

PSYCHOLOGICAL GENDER FEATURES AND SOCIAL ABILITIES IN ADOLESCENT GIRLS – INFLUENCE OF OBESITY AND HYPERANDROGENISM



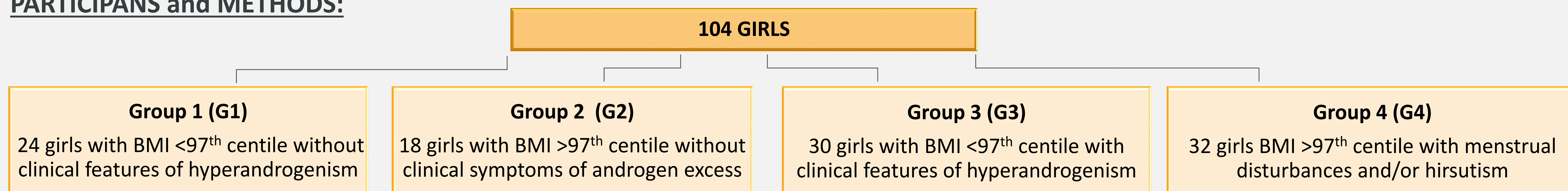
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BACKGROUND: Both, obesity and hyperandrogenism are the conditions that can influence many different health domains, also may affect the mental and social wellbeing components of subject's life.

PURPOSE: Study objective was to evaluate whether body weight status and clinical hyperandrogenism may influence social competencies and psychological gender features in adolescent girls.

PARTICIPANS and METHODS:



- Clinical evaluation:** menstrual regularity, hirsutism, BMI, BMI z-score, transabdominal pelvic US
- Hormonal profile (3-7 day of cycle):** luteinizing hormone (LH), androstenedione (A), testosterone (T), 17OHP and estradiol (E2)
- The social competencies questionnaire (SCQ) developed by Matczak-** assessment of the social competencies at the three aspects:
 - Intimacy (I)** - the ability to develop close interpersonal relationship, to share private information and feelings with another person,
 - Social Exposure (SE)** - connected to one's behavior in formal situations and being an object of assessment of many people, and
 - Assertiveness (AS)** - dealing with competencies for reaching own aims by influencing on other persons
- The gender inventory (PGI) developed by Kuczyńska-** assessment of the sex-typical behaviours:
 - sex-typed** - individuals who process and integrate information that is in line with their gender – **feminine woman/masculine man;**
 - cross-sex-typed** - individuals process and integrate information that is in line with the opposite gender - **feminine man/masculine woman;**
 - androgynous** - having many characteristics of both, male and female type;
 - sexually undifferentiated** - with low scores in both, male and female, scales

RESULTS:

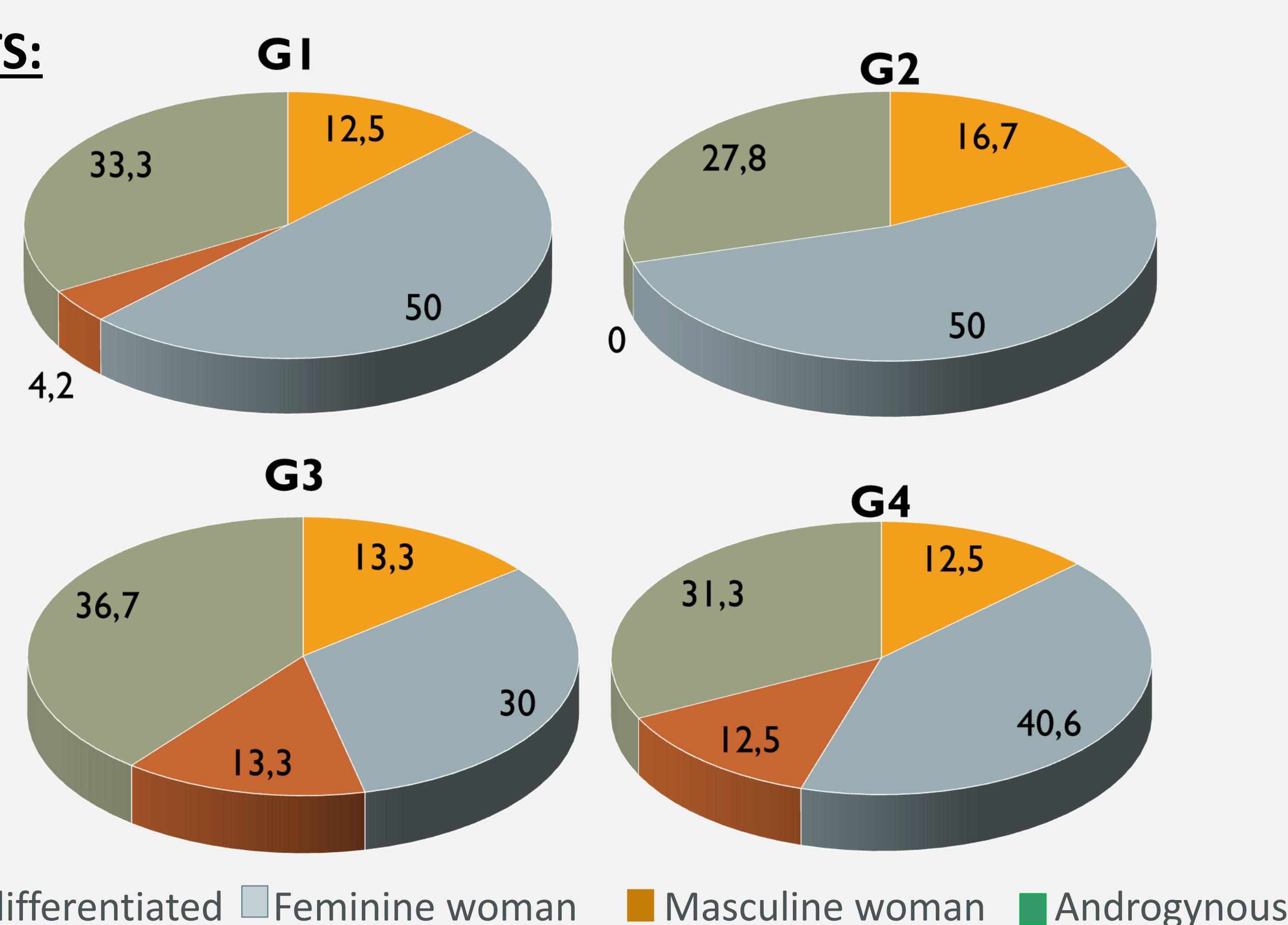


Figure 1. Distribution of types of psychological gender identities in study and control groups.

Table 1. Clinical and hormonal characteristics of adolescent girls with polycystic ovary syndrome (PCOS) and control group of healthy girls

	G1 (n=24)	G2 (n=18)	G3 (n=30)	G4 (n=32)
Chronological age [years]	16.8 (15.8–17.3)	16.5 (14.3-17.0)	17.1 (16.2-17.5)	16.7 (15.6-17.1)
Gynaecological age [months]	45.0 (38.5-56.5)	58.5 (29.5-73.5)	50.0 (44.0-60.0)	47.0 (31.0-64.0)
Cycle duration [days]	28.0 (26.0-37.5)	28.5 (28.0-33.0)	60.0 (30.5-78.0) ^{1,2}	45.0 (30.0-180.0) ^{3,4}
BMI z-score	0.1±0.9	2.2±0.5 ⁵	0.6±0.8 ⁶	2.3±0.6 ^{7,8}
Ferriman-Gallwey score ≥8 [No(%)]	0 (0%)	0 (0%)	17 (57%)	24 (75%)
Menstrual disturbances [No(%)]	2.0 (8.3%)	0 (0%)	20 (66.7%)	21 (65.6%)
Testosterone [ng/dl]	50.5±23.8	48.1±26.6	59.6±22.5	63.6±30.1 ⁹
Social competencies inventory [scores]	173.6±30.2	180.1±31.2	184.3±22.5	186.3±19.1
Intimacy [scores]	44.1±7.6	45.8±5.9	46.7±7.0	46.3±5.2
Social Exposure [scores]	51.6±11.5	53.0±12.4	54.9±9.2	55.5±8.5
Assertiveness [scores]	47.0±9.7	50.2±9.0	49.2±8.7	50.6±6.5
Psychological gender inventory				
Feminine gender scheme [scores]	56.8±7.4	55.4±8.1	56.9±7.4	56.0±7.2
Masculine gender scheme [scores]	47.4±9.4	46.2±9.5	50.1±8.2	47.6±6.0

1. G1 vs. G3: p=0.005; 2. G2 vs. G3: p=0.02; 3. G1 vs. G4: p=0.002; 4. G2 vs. G4: p=0.009; 5. G1 vs. G2: p<0.001; 6. G2 vs. G3: p<0.001; 7. G1 vs. G4: p<0.001; 8. G2 vs. G4: p<0.001; 9. G1 vs. G4: p=0.04;

KEY CORRELATIONS

- In G4 BMI z-score were positively correlated with SCQ (r=0.4, p=0.03).
- In G1 BMI z-score were negatively correlated with SCQ (r=-0.5, p=0.03).
- In G1 hirsutism correlated negatively with SCQ (r=-0.5, p=0.02), I (r=-0.5, p=0.02) and AS (r=-0.5, p=0.02); in other groups this relationship was insignificant.
- In G4 higher testosterone level was associated with lower SCQ (r=-0.5, p=0.008) and AS (r=-0.5, p=0.003).
- In G2 testosterone concentration correlated positively with SCQ (r=0.6, p=0.01), SE (r=0.5, p=0.02) and AS (r=0.6, p=0.02).

CONCLUSION: In adolescent girls body weight status and clinical features of androgen excess can be associated with some aspects of social competences and psychological gender features, facilitate or disturb social and psychological subject's functioning.

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AUTHORS HAVE NOTHING TO DISCLOSE

