

Eating Disorders in Polycystic Ovary Syndrome: A Scoping Review

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BACKGROUND

Polycystic ovary syndrome (PCOS) is the leading endocrine disorder affecting approximately 15% of reproductive age women across the lifespan.

PCOS is characterized by polycystic ovary morphology, hyperandrogenism, and menstrual dysfunction and is diagnosed by varying criteria.

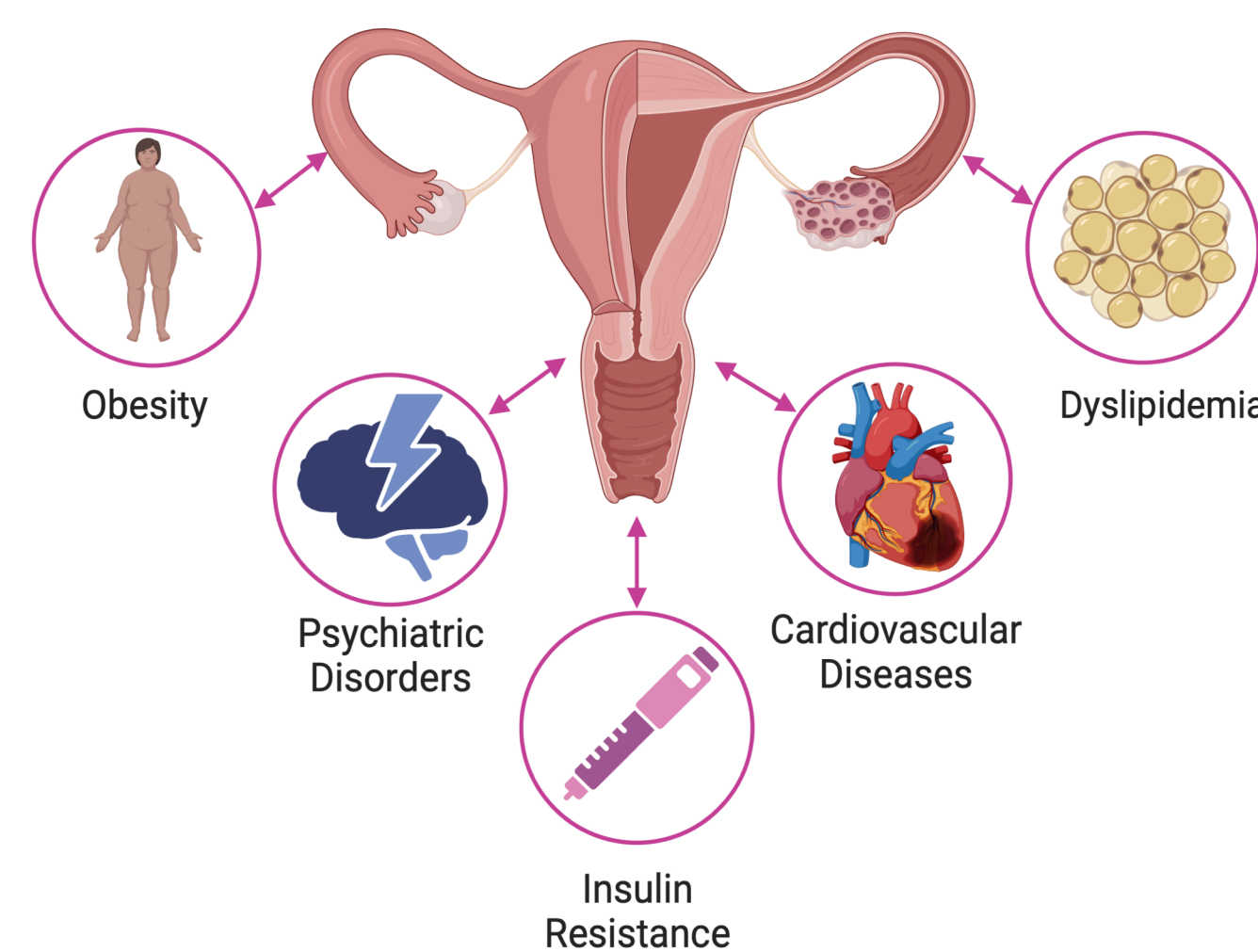


Figure 1. Comorbidities associated with PCOS

Current literature has observed an increased risk of developing eating disorders and disordered eating behaviors in PCOS.

Eating disorders (EDs) are diagnosed according to the Diagnostic and Statistical Manual of Mental Disorders Fifth Edition (DSM-5):

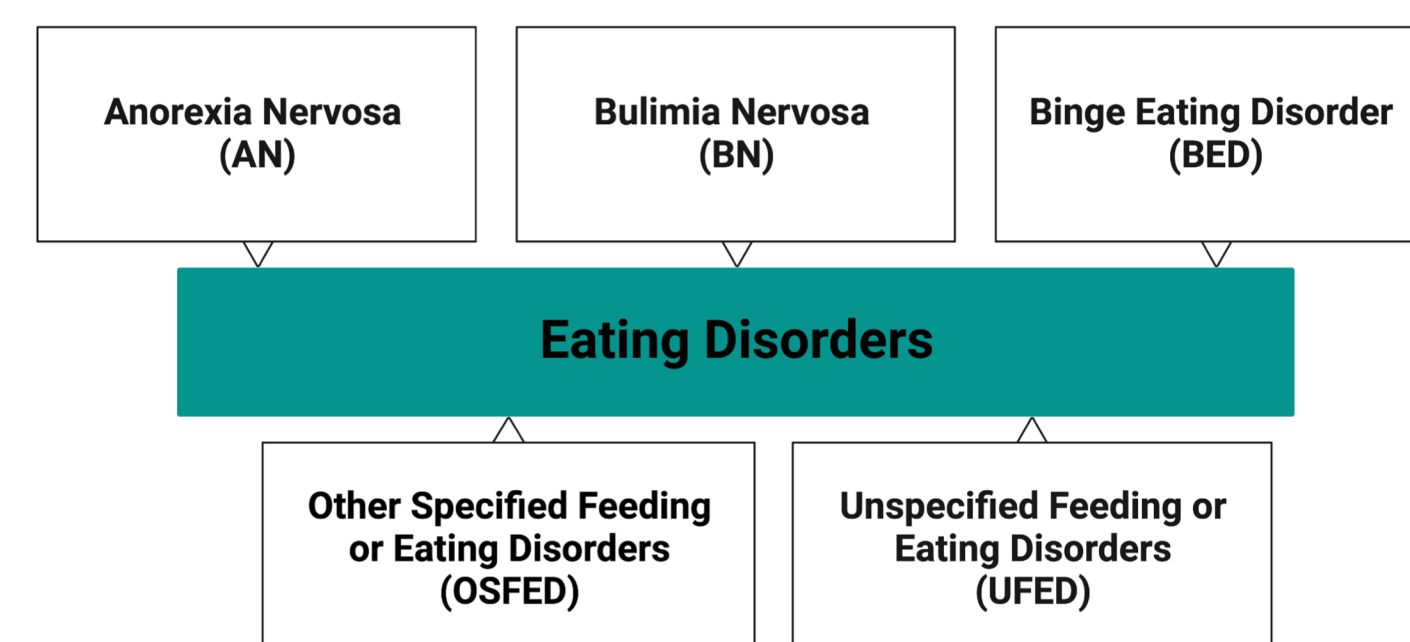


Figure 2. Types of eating disorders

Disordered eating (DE) behaviors are characterized by similar characteristics in lower frequency and severity that do not meet DSM-5 criteria.

RATIONALE & AIM

There is no literature that comprehensively examines the extent and range of research available on the prevalence and types of EDs in PCOS.

The aim of this scoping review is to:

1. Assess the scope of knowledge on the prevalence and types of EDs in PCOS.
2. Identify existing gaps in knowledge.
3. Explore the pathophysiological mechanisms of EDs in PCOS to improve assessment and clinical outcomes.



METHODS

The Preferred Reporting Items for Systematic Reviews and Meta-Analysis extension for Scoping Reviews (PRISMA-ScR) was used to guide the protocol of this study.

Study Eligibility & Selection

A comprehensive search was conducted on PubMed, Scopus, and Web of Science for literature available up to March 2023. Articles were reviewed by at least three reviewers.

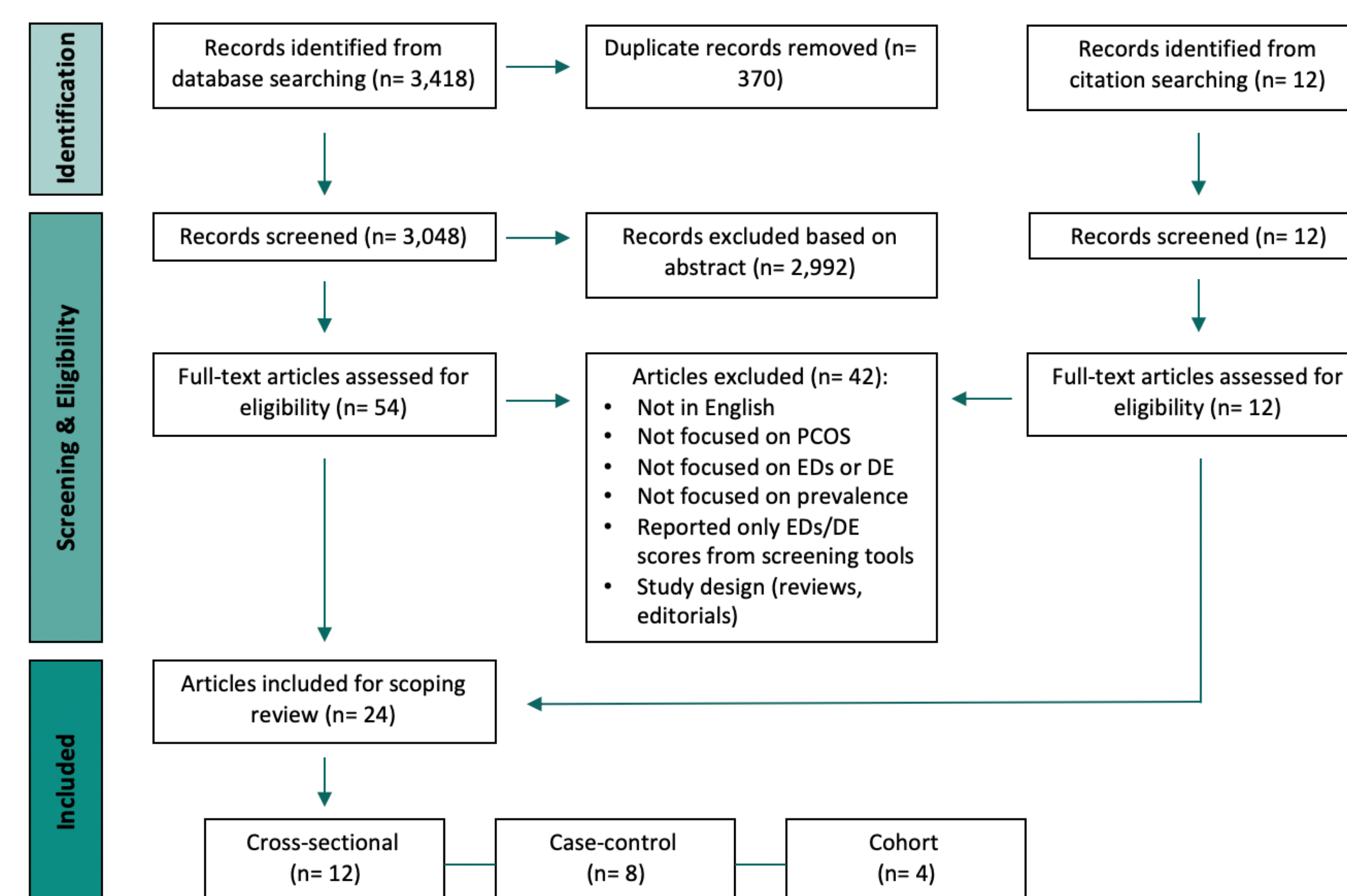


Figure 3. PRISMA-ScR flowchart outlining article selection and results from search strategy

Data Extraction & Synthesis

A data extraction table was developed for eligible articles with information about population characteristics, study design, results, strengths and limitations, and tools used to assess EDs and DE. The data was analyzed to identify types and prevalence of EDs in PCOS.

RESULTS

Study Characteristics

A total of 24 articles were included in this scoping review, but only 2 of these studies were conducted on adolescents.

Table 1. Articles on the prevalence of eating disorders in PCOS.

Eating Disorders (EDs)	Number of Articles	Prevalence
Anorexia Nervosa (AN)	8	0.0%-3.5%
Binge Eating Disorder (BED)	10	1.4%-93.1%
Subclinical Binge Eating (BE)	2	20.0%-37.7%
Bulimia Nervosa (BN)	10	0.0%-12.6%
Subclinical Bulimia Nervosa (BN)	3	8.0%-76.0%
Other Eating Disorder (ED)	1	6.4%
Other Specified Eating or Feeding Disorder (OSFED)	2	22.5%-27.0%
Atypical Anorexia Nervosa (AN)	1	0.0%
Low Frequency Bulimia Nervosa (BN)	1	9.4%
Low Frequency Binge Eating Disorder (BED)	1	16.0%
Purging Disorder	1	1.2%
Night Eating Syndrome (NES)	1	12.9%
Unspecified Feeding or Eating Disorders (UFED)	1	1.2%
Any Eating Disorder (ED)	12	0.4%-62.0%
Disordered Eating (DE)	3	21.0%-60.0%

RESULTS

In PCOS, Binge Eating Disorder (BED) was the most prevalent while Anorexia Nervosa (AN) was the least prevalent.

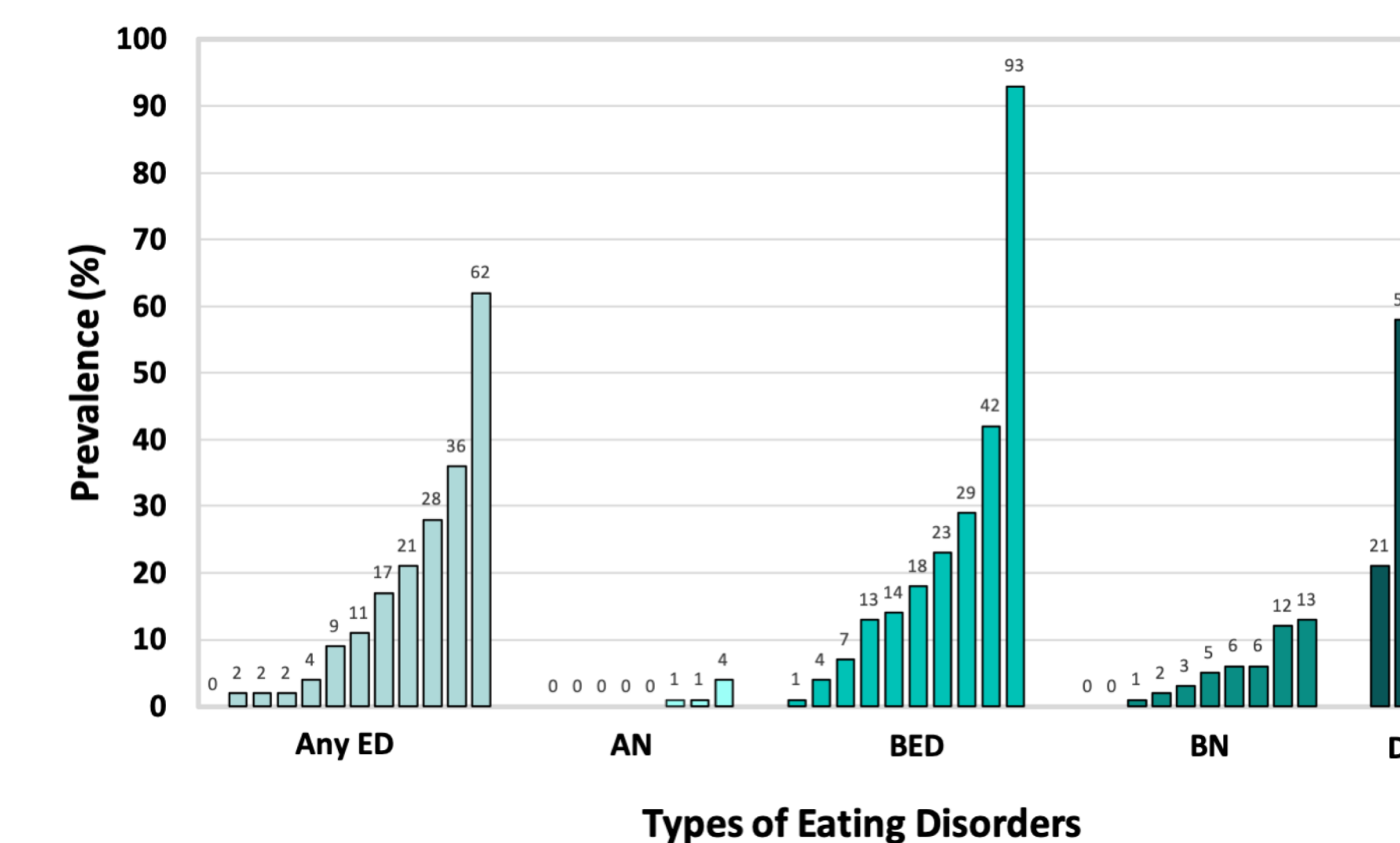


Figure 4. Prevalence of eating disorders and disordered eating in PCOS.

DISCUSSION

A protective effect is observed in women with AN in PCOS due lower levels of androgens compared to high levels in BED and BN.

Current screening and diagnostic tools used in literature to assess EDs and DE behaviors are not standardized which may affect the quality of evidence available.

We propose a vicious cycle that promotes the development of EDs in PCOS due to shared symptomatology and comorbidities between the two conditions.

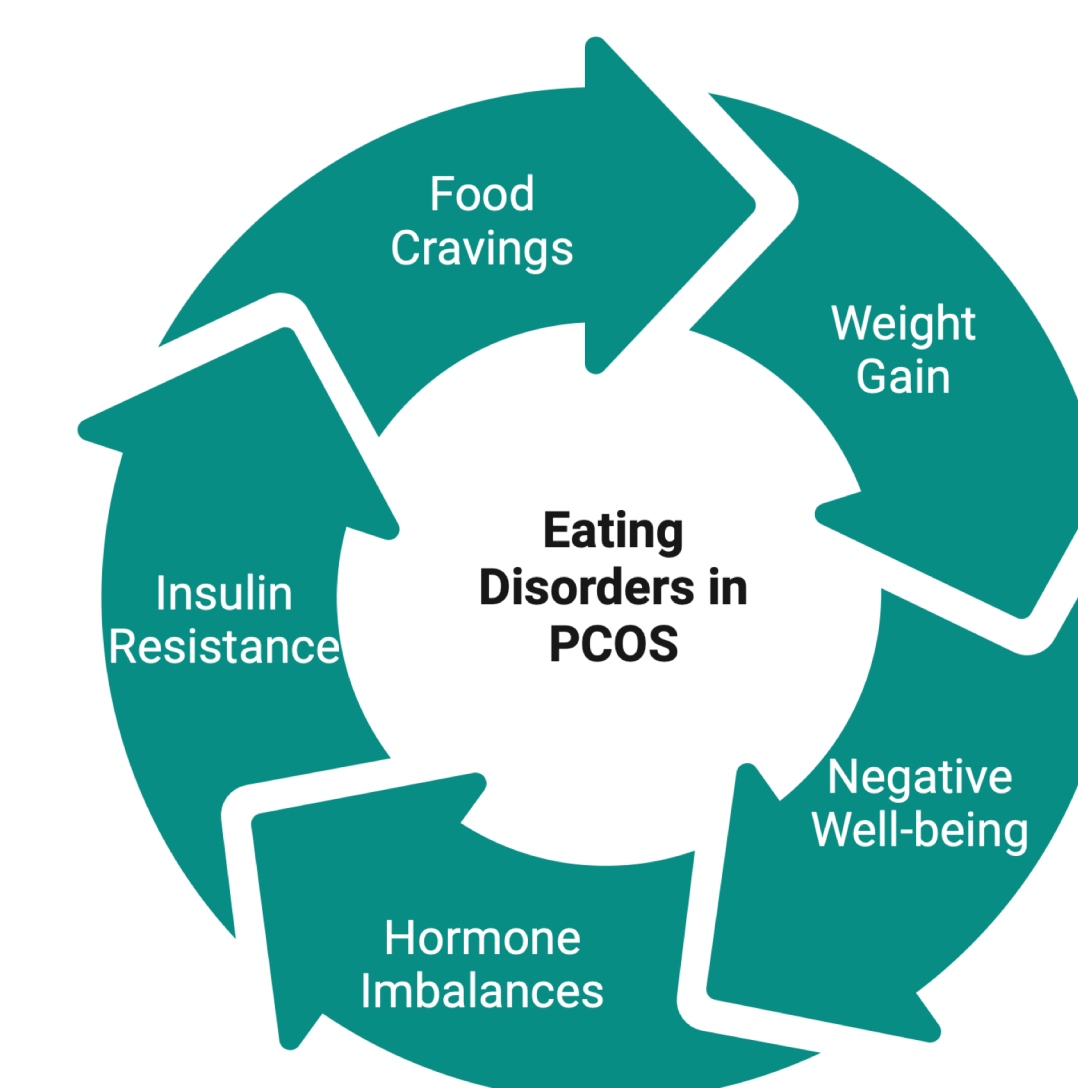


Figure 5. Vicious cycle of eating disorders in PCOS

RECOMMENDATIONS

The onset of PCOS begins as early as childhood, therefore longitudinal studies need to be conducted to observe how the manifestation of EDs in PCOS can change over the lifespan.

A universal standardized approach is needed for the assessment of EDs and PCOS in order to establish definitive diagnoses.

More research is required on a global scale for EDs in PCOS to provide enhanced treatment options and to improve health outcomes.

CONCLUSIONS

Future research can enable the development of clinical guidelines for the management and treatment of EDs in PCOS, reducing financial burdens on the healthcare system and improving health related quality of life for these individuals.