A Descriptive Study to Assess the Risk Factors of Obesity among Housewives Residing at Selected Community, Setting in Kanchipuram District, Tamil Nadu

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Abstract

A descriptive study to assess the risk factors of obesity among housewives residing at selected community, setting in Kanchipuram District, Tamil Nadu. The objectives were to assess the risk factors of obesity among the housewives to find out the association between assess the risk factors of obesity and selected demographic data of obesity among the house wives. A non – experimental, descriptive study was conducted.

The sampling technique was non-probability, purposive sampling technique with the sample of 30 housewives among obesity and Structured questionnaires (SQ) in the form was used to the assess the risk factors obesity among housewives. The variables were assessed the assess the risk factors of obesity among housewives. Hypotheses were formulated. The level of significance selected was $p<0.05$. The investigator used demographic data and Structured questionnaires (SQ) was used to collect data. The data collection for the main study was done .

The collected data was tabulated and analysed. Descriptive and inferential statistical were used. The mean value was 207 and the standard deviation was 2.8133. The study shows that the risk factors of obesity inadequate 7 (23%) were moderate 21(70%) and adequate was 2 (7%). The study concludes that there is moderate 70% to assess the risk factors of obesity among housewives.

Keywords: *Assess risk factors, housewives living with obesity.*

Introduction

Obesity is a complex condition, one with serious social and psychological dimensions, that affects virtually all age and socio-economic groups and threatens to overwhelm both developed and developing countries. As in developed societies, the risk for obesity in developing countries is also strongly influenced by diet and lifestyle, which are changing dramatically as a result of the economic and nutrition transition. Obesity is a key risk factor in the natural history of non-communicable diseases like hypertension[2]

According to WHO global estimates, about 13% of the world's adult population (11% of men and 15% of women) were obese in 2014. Prevalence of obesity varies according to age, sex and region. In India the percentage of ever married women aged 15-49 years who are overweight or obese increased from 11% in National Family Health Survey (NFHS)-2 to 15% in NFHS-3. The percentage of women who are overweight or obese is highest in Punjab (29.9%), followed by Kerala (28.1%) and Delhi (26.4%). Therefore in the present study, an attempt has been made to find the prevalence and risk factors for overweight and obesity in women aged 20-60 years in Ludhiana city.[4]

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Obesity is a major health problem and becomes an important epidemic in both developed and developing countries since an increase in the risky lifestyles. Obesity is a global problem, affecting and estimated 300 million people worldwide and its prevalence in the recent decade hade a rapid increase (17%). Obesity substantially in the increase the risk of several major cancers especially postmenopausal breast cancer and endometrial cancer. Moreover, study indicated that overweigh and obesity are associated with an increase in mortality and a considerable reduction in life expectancy[1].

Obesity is a complex condition, one with serious social and psychological dimensions, that affects virtually all age and socio-economic groups and threatens to over whelm both developed and developing countries. As in developed societies, the risk for obesity in developing countries is also strongly influenced by diet and lifestyle, which are changing dramatically as a result of the economic and nutrition transition. Obesity is a key risk factor in the natural history of non-communicable diseases like hypertension[5]. According to WHO global estimates, about 13% of the world's adult population (11% of men and 15% of women) were obese in 2014. The foods we eat every day contribute to our well-being. Foods provide us with the nutrients we need for healthy bodies and the calories we need for energy . If we take in more calories than we burn, the extra food turns to fat and is stored in our bodies. If we overeat regularly, we gain weight and if we continue to gain weight, we may become obese.[4]

Objectives:

- To assess the risk factors of obesity among the house wives.
- To find out the association between the risk factors of obesity and selected demographic data of obesity among the house wives.

Hypothesis:

H 1: There will be a significant association between the risk factors of obesity and demographic data of the obesity among the house wives.

Research Methodology: Research approach for the present study was a quantitative descriptive approach.

The research design is non experimental descriptive design was used for the study. The study was conducted at Paiyanoor village, Kanchipuram District, Tamil Nadu with the population of house wives, available in the age group of 20-60 years. The sample size was 30 house wives in the age of 20-60 years who were residing in Paiyanoor village, Kanchipuram District. The participants of the study were selected by purposive sampling technique.

Selection and Development of Study Instruments:

It consisted of two sections.

1. Demographic data of the subjects
2. Structured questionnaires.

Section A: The consent form to be obtained from each study sample was given in section A.

Section B: It consisted of demographic data of obesity among the housewives which includes age in years, educational qualification, religion, occupation, socio economic status, how many times do your meals in a day, are you vegetarian or non-vegetarian and BMI.

Section C: Structured questionnaire (SQ) in the form was used to the assess knowledge level of risk factors obesity among housewives.

Scoring and Interpretation of the Tool: Structured questionnaires consist of 12 items. The total attainable score was 12. The cut off score was 8. Higher the cut off score indicates greater the knowledge level of risk factors of obesity and also correlated to BMI.

Table: 3.1. To assess the knowledge level of risk factors obesity among housewives was interpreted which was presented in the table:

Data Collection Procedure: The data collection was done for one week at Paiyanoor village, Kanchipuram District, Tamil Nadu. Structured questionnaire was used to assess the knowledge level of risk factors of obesity among housewives. The researchers collected the demographic data and structured questionnaire (SQ) by conducting confidential data of the participants.

Data Analysis: The data analysis was done using descriptive and inferential statistics. Descriptive statistics like frequency, percentage and mean. Chi-square test was used to find out the association between the risk factors and selected personal information sheet of the obesity among housewives. Collected information on demographic data of housewives and assess risk factors on obesity among housewives and Structured

questionnaires (SQ) in the form of demographic data of housewives which includes age, educational qualification, occupation, family monthly income, BMI. Descriptive and inferential statistical were used. The mean value is 207 and the standard deviation is 2.8133.

Results

Table 1: Mean, Mean% and assess the knowledge level of risk factors for obesity among housewives. [N= 30]

S.No.	Level of knowledge	Number of House Wives	Total of Number Question	Score Range	Total Sore	Mean	Mean %	Knowledge %	
								Individual	Total
1	Inadequate knowledge	30	12	0-5	7	207	88%	23%	100%
2	Moderate knowledge	30	12	6-7	21			70%	
3	Adequate knowledge	30	12	10-12	2			7%	

The study shows that the risk factors of obesity inadequate 7(23%) were moderate 21(70%) and adequate was 2(7%). The study concludes that there is moderate 70% to assess the risk factors of obesity among housewives.

Conclusion

The finding of the present study reveals that significant association between assess the risk factors of obesity among housewives with selected demographic data housewives [Educational Qualification And Occupation] and there is no significant association between like age in years, family monthly income, BMI.

Conflict of Interest: Nil

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Assessment of Presence of the Phenotypic Characteristics of Polycystic Ovarian Syndrome among Young Adult Girls in a Selected College, Kanchipuram District, Tamil Nadu, India

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Abstract

Assessment of presence of the phenotypic characteristic of Polycystic Ovarian Syndrome among young adult girls in a selected college in Kanchipuram District, Tamil Nadu. The Objectives are to assess the phenotypic characteristics of polycystic ovarian syndrome among young adult girls. To determine the association between phenotypic characteristics with selected demographic variables. The convenience sampling technique was used to select 295 sampling. Validity and Reliability data collection tools were established. The data were collected by self-structured questionnaires. The collected data were tabulated and analyzed. The findings of the present study Shows that the presence of phenotypic characteristics of PCOS based on score of hirsutism was estimated to be (39.7%) and based on grading of acne was estimated to be (66.8%) of young adult girls have mild acne characteristics of PCOS, (13.5%) of young adult girls have moderate acne characteristics of PCOS.(11.9%) have severe acne characteristics of PCOS and (7.8%) have very severe acne characteristics of PCOS.

There is significant association between the demographic variables and the scoring of hirsutism of young adult girls in their age, residence, age of menarche, regulation of menstrual cycle, length of menstrual cycle, BMI at p value= <0.05 level of significant. And there is significant association between demographic variables and the grading of acne among young adult girls in their residence, menstrual cycle, length of menstrual cycle, family history of PCOS, co-morbidities, BMI at p value= <0.05% level of significant.

Keywords: *Phenotypic characteristics of polycystic ovarian syndrome, Young adult girls.*

Introduction

Polycystic ovarian syndrome (PCOS) is the common endocrine disorder of women in reproductive age . PCOS was described by Ashtyn and Leventhal. PCOS is a major public health concern in terms of a frustrating experience for women and a challenging complex syndrome for clinicians.[1-2]

Prevalence estimates highly variables on age group depending on difficulties in hormonal evaluation.[3] and ranging from 2.2% to 26%. The prevalence has been increasing in the adolescent population [4], In more than 40% of cases, PCOS is associated with obesity, as well as impaired glucose tolerance, type 2 diabetes and the metabolic syndrome. [5] During this pubertal transition, several features may be in evolution and thus many findings may be transitory which stabilize later during diagnosis in order. PCOS is the important to make an early diagnosis in order to prevent early and late sequel of the syndrome.

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The characteristics of PCOS include increased secretion of androgen level (hyperandrogenesim) and gonadotropin releasing hormone (GnRH) that leads to menstrual irregularity, hirsutism and infertility[6]. It can be diagnosed at all the phases of life that girls having 8-9 year of age through post- menopausal females. Amenorrhea is the most common problem of PCOS in young girls.[7] obesity is also common features in women with PCOS and Family history of obesity, diabetes mellitus, thyroid disease, PCOS is strongly supports a genetic susceptibility to this disorder at present lifestyle, food habits, environmental exposures to toxins and stress have also contributed to the development of PCOS.

Insulin resistance is central to the pathogenesis of PCOS [8] Indians are known to have high prevalence of insulin resistance, so the prevalence of PCOS is expected to be high in the Indian population [9]. The short complications of polycystic ovarian disease include menstrual irregularities, hyperandrogenism, insulin resistance and hyperinsulimia, obstructive sleep apnea, dyslipidemia, oligoovulation anovulation and the long-term complications includes endometrial hyperplasia, metabolic syndrome, cardiovascular disease and psychological disorders**.**

Materials and Method

A Quantitative descriptive approach with a cross sectional design was used in the study . The study was carried out in a selected college, Kanchipuram District, Tamil Nadu, India. The study population included all young adults girls in the selected colleges. The young adult girls who fulfilled the sampling criteria were the samples for this study. The sample was selected by using a convenient sampling technique.

Inclusion Criteria:

The Young Adults Who

- Are in the age group from 18-21years
- Young adult girls who are willing to participate in the study

Exclusion Criteria:

The Young Adult Girls Who:

- are not available during the study period
- are all having congenital abnormalities
- Transgender are excluded from the study

Sample size Estimation: All young adult girls in selected colleges, Kanchipuram District, Tamil Nadu were the population.

Samples of 295 adult girls in selected college in Kanchipuram District

Young adult in age group between of 18-21 year.

Sample Size:

Sample calculation formula = $Z^2p(1-p)/d^2$

= $1.96^2(0.26)(1-0.26)/0.05^2$

Sample Size = 295

Z-Level of confidence standard 95% value is 1.96

p-expected prevalence

d-precision value is 0.05

Data Collection: The data collection procedure will be carried out for period of 6 days. The study will be initiated after obtaining prior permission from to concerned authorities. The data will be collected from the adolescent girls in selected college.

The research tool consisted of two sections.

The structured interview format contains question of the following section.

Section 1:Standardized Questions related to demographic variables

Section 2:

A. Selected standardized variables

B. Standardized scales for Hirsutism.

C. Global Acne scale.

In this study standardized questionnarie was used to elicit demographic variables and standardized scales for hirsutism and global acne scale was used to assess the presence of phenotypic characteristics of PCOS among young adult girls and the score for hirsutism was interpreted as follows below 6 is absent, above 6 is present hirsutism.

Categorization of global acne score:

The Global Acne Grading System[12]	
Location	**Factor**
Forehead	2
Right cheek	2
Left cheek	2
Nose	1
Chin	1
Chest and upper back	3

Note: Each type of lesion is given a value depending on severity: no lesions = 0, comedones = 1,papules = 2,pustules = 3 and nodules = 4. The score for each area (Local score)is calculated using the formula: Local score = Factor xGrade (0-4). The global score is the sum of local scores and acne severity was graded using the global score . A score of 1-8 is considered mild: 19-30,moderate;31-38, severe; and >39,very severe.

Analysis: Descriptive and Inferential statistics was used to analyze and interpret the data. Descriptive analysis was used to analyze the demographic data. Chi square test was used to determine the association between phenotypic characteristics of PCOS with selected demographic variables.

Study Findings: Distribution of demographic variables among young adult girls.

The demographic characteristics were included in this study was age, residence, age of menarche, menstrual cycle, regulation of menstrual cycle, length of menstrual cycle, family history of PCOS,co-morbidities, BMI.

This study found that the age (60.3%) belongs to the age group of 18-19 years and (39.7%) belongs to the age group of 20-21 years. This study also found the age (73.2%) were adolescents (15-19 years) which is similar to the findings of **Beena Joshi, Srabani Mukherjee**, "et al'' showed that.

In regard (65.8%) of young adult girls have menarche between age group of 12-14 years, (8.1%) have menarche between 19-11 years, (26.1%) have menarche at age >14 years. In regard (73.5%) have 3-5 days menstrual cycle, (24.1%) have 5-7 days menstrual cycle, (2.4%) have above 7 days menstrual cycle. (72.5%) have regular menstrual cycle and (27.5%) have irregular menstrual cycle.(67.8%) have 28 days length of menstrual cycle, (23.7%) have 1-2 days length of menstrual cycle, (7.5%) have 3-4 days length of menstrual cycle, (1%) of young adult girls have more than 4 months length of menstrual cycle.(3.4%) of young adult girls have history of PCOS in their family while (96.6%) young adult girls show no history of PCOS. (1%) of young adult girls have diabetes mellitus, (3.4%) have hypertension, (1.4%) have thyroid problem, (94.2%) of young adult girls shows no problem in their medical condition.(61%) of the young adult girls were having normal BMI, (25.1%) of young adult girls were of underweight, (13.9%) of young adult girls comes under obese.

- **The first objective of the study was** To Assess presence of phenotypic characteristics of Poly Cystic Ovarian Syndrome Among young adult girls. In this study was observed the presence of phenotypic characteristics of Poly cystic ovarian syndrome based on the score of hirsutism it was estimated to be (39.7%) and based on grading of acne it was estimated to be (66.8%) of young adult girls have mild acne characteristics of PCOS, (13.5%) of young adult girls have moderate acne characteristics of PCOS.(11.9%) have severe acne characteristics of PCOS and (7.8%) have very severe acne characteristics of PCOS.
- **The second objective of the study was** Determine the association between phenotypic characteristics with selected demographic variables. There was statistically significant association between the demographic variables and the scoring of hirsutism of young adult girls in their age, residence, age of menarche, regulation of menstrual cycle, length of menstrual cycle, BMI at p value= <0.05 level of significant. There is no significant association between the other demographic and the scoring of hirsutism of young adult girls in their menstrual cycle, family history of PCOS, co-morbidies.

Conclusion

The findings of the present study Shows that the presence of phenotypic characteristics of PCOS based on score of hirsutism was estimated to be (39.7%) and based on grading of acne was estimated to be (66.8%) of young adult girls have mild acne characteristics of PCOS, (13.5%) of young adult girls have moderate acne characteristics of PCOS.(11.9%) have severe acne characteristics of PCOS and (7.8%) have very severe acne characteristics of PCOS. There is significant association between the demographic variables and the scoring of hirsutism of young adult girls in their age, residence, age of menarche, regulation of menstrual cycle, length of menstrual cycle, BMI at p value= <0.05 level of significant. And there is significant association between demographic variables and the grading of acne

among young adult girls in their residence, menstrual cycle, length of menstrual cycle, family history of PCOS, co-morbidities, BMI at p value= <0.05% level of significant.

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Conflicts of Interest: The Authors declared that there is no conflict of Interest.

Source of Funding: Self

Ethical Clearance: The Study was done with the approval of the institutional Ethics Committee Chettinad Academy of Research and Education.

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