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A SURVEY PROJECT ON PREVALENCE OF EATING DISORDER PICA IN WOMEN OF AGE GROUP (18-45) IN HYDERABAD

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ABSTRACT

Background: Pica is an eating disorder characterized by abnormal consumption of non-edible and non-nutritive substances. It is mainly caused by nutritional deficiencies such as anaemia and other micronutrient deficiencies. This disorder may cause further health conditions such as worm infestation in children, diarrhea, bowel obstruction, dental issues. It is a common disorder requiring immediate action. Patients suffering from pica are often ashamed and don't seek help for their condition. Initiatives need to be taken to ensure treatment and widespread awareness.

Objective: To study the prevalence of eating disorder pica and observe the common physical health issues among women of age group (18-45 yrs) in Hyderabad. To study abnormal eating habits and the non-edible substances consumed by these women and to derive any link between mental wellbeing and pica.

Method: A questionnaire was administered to the women (18-45 yrs) to determine the prevalence of eating disorder pica and observe their common eating habits. Total 305 women were interviewed via an online questionnaire method. Results indicated that almost half of the percentage of women were suffering from this eating disorder and reported physical health issues. Most women with pica were also affected by mental health issues.

Result: It was observed that a significant number of the women were affected by pica and they reported some health issues. Most women with pica showed signs of mental health disorders but only some of them were willing to seek help for their condition.

Conclusion: Pica can impact one's quality of life, mostly caused by micronutrient deficiencies and must be taken care of before it causes other conditions.

Keywords: Eating Disorder, Mental Health, Micronutrient Deficiencies, Pica.

INTRODUCTION

Eating Disorders are serious and life-threatening conditions that heavily affect one's quality of life. The cause is often psychological but in compulsive eating disorder pica a person may be suffering from a previously existing condition. Some of the most common conditions are iron deficiency, zinc and other micronutrient deficiencies. Pica suffering individuals compulsively consume or ingest non edible items in response to their cravings. It is commonly seen in children and pregnant or lactating women. This eating disorder is often overlooked and not treated, persisting pica can cause other complications such as gastric obstruction, mouth sores, dental injury, diarrhea, constipation, neurocognitive issues, choking hazards, lead toxicity etc. India is a developing country and with its increasing population the most affected groups are the lower socioeconomic strata of the society. Poverty and poor hygiene habits worsen eating patterns. Lack of awareness of pica and malnutrition may lead to the progression of the existing circumstances.

REVIEW OF LITERATURE

Eating disorder pica is the compulsive ingestion of non-edible and non-nutritive substances (clay, dirt, stones, plaster, raw rice, coal etc). Mainly caused by nutritional deficiencies such as iron deficiency anaemia and other micronutrient deficiencies [16]. It may cause other complications like obstruction in the alimentary canal, toxicity, calorie excess (in case of eating starch), worm/parasitic infestation, dental injuries, mouth sores and other gastrointestinal symptoms [1]. Low haemoglobin and high blood lead levels cause neurocognitive issues in young children [11]. Low-income groups have a tendency to consume fewer food groups and their fruits and vegetable intake is lower than others. Inadequacy of diet and ignorance leads to further deterioration of existing health conditions and nutritional deficiencies [12].

In other groups, deficiencies could occur due to pre-existing eating disorders like anorexia nervosa. Fussy eating in children and image problems in teens affect their nutritional status [8]. Sometimes pica is more likely to be seen in children if their mothers have the same compulsive eating disorder [9].



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DOI: <http://ijmer.in.doi./2022/11.01.54>

Cultural beliefs and food myths lead to restrictions in diet where people exclude one or more food groups from their diet. Eating disorders arise from biological, psychological and cultural factors [14]. Biological factors like palatability in pica affect the frequency of consumption of non-nutritive substances, soon it either becomes an addiction or compulsion.

It has mostly been observed in children, young adolescents, pregnant or lactating women due to increased nutritional demand [2,10,13,14]. Pica is mostly seen in low socioeconomic status areas. Recent studies indicate that pica must be included with the obsessive-compulsive spectrum of disorders [3]

Pica goes unreported due to embarrassment or it is often overlooked and not taken seriously.[4] Lead toxicity and iron deficiency are interlinked and it is important to look for signs of lead toxicity in patients, some of which symptoms are anaemia, muscle pain, abdominal discomfort, fatigue etc. [5] It may be due to the similar absorption mechanisms of both iron and lead. Pica and iron deficiency go hand in hand. This abnormal eating behaviour which is caused by iron deficiency anaemia may in turn make the condition worse. Hence pica and anaemia coexist and are interdependent as a result blood lead levels increase in the patients. [6,15] Mental burden and stress may also cause pica[7]. Pica can also be manifested as an obsessive-compulsive disorder.[17]

There are worldwide studies and research works conducted on other eating disorders like binge eating disorder, anorexia nervosa, anorexia bulimia etc. But it is often pica disorder that has been normalised and not given much attention to, indicating the general attitude towards a highly abnormal and hazardous condition [3]

AIMS AND OBJECTIVES

- To study the prevalence of eating disorder pica in young women (18-45yrs)
- To observe the health issues and abnormal eating habits in these women.
- To derive a link between eating disorder pica and mental health issues

MATERIALS AND METHOD

The present study was conducted via online mode using google forms with a structured questionnaire (2-4-21, APR-JUN). The questionnaire was administered to women to determine the prevalence of eating disorder pica and to observe their physical health status. A total of 305 women were interviewed via an online questionnaire method.

The survey was conducted using an online questionnaire method. Questionnaires were distributed to participants through online media platforms. The data collected was on their health status, abnormal eating habits. Information was obtained through an online survey that was conducted. The questionnaire included age, occupation, annual income, a few questions about abnormal eating habits and physical health status. The responses were analysed using Microsoft excel and Google docs.

RESULTS

When asked about age, of the total respondents 88.2% belonged to the 18-25 age group, 6.2% to 26-33 and 6.9% to 34-45 age group. The majority of the participants were young women.

Of the total participants, 28% of the women belonged to a household wherein annual income was 1 lac per annum, 25.6% of the participants belonged to the category 12 lac per annum or more, 22.8% chose the category below 1 lac per annum and 23.6% belonged to other. From the above data 80.3% of the women were students, 10.8% were homemakers, 3.9% were employed, 3.9% were unemployed while the rest were miscellaneous.

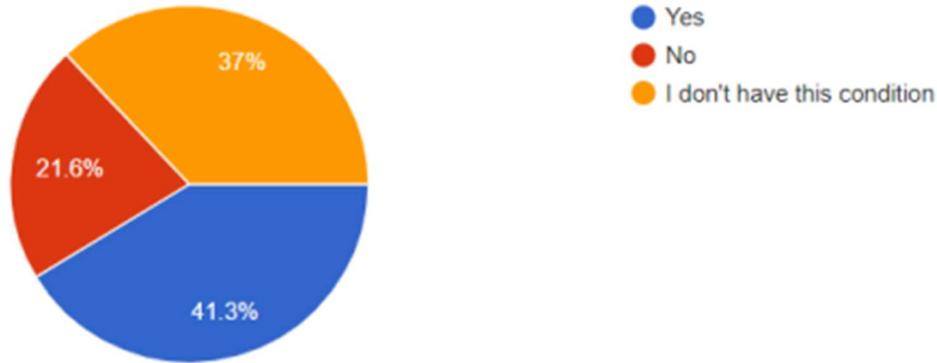
Out of total participants 87.2% were non vegetarians, 9.2% were vegetarians, 0.3% were vegan and 3.3% were others. Majority of the respondents were non vegetarians; only a few were vegetarians. 51.1% respondents did not have cravings, 21.6%- yes occasionally, 13.8% did have cravings in the past, 9.2%- yes often and 3.6% women experienced cravings while pregnant or nursing. Even though a major population of respondents were non vegetarians, 51.1% respondents were experiencing cravings of ingestion of non-edible items.



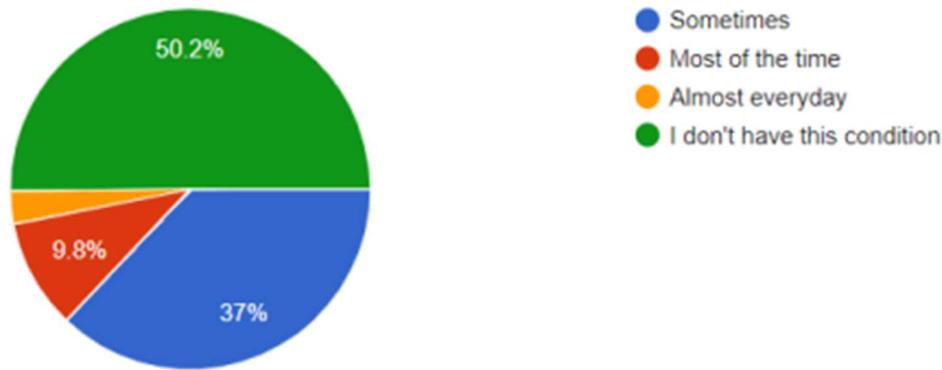
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DOI: <http://ijmer.in.doi./2022/11.01.54>



From the above pie chart, we can see that 41.3% of women were affected by pica.



Half of the total respondents who participated in this survey admitted that they acted on cravings of consuming non edible items. Out of 17 items, the most significant ones that were consumed were ice (21.3%), chalk (18%), raw rice (17.7%), lime powder/khadi (9.8%), paper (6.2%), raw flour (3.3%) and mud/dirt (3.6%).

It was observed that the items that were favourable to women affected by pica were ice, chalk, raw rice, raw flour, lime powder/khadi, paper, and mud/dirt. Raw and uncooked food items can cause worm/parasite infestation, obstruction and other gastrointestinal problems. Consumption of ice and chalk may cause dental injury and mouth sores.

From the above survey only 36.7% women considered themselves healthy, 29.5% were overweight, 19.7% were underweight, 3.6% women had metabolic disorders and the remaining 10.5% women were aware of their micronutrient deficiencies and were fatigued.

From the total participants 9.5% were reportedly affected by dental injury, 11.5% were affected by mouth sores, 29.5% by stomach ache, 0.3% by constipation/diarrhea and 2.6% by worm infestation. The remaining participants were not affected with pica. One participant mentioned irregular menstrual cycles which may or may not be a complication of pica.

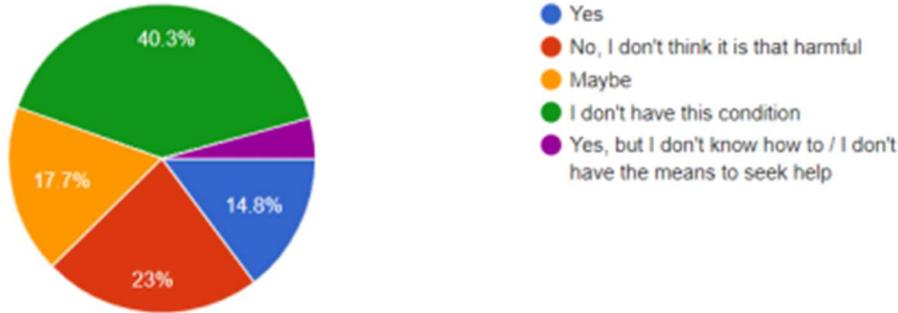
Around 35.1% of the surveyed respondents were not aware of any deficiencies that they may have, 18.4% did not have any deficiencies, 27.2% participants had iron, 23% - vitamin D, 26.6% - calcium, 9.5% - zinc, 8.2% - B vitamins, 5.6% - vitamin C. The rest of the participants were not affected by pica.



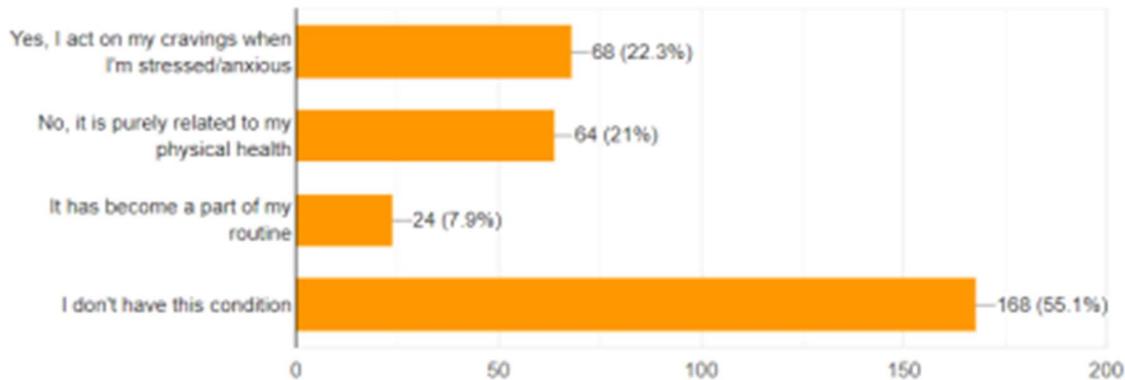
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DOI: http://ijmer.in.doi./2022/11.01.54



23% of the women were not aware of the detrimental effects of pica and did not find it to be harmful while 44.3% women wanted to seek help for their eating disorder pica. This shows the general attitude towards pica and a lack of awareness. It is often overlooked and not taken care of. A good population of the participants wanted to seek help for the condition as they were aware of the consequences that come along with it.



22.3% of the participants admitted that they had these cravings when they were stressed or mentally burdened, 24.7% women were habitually consuming non edible items and 55.1% of the participants were not affected by pica. Hence stress plays a significant role in the continuity of pica.

About 32.5% respondents were affected by anxiety disorders (general anxiety disorder, OCD, specific phobias, panic disorder etc), 26.6% had sleep disorders, 10.2% suffered from depression, 4.3% women had ADHD (attention deficit hyperactivity disorder) while the remaining participants were not affected with pica. This indicates the importance of emotional wellbeing in the maintenance of overall health and that mental health issues do contribute to the progression of eating disorder pica.

DISCUSSION

From the above survey we are able to draw out various conclusions. Majority of the women belonged to the 18-25 yrs age group, were students and most of them belonged to middle class families. Major portion of the participants were non vegetarians yet almost half of them were affected by pica. Commonly consumed non edible items were chalk, ice, raw rice, lime powder/khadi and paper. It was observed that only a small portion of the participants considered themselves as healthy while the rest were either overweight, underweight or deficient in nutrients and fatigued. Most women suffering from pica also experienced mouth sores, dental injuries and stomach ache. About half of the participants did have a mineral or vitamin deficiency indicating poor health. On the other hand, a significant portion of the women did not consider pica harmful and did not affirm to seek help for their condition. According to the survey, a good part of the women who were affected by pica were also suffering from mental health disorders like anxiety disorders, depression, ADHD, and sleep disorders indicating a link between mental health and pica. Emotional and mental wellbeing is also as important as physical health and it must be taken into consideration.



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CONCLUSION

Eating Disorders and disrupted eating patterns are serious concerns, it is even more critical if it is ignored or unreported due to the number of complications it may arise. Education on nutrition and psychological counselling is of utmost importance in treating this disorder, along with medical supplementation. Parents must supervise their children for any abnormal behaviours and ingestion, they must keep away lead containing products from kids (paint chips, cement etc)

Diagnosis of pica may be difficult but in case of any micronutrient deficiencies it should be controlled soon before other complications arise or cravings develop.

Anaemia and other micronutrient deficiencies must be treated and patients must be counselled. Maintaining hygiene while handling food and consuming food is crucial to avoid parasitic infections. Pregnant and lactating women should also be taught about the importance of diet during such life stages and must be given nutrient supplements. Hence, through awareness programs and demonstrations, the importance of diet and hygiene must be taught in the interest of public health. It must be taught that eating disorders are not to be overlooked rather controlled before it causes any more harm.

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