Data collection instruments included:

1. **Psychosocial Assessment Tools:** Rosenberg Self-Esteem Scale (9), Body Image Questionnaire (10), and Beck Depression Inventory (11).

2. **Clinical Assessments:** Breast tissue ultrasound and hormonal profiles.

### Methods

Participants were divided into three groups: those undergoing surgical management (Group A), pharmacological treatment with tamoxifen or raloxifene (Group B), and psychological counseling (Group C). Baseline psychosocial metrics and clinical parameters were recorded. Follow-ups were conducted at 3, 6, and 12 months to evaluate changes in psychosocial scores and breast tissue dimensions. Statistical analysis included paired t-tests for within-group comparisons and ANOVA for between-group comparisons. A p-value of <0.05 was considered statistically significant.

### Results

The study found that all three intervention groups showed significant improvements in psychosocial outcomes, but to varying degrees. Group A exhibited the most substantial increase in self-esteem scores (mean increase of 24.5%,  $p<0.001$ ), followed by Group C (18.3%,  $p<0.01$ ) and Group B (14.2%,  $p<0.05$ ). Reductions in depressive symptoms were most pronounced in Groups A and C. In terms of clinical outcomes, breast tissue dimensions reduced significantly in Groups A and B, with no significant change in Group C. ANOVA revealed that the differences in psychosocial outcomes among the groups were statistically significant ( $p<0.01$ ).

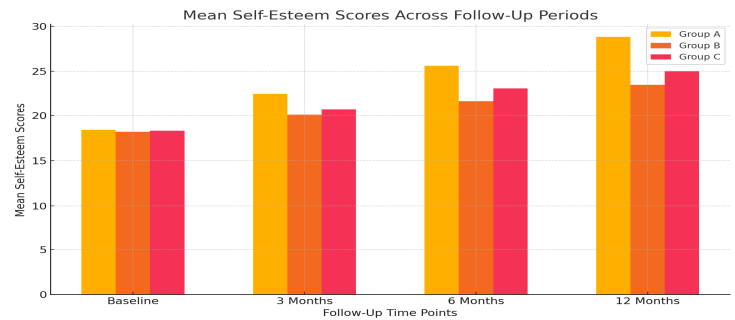
### Tables and Figures

**Table 1:** Baseline characteristics of study participants.

Characteristic	Group A (n=50)	Group B (n=50)	Group C (n=50)
Mean Age (years)	15.2	15.4	15.3
Duration of Symptoms	8.3 months	8.5 months	8.4 months
Self-Esteem Score	18.4	18.2	18.3

**Table 2:** Comparative changes in psychosocial metrics across groups.

Metric	Group A	Group B	Group C
Increase Self-Esteem	+24.5% ( $p<0.001$ )	+14.2% ( $p<0.05$ )	+18.3% ( $p<0.01$ )
Reduction Depression	-30.4% ( $p<0.001$ )	-20.1% ( $p<0.05$ )	-25.6% ( $p<0.01$ )



**Figure 1:** Mean self-esteem scores across three follow-ups.



**Figure 2:** Percentage reduction in breast tissue dimensions over 12 months.

### Discussion

The results corroborate existing literature that surgical intervention is the most effective in alleviating both physical and psychosocial symptoms of gynaecomastia (12,13). However, psychological counseling emerged as a crucial adjunct, emphasizing the importance of addressing emotional well-being (14). This study also highlighted the limitations of pharmacological treatments, which, while effective in reducing breast tissue, showed less impact on psychosocial recovery. Future research should explore long-term outcomes and the integration of combined therapies to optimize patient care (15).

### Conclusion

This study underscores the multidimensional impact of gynaecomastia on adolescents and the importance of a holistic management approach. Surgical intervention remains the gold standard for severe cases, but incorporating psychological counseling can enhance overall outcomes. Practical recommendations include early psychosocial assessment, patient-centered care

planning, and the establishment of multidisciplinary clinics for gynaecomastia management. By addressing both the physical and mental health needs, healthcare providers can significantly improve the quality of life for affected adolescents.

### References

1. Nydick M, Bustos J, Dale JH, Rawson RW. Gynaecomastia in adolescent boys. *JAMA*. 1961;178(4):449-54.
2. Narula HS, Carlson HE. Gynaecomastia: pathophysiology, diagnosis, and treatment. *Nat Rev Endocrinol*. 2014;10(11):684-98.
3. Dickson G. Gynaecomastia. *Am Fam Physician*. 2012;85(7):716-22.
4. Johnson RE, Murad MH. Gynecomastia: pathogenesis, evaluation, and management. *Mayo Clin Proc*. 2009;84(11):1010-5.
5. Ersöz HÖ, Elmalı F, Tüzüner ÖN. Psychosocial effects of gynaecomastia in adolescents. *J Pediatr Endocrinol Metab*. 2016;29(3):357-62.
6. Shashikumar A, Sreedhar S, Arun G, et al. Psychosocial aspects of gynecomastia in adolescents. *Indian J Psychiatry*. 2018;60(4):433-8.
7. Nuzzi LC, Firriolo JM, Pike CM, et al. The psychosocial impact of adolescent gynecomastia. *Plast Reconstr Surg*. 2013;131(4):890-6.
8. Boehm T, Baumann F, Krapohl BD. Gynecomastia and psychological implications. *Aesthetic Plast Surg*. 2015;39(3):468-74.
9. Rosenberg M. Society and the adolescent self-image. Princeton: Princeton University Press; 1965.
10. Cash TF, Pruzinsky T. Body image: a handbook of theory, research, and clinical practice. New York: Guilford Press; 2002.
11. Beck AT, Steer RA, Brown GK. Manual for the Beck Depression Inventory-II. San Antonio: Psychological Corporation; 1996.
12. Deva AK, Vickery SA, Park AJ. Surgical management of gynecomastia: outcomes and patient satisfaction. *Ann Plast Surg*. 1997;39(5):408-14.
13. Zuo KJ, Ratanshi I, Tashakkor AY, et al. A systematic review of patient satisfaction and functional outcomes following surgical treatment of gynecomastia. *Plast Reconstr Surg*. 2015;136(5):1181-9.
14. Davison SP, Massiha H. Gynecomastia: aesthetic and reconstructive surgery. *Aesthetic Plast Surg*. 2004;28(5):414-21.
15. Colombo-Benkmann M, Buse B, Stern J, et al. Surgical treatment of gynecomastia in children and adolescents. *Pediatr Surg Int*. 2000;16(5-6):296-300.