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Research Paper

CONCEPTUAL STUDY OF PUBERTY IN GIRLS: AN AYURVEDIC PERSPECTIVE AND RATIONALE OF AWARENESS PROGRAMME

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Abstract

Adolescence and puberty are the mile stone of growth. Ayurveda and modern physiology have elaborated all the aspects of puberty. The health of adolescent girls is the key for the strength of the nation. Many aspects of puberty in relation to the physical, psychological changes have to be addressed in a positive way. Awareness programmes will prove to be the significant method for helping adolescent to prevent themselves from fear, stress and anxiety.

Key words: puberty, adolescent girls, awareness programme.

INTRODUCTION

21st century is the era of women empowerment. This can be achieved only when women is physically fit and has a comprehensive peace of mind. This article is focused on the puberty in girls and awareness related to it. The reproductive age of female is marked by onset of puberty. The hallmark of the same is physical changes taking place. The emotional and psychological changes attribute to adolescence. Individuals falling in the age group of 10 to 19 years are the adolescent population. Adolescent population contributes to about one fourth of India's population. [1]In a cross sectional study including 521 girls of pubertal age, the conclusion reported are that 18.04%, 60.65%and 21.31%of the sample respectively had good, moderate and poor information regarding puberty, its disorders and preventions.[2]

Ayurved as well as modern physiology have thrown light on the concept of puberty. Sushruta has quoted that **vaya parinaman** is the stage when the hidden features are expressed. Just as a bud contains a sublime form of the budding flower, or a

seed contains a sublime form of the plant, the shukra dhatu in the body is a sublime form of progeny. This shukra dhatu is fully developed at vaya parinaman.^[3]

Many researchers are appreciably aimed at focusing the problems faced by these adolescent girls. Moreover the government is positively working for the betterment and uplifting the health of these girls.

AIM

To understand the concept of puberty according to Ayurveda.

OBJECTIVES

1. To study various physical changes in girls at time of puberty.
2. To study psychological status of adolescent girls.
3. To compile measures for healthy adolescent girls.

STUDY RATIONALE

India is on the threshold of becoming country with largest population of adolescent. The health of this population in turn will become the strength of the country. Focus on adolescent girl health is the prime factor as she is entering the reproductive life.

MATERIAL

1. All classical texts for conceptual study from Ayurvedic point of view.
2. Modern physiology text
3. Other reference books related to the topic
4. Internet search

METHODOLOGY

1. Thoroughly study all the references from Ayurvedic and modern text.
2. Attempt to co -relate the references
3. Discuss possible measures benefitting the health of adolescent girls.

Concept of puberty:

Puberty is the time when the gonads develop both endocrine and gametogenic functions. In Ayurveda the term “**ajatvanjanam**” is used while describing childhood. ^[4]

The term specify that the distinctive marks or features (as beard) i.e. Secondary sexual characters are not yet developed. [5]

Pubertal changes

1. Growth spurt:

The first evidence of adolescence is the growth spurt. There is an increase in the body weight and height.

2. Thelarche (breast development)

Budding of the breast is the first physical sign of puberty. The gradation of breast development is from stage 1 to 5, according to Tanner scale. [6]

In Ayurveda, the lakshanas of stana sampat are given. The breast should not be atiurdhwa (too much erect or upward), atilamba (over dangling), atipina (excessive corpulent), atiruksha (too emaciated) and should have appropriate nipple. The breast, which are comfortable for babies while breast feeding are said to be perfect ones. [7]

3. Adrenarche:

The adrenal androgen is responsible for the growth of the pubic and axillary hair in females. [8]

4. Menarche:

The onset of menstrual cycle is called menarche. It occurs around the average age of 12 years. The phases of menstrual cycle include resting (post menstrual) phase, proliferative (reparative phase), secretory (premenstrual phase) and menstrual phase. Ovulation occurs during the 14th to 16th day of menstrual cycle, the cycle being of 28 to 30 days. Estrogens and progesterone hormones are responsible for these phases whereas lutenizing hormone is responsible for ovulation. [9]

Ayurvedic view (rajapravrutti):

The rajapravrutti occurs around the age of 12 years while menopause at the age of 50 years. The cycle is of almost 30 days and includes three days of menstrual phase. [10]The

shuddha arthava swaroop is explained in the classical text. Overall it can be said that the colour of menstrual blood resembles that of rabbit's blood, laksha rasa, alakta, red lotus, rakta gunja, indragopa insect. The praman is 4 anjali. Other qualities of shuddha raja are that it should not be slimy; the stain on cloth is easily washed away. [11]

Psychological status in adolescent girls

1. The adolescent girls face various problems which can be grouped as menstrual hygiene and reproductive health, gender discrimination, conflict of emotions, acceptance of bodily changes, curiosity regarding sex and sexuality. [12]
2. The girls have to follow many restrictions depending upon the culture followed in families.
3. The emotional and psychological development is also dependent on the socio-economic background of that girl.
4. The upbringing of adolescent girl also depends upon the urban or rural background to which she belongs. In urban area girls are aware about puberty and related issues. [13]
5. The educational background of the family is the key factor for the psychological development of the girl. In a study it was observed that there significant difference in the attitude according to gender, type of family, education, father's education and having immediate elder siblings. [14]
6. Many cases of drop out from school are reported.

Awareness programme: critical need

Mostly the first-hand knowledge of puberty is imparted by mothers. The other sources being peer groups, friends, teachers, media, etc.

A study has concluded that there is need to develop friendly, trust worthy and healthy relationship for adolescent girl to seek valid and reliable knowledge regarding reproductive health. [15] The awareness programme should aims at smooth transition from childhood to adulthood.

Awareness programme may be designed by keeping following points in mind.

1. The structurally formulated and tested pre and post-test questionnaire will be beneficial to assess the extent of valid knowledge gained by the participant at the end of awareness programme
2. Power point presentations, interactive worksheet, use of audio-visual aid and anonymous question box can also be used effectively.
3. Information about anatomy and physiology of the female reproductive system and information of mammary glands.
4. Information about hormonal control and growth and development with respect to age should be explained.
5. Information related to pathology: pathology related to development of organs, menstruation e.g. polymenorrhea, dysmenorrhea, PCOS, delayed puberty, precocious pseudo puberty, variation due to hormonal imbalance, etc. should be explained
6. Nutritional guidelines: recommended nutrition allowance for girls as per ICMR
7. Special guidance of aahar and vihara during menstrual period is given Ayurveda, Moong dal, rice and ghee is to be consumed, this diet is called ' havishyam" . The food should be served on kartala(palms) or sharva (type of vessel). ^[16]This is mainly told from hygiene point of view. Nowadays hygiene of food and utensils can be considered.
8. Focus on hygiene: instruction about use of sanitary ware, handling and disposal of it. This is of utmost importance as unhygienic practice may lead to various infections.
9. Awareness about sexually transmitted diseases should be done. Teenage pregnancy is the other big problem related to young girls.
10. Family relationship: there should be good bonding in all family members. The family openness, support, freedom and trust are important from the emotional and psychological development of the girl.

DISCUSSION

After incorporating the Ayurvedic references from the classical texts Ayurvedic perspective regarding puberty can be highlighted. The important events occurring during puberty are well illustrated in Ayurved and modern physiology.

Vaya: Broad classification of age and its subdivisions is an interesting part and acquaint us with every bit of development. Two phases of balya vaya i.e. aparipakva dhatu and vivardhaman dhatu are explained.^[17]Praman sharir is well elaborated and gives complete knowledge regarding the growth of various avayava which is attained in grownup individual. ^[18] The doshaj prakruti of the girl will affect overall growth e.g. upachit paripurna sharir is lakshana of kapha prakruti. ^[19]

The description of peshi sharir, stana sampat, presence of sthana beeja at the urasthana all focus the thelarche. The description of romarajis puts light on adrenarache. Rajapravrutti , shuddha aartva, days of menstruation, age of menarache and menopause are well explained.

Dosha sambandha : The menstruation is under the control of apan vayu . It is responsible for holding the raja till prakrut kala and then initiating the menstrual flow, so it is necessary to avoid any activity which will vitiate the vaat dosha. ^[20]

Dhatu and updhatu: The raja and stanya are the updhatu of rasa dhatu.^[21]The rasa is the first dhatu which is nourished by the aahar rasa. The diet taken by the girls in this age of development will play a key role; hence it should be hitakar aahar.

Shukra dhatu Pradhan karma is grabhotpadan. This function is carried out by aartava in female ^[22] therefore proper nourishment of aartva is necessary. In Shusruta Samhita it is mentioned at during vayaparinaman there is shukra pradurbhav. This results in growth of romaraji: ^[23]

Agni: Strength of both jatharagni and dhatvagni of the individual girl should be taken into consideration while suggesting her nutritious diet. Havishyam diet is suggested during rajapravrutti is indication of this.

Srotas: The aartvavaha srotas moolasthan is garbhashaya and aartavavahini dhamanya..The healthy condition of uterus is important as it is one of the samugri of grabhotpadan. ^[24]

Vihar: It is also important to follow the daily regimen along with seasonal regimen as described in classical texts. Ayurveda has specially elaborated about different paricharyas to be followed by the female depending upon phases of her reproductive

life. Also young girls should refrain from sexual activity as it leads to prakcharna yonivyapad. [25]

Manas bhava: Rajas and tamas guna are said to be the dosha of manas. Whereas dhi, dhairya and atma vigyana are the param aoushada for manas dosha.[26] They help to keep the mind stable and stay away from pradnyaparadha. This is beneficial for adolescents so that they experience a fearless transition from childhood to adulthood. Moreover they can avoid indulgence in sexual activity.

In earlier days, women having “periods” were not allowed to enter temple, or perform the rituals, also she was not allowed to participate in household chaos. The reason behind this may be that there is need of rest. Now it is seen that women without taking any rest, only follow the rules but does all other activities.

CONCLUSION

Ayurveda has a detailed description of all the hallmarks of puberty.

There is association between puberty and literacy, socio-economic status and family background.

The awareness programme may help to reduce the percentage of girls suffering from pubertal problems both physiological and psychological.

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