



Assessment of the Patterns of Exercise and Diet Intake among the Pregnant and Pre-pregnant Women Reported at Gynae OPD Civil Hospital Khairpur, Sindh, Pakistan

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Authors' contributions

This work was carried out in collaboration among all authors. Author NFP designed the study, performed the statistical analysis, wrote the protocol and wrote the first draft of the manuscript. Authors FU, BN, FS, QUA, RS and AA managed the analyses of the study and managed the literature searches. All authors read and approved the final manuscript.

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ABSTRACT

Objectives: The objective of this study is to assess the patterns of exercise and diet intake among the pregnant and pre pregnant women visiting the Gynae OPD Civil Hospital Khairpur, Sindh, Pakistan.

Methodology: This is a descriptive cross sectional study conducted at the Gynae OPD Civil Hospital Khairpur, Sindh, Pakistan, from November 2020 to January 2021. A well-structured questionnaire was introduced to collect the study data and consent was taken. Sample size was calculated by Slovin's Formula which was 400 with 95% confidence level and 5% margin of error. Results were analyzed by using statistical package for social sciences (SPSS) software version 23.

Results: Results reported that, out of 400 women, during pregnancy 304 were not having gestational diabetes, before pregnancy 348 women did not exercise. It was also found that out of 322 having normal range of Body Mass Index (BMI) during pregnancy 36 of participants performed exercise, before pregnancy 40 performed the exercise, during pregnancy 256 did the household work, during pregnancy 42 followed the special diet.

Conclusion: It was concluded that women who visited the OPD do not exercise properly and do not take proper diet before and during pregnancy because of inadequate awareness of role of exercise and diet for pregnancy.

Keywords: Diet; exercise; pregnant women; pre-pregnant women; Khairpur Mirs.

1. INTRODUCTION

For satisfactory birth outcomes adequate diet and exercise is very important before and during pregnancy. In developing countries, inadequate diet and exercise before and during pregnancy is the major cause of low birth weight. Increased mortality is significantly associated with low birth weight as well as post natal growth is also associated due to which the cognitive and physical health of the baby might be affected [1-4].

In Pakistan, the government policies address the diet intake for children under 5 year age and pregnant women. There is prevalence of underweight women is approximately 23% in Pakistan. In Pakistan, micronutrient and anemia among pregnant women are high approximately 50% which results in poor outcomes of the pregnancy. In Pakistan, there is very inadequate intake of diet and improper exercise among pregnant women [5].

According to the WHO, during any disease the health not only absent, but the physical and mental performance of an individual is also affected. Malnutrition is worsened due to imbalanced nutrients which can lead to improper mental and physical health as well performance. In developing countries, the deficiencies of nutrition began in first 1000 days of life which are irreversible mostly [6].

Proper diet and exercise has a great impact on the health of mother and has vital role fatal

development. According to the Institute of Medicine, it was recommended that three meals or two to three snacks should be taken per day and minimum thrice a week exercise should be performed [7].

This study aims to assess the patterns of exercise and diet intake among the pregnant and pre pregnant women visiting the Gynae OPD Civil Hospital Khairpur, Sindh, Pakistan.

2. METHODOLOGY

This is a descriptive cross sectional study conducted at the Gynae OPD Civil Hospital Khairpur, Sindh, Pakistan, from November 2020 to January 2021. A well-structured questionnaire was introduced (consist of the questions related to study) to all pregnant women visiting Gynae OPD to collect the study data by purposive sampling technique and consent was taken. Sample size was calculated by Slovin's Formula [8] which was 400 with 95% confidence level and 5% margin of error. Results were analyzed by using statistical package for social sciences (SPSS) software version 23.

3. RESULTS

Results reported that, out of 400 women, during pregnancy 304 were not having gestational diabetes, before pregnancy 348 women did not exercise, before pregnancy 284 were not walking, during pregnancy 354 did not exercise, before pregnancy 266 preferred the climbing

stairs, during pregnancy 266 preferred climbing stairs, before pregnancy 312 did household work, during pregnancy 370 did household work, during pregnancy 284 took meats thrice a day, during pregnancy 110 took snacks twice a day, before pregnancy 232 were taking three chapattis/wheat flour, during pregnancy 228 were taking three chapattis/wheat flour, before pregnancy 230 were not taking milk, during pregnancy 152 were taking one glass of milk, before pregnancy 164 were not taking dairy substances, during pregnancy 170 were taking one dairy substance, during pregnancy 180 were taking 1 fruit and before pregnancy 356 did not

take supplements. It was also found that out of 322 having normal range of BMI during pregnancy 36 of participants performed exercise, before pregnancy 40 performed the exercise, during pregnancy 256 did the household work, during pregnancy 42 followed the special diet [Table 1-23].

4. DISCUSSION

Exercise and malnutrition resembles as a phenomena of iceberg. Most individuals in the developing and developed countries are evolved in adequate exercise and malnutrition.

Table 1. Distribution of gestational diabetes in previous pregnancies

Gestational Diabetes in Previous Pregnancies	Frequency	Percentage (%)
Yes	96	24
No	304	76
Total	400	100

Table 2. Distribution of exercise before pregnancy

Exercise before pregnancy	Frequency	Percentage (%)
Yes	52	13
No	348	87
Total	400	100

Table 3. Distribution of walk during pregnancy

Walk during pregnancy	Frequency	Percentage (%)
Yes	136	34
No	264	66
Total	400	100

Table 4. Distribution of walk before pregnancy

Walk before pregnancy	Frequency	Percentage (%)
Yes	116	29
No	284	71
Total	400	100

Table 5. Distribution of exercise during pregnancy

Exercise during pregnancy	Frequency	Percentage (%)
Yes	46	11.5
No	354	88.5
Total	400	100

Table 6. Distribution of climbing stairs before pregnancy

Climbing stairs before pregnancy	Frequency	Percentage (%)
Yes	266	66.5
No	134	33.5
Total	400	100

Table 7. Distribution of climbing stairs during pregnancy

Climbing stairs during pregnancy	Frequency	Percentage (%)
Yes	266	66.5
No	134	33.5
Total	400	100

Table 8. Distribution of household work during pregnancy

Household work during pregnancy	Frequency	Percentage (%)
Yes	312	78
No	88	22
Total	400	100

Table 9. Distribution of household work before pregnancy

Household work during pregnancy	Frequency	Percentage (%)
Yes	370	92.5
No	30	7.5
Total	400	100

Table 10. Effect of exercise on BMI during pregnancy, exercise during pregnancy

Count	YES	No	Total
BMI<25	36	286	322
BMI>25	10	68	78
Total	46	354	400

Table 11. Effect of exercise on BMI before pregnancy, exercise before pregnancy

Count	YES	No	Total
BMI<25	40	282	322
BMI>25	12	66	78
Total	52	348	400

Table 12. Effect of household work on BMI during pregnancy, Household work regularly

Count	YES	No	Total
BMI<25	256	66	322
BMI>25	56	22	78
Total	312	88	400

Table 13. Distribution of patients follow special diet during pregnancy

Count	YES	No	Total
BMI<25	42	280	322
BMI>25	12	66	78
Total	54	346	400

Table 14. Distribution of meals during pregnancy

Meals during pregnancy	Frequency	Percentage (%)
1	6	1.5
2	60	15
3	284	71
4	46	11.5
5	4	1
Total	400	100

Table 15. Distribution of snacks during pregnancy

Snacks during pregnancy	Frequency	Percentage (%)
0	156	39
1	70	17.5
2	110	27.5
3	40	10
4	20	5
5	4	1
Total	400	100

Table 16. Distribution of chappatis/wheat flour intake before pregnancy

Chappatis/wheat flour intake before pregnancy	Frequency	Percentage (%)
1	14	3.5
2	102	25.5
3	232	58
4	44	11
5	4	1
6	4	1
Total	400	100

Table 17. Distribution of Chappatis/wheat flour intake during pregnancy

Chappatis/wheat flour intake during pregnancy	Frequency	Percentage (%)
1	2	0.5
2	64	16
3	228	57
4	56	14
5	20	5
6	22	5.5
7	4	1
8	2	0.5
9	2	0.5
Total	400	100

Table 18. Distribution of milk intake before pregnancy

Milk intake before pregnancy	Frequency	Percentage (%)
0	230	57.5
1	142	37.5
2	26	6.5
3	2	0.5
Total	400	100

Table 19. Distribution of milk intake during pregnancy

Milk intake during pregnancy	Frequency	Percentage (%)
0	150	37.5
1	152	38
2	58	14.5
3	40	10
Total	400	100

Table 20. Distribution of dairy products intake before pregnancy

Dairy products intake before pregnancy	Frequency	Percentage (%)
0	164	41
1	156	39
2	70	17.5
3	10	2.5
Total	400	100

Table 21. Distribution of dairy products intake during pregnancy

Dairy products intake during pregnancy	Frequency	Percentage (%)
0	90	22.5
1	170	42.5
2	102	25.5
3	30	7.5
4	4	1
5	2	0.5
6	2	0.5
Total	400	100

Table 22. Distribution of fruits during pregnancy

Fruits during pregnancy	Frequency	Percentage (%)
0	126	31.5
1	180	45
2	78	19.5
3	10	2.5
4	6	1.5
Total	400	100

Table 23. Distribution of supplements before pregnancy

Supplements before pregnancy	Frequency	Percentage (%)
0	356	89
1	40	10
2	4	1
Total	400	100

Maternal hunger is most genuine general wellbeing worry as it not just motivation complexities during what's more, after pregnancy yet in addition motivations negative consequences for youngsters which bargains for what seems like forever. This current examination showed the dietary acts of pregnant ladies just as the impact of sociodemographic factors on supplement admissions. At any rate 10% of the ladies are probably going to start their pregnancy with chronic frailty status. MUAC estimation is a decent marker of the protein saves in a body, and a more slender arm reflects squandered fit mass, that is ailing health [9].

An investigation in Bogor area showed a poor dietary status according to MUAC estimations among PW with poor financial status [10].

Concerning timings of food admission in between dinners just scarcely any investigation members (7.3%) took food before breakfast. Most took snacks "after lunch" (60%), trailed by after supper (59%), and after breakfast (56.4%) individually. These outcomes are far superior to the investigation of Ogun State. In this high recurrence was accounted for "after breakfast" 30%. Recurrence announced for "After lunch" is 18% and for "after supper 6% [11].

In a post hoc sub-bunch examination among PPW to explore whether there are contrasts in supplement admissions of overweight+obese ladies (BMI>25 kg/m²) and ladies with ordinary BMI (18.5–25 kg/m²), we discovered factual meanings (P<0.05, as per t test or Mann-Whitney test dependent on typical/non-typical

conveyance) in four among 28 potential correlations (seven supplements, three financial quintiles+total gathering), all of which demonstrated lower consumption in the overweight+obese sub-bunch contrasted and the typical BMI sub-gathering. We are, notwithstanding, hesitant to presume that there might be a propensity among overweight+obese ladies to really burn-through less of the particular supplements including energy, yet would prefer to credit this finding to an inclination for under-revealing, particularly by overweight and stout subjects as detailed from different investigations [12-13].

In our study, out of 400 women, during pregnancy 304 were not having gestational diabetes, before pregnancy 348 women did not exercise. It was also found that out of 322 having normal range of BMI during pregnancy 36 of participants performed exercise, before pregnancy 40 performed the exercise, during pregnancy 256 did the household work, during pregnancy 42 followed the special diet.

5. CONCLUSION

It was concluded that women who visited the OPD do not exercise properly and do not take proper diet before and during pregnancy because of inadequate awareness of role of exercise and diet for pregnancy. Before, during and after pregnancy the nutritional and health status of women can be improved by awareness regarding the exercise and diet maintenance.

CONSENT

As per international standard or university standard, patients' written consent has been collected and preserved by the author(s).

ETHICAL APPROVAL

Ethical Review Committee ERC of Civil Hospital Khairpur Mirs gave the ethical approval to conduct the study.

COMPETING INTERESTS

Authors have declared that no competing interests exist.

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