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### PUBERTY AND PSYCHIATRIC DISORDERS

# Menarche, puberty and psychiatric disorders\*

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#### Abstract

*Objective*: Puberty and adolescence are important periods about mental health, particularly for women. Relationship between age of menarche, psychiatric complaints during adolescence and family stories of psychiatric disorders are investigated.

*Materials and methods*: The study is conducted with 61 patients with schizophrenia, 35 patients with bipolar affective disorder, 40 patients with depressive disorder and 60 healthy control subjects. All subjects were evaluated with SCID-I and questionnaire fit for the aim of the study was fulfilled.

*Results*: Bipolar affective disorder had a stronger relationship with menarche, psychiatric problems during adolescence were related with early onset of illness in schizophrenia and bipolar groups. Family story of psychiatric illness was related with psychological problems during puberty in schizophrenia group.

*Conclusion*: This study underlies the puberty and adolescence period for psychiatric illness. An integrative clinical approach is suggested while examining the psychiatric illness at the basis of engaged roles of hormonal effects of menarche, social effect of puberty psychiatric complaints and genetical and psychosocial burden of family story of illness.

### Introduction

Puberty and adolescence are shown to be sensitive periods about psychological and behavioral problems. Such periods of intense hormonal fluctuations have been associated with heightened prevalence and exacerbation of underlying psychiatric illness [1]. It has been speculated that sex steroids, such as estrogens, progestogens, testosterone and dehydroepiandrosterone, exert a significant modulation of brain functioning, possibly through interactions with various neurotransmitter systems.

Gender differences is a natural difference about hormonal composition of the body hence distribution of psychiatric disorders. Women are more risky about psychiatric complaints than men particularly during almost all reproductive cycles and also during adolescence [2]. Depression is the best representative example which is more common in woman than in men and it particularly occurs at times of hormonal fluctuations. A hormonal triad of premenstrual depression, postnatal depression and climacteric depression is recently defined which is best referred to as 'reproductive depression' [3]. Recent studies utters the misdiagnosis of bipolar depression instead of reproductive depression. So, a 'tragic confusion' about diagnosis and treatment of mood disorders derived from hormonal fluctuations is existent [4]. Menarche and adolescence are the terms in which

#### Keywords

Menarche, psychiatric disorders, puberty, women mental health

#### History

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such hormonal fluctuations starts. Concurrently, psychiatric complaints start to occur at adelescence. Gender difference proves its importance during this period too. Mental distress is shown to be seen in girls more than boys and seen especially at the ages around 14 [5].

Menarche is investigated as an effective factor at the background of female adolescence problems. Early menarche has been linked to mental health and behavioral problems in several studies [6]. Psychopathological symptoms, suicide and self-harming behaviors are more common in early menarche students than in on-time and late menarche students [7].

Investigations about the associations between menarche age and psychiatric disorders are conducted for a while. For schizophrenia it is shown that the earlier the age at menarche, the later the ages at both the first psychotic symptoms and the first hospitalization but in another study existence of no relation between age of menarche and schizophrenia is shown [8,9]. Age of menarche is also found to be related severity of negative symptoms and course in schzophrenia [9].

Bipolar disorder is another psychiatric disorder shown to have relation with reproductive cycles of women. Women with bipolar disorder is considered to be more vulnerable to mood episodes in the context of reproductive events [10].

In a study, it is shown that the onset of bipolar disorder occurred before menarche in 32% of women; 18% experienced the onset within 1 year of menarche. First episode of bipolar disorders seen 32% of patients before menarche and the in 18 of patients the first episode is seen in 1 year [11]. Previous research has investigated the relationship between pubertal timing and depression in girls, with most results suggesting that earlier menarche predicts more depression in adolescence [12].

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