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Lifestyle Disorders in Working Women -A Statistical Analysis

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Abstract

Lifestyle disorders characterize those disorders whose occurrence is primarily based on the daily habits of people and are a result of an inappropriate relationship of people with their environment. Working women suffer from various lifestyle disorders, depression or general anxiety, compared to women with lesser levels of psychological demands at work. As for that purpose they have to skip meals and go for junk food due to work pressure and deadlines. Highlighting the fact that women play vital and multiple roles, especially those who are employed, there is a need for a balance to be maintained by them both at home and workplace along with balancing between personal, professional and social requirements. All this leads to women ignoring their health. The aim of this study was to collect data of the general health problems faced by working women, which was done in form of questionnaires for observational survey study on working women in the age bracket of 21-58 years, sample size 150. The current study will help in counselling and suggesting changes in lifestyle and daily regime to minimize the harmful effects of lifestyle disorders.

Keywords

Lifestyle disorders, working women, observational study

Greentree Group

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INTRODUCTION

Lifestyle disorders characterize those disorders whose occurrence is primarily based on the daily habits of people and are result of an inappropriate relationship of people with their environment. Working women in the age bracket of 21-52 years were found to be afflicted with lifestyle disorders such as obesity, depression, chronic backache, diabetes and hypertension was observed in recent study. Females in urban India were employed; their health issues are a major concern both for society and business.

Working women suffer from various Lifestyle disorders and stress, compared to housewives. As due to work pressures and deadlines, they either have to skip regular meals or go for junk food, even factors such exposure to industrial pollutants and environmental toxins, triggering factors for it are increased work stress, changes in dietary habits, consumption of junk food,lack of exercise,[2]poor quality of sleep, sunlight exposure, poor nutrition, etc are the other culprits for the same.

STUDY RATIONALE

Today it is necessary to take this issue seriously highlighting the fact that women play vital and multiple roles, especially those who are employed. Women often ignore their health balancing between personal, professional and social life. This ignorance of healthcare can have multiple implications on her surrounding environment such as her family, workplace and social network, so keeping the view of this problem in the present era current study is planned to evaluate the adverse effects of lifestyle on general health of working women and female genital system.

AIMS& OBJECTIVES

1) To assess the various triggering factors leading Lifestyle disorders in working women.

2) To evaluate the adverse effects of lifestyle on menstruation.

METHODOLOGY

1) A literary review was done on the *StrotasDushtiLakshanas*[1]from authentic classical texts; also e-data was collected from internet.

2) A scientific questionnaire was prepared with the help of collected data and was reviewed by peers.

3) Survey Study was conducted on 275 working women irrespective of age and occupation.

4) Next, out of the 275 subjects, data of 150 women engaged in intellectual type of work was selected for study.

5) The collected data was collected and further classified in various heads & was analysed.

6) Once the analytical aspect was compiled the data presented some valuable information on the factors causing lifestyle disorders and hampering female genital system.

OBSERVATIONS

- From the prepared questionnaire 19 factors from our day-to-day lifestyle were selected for analyses other than the charts, giving symptoms which are related to lifestyle disorders and female genital system.
- The details of the study are as follows -

Out of 275 working women taken for the study, data of 180 women engaged in intellectual type of work were selected for study & out of that 150 questionnaires were selected for data analyses.

STATISTICAL ANALYSIS

Table 1 To test the association between lifestyle parameters and menstruation status (Regular/Irregular)

	Degree of Freedom	Chi-Square Value	P-Value
Time in hours	2	15.413	0.0005
Shifts	1	12.043	0.0005
AC	1	11.807	0.0006
Distance in Km	1	11.599	0.0007
Vehicle	5	6.542	0.2570
Stress	1	11.241	0.0008
Major Illness	1	11.086	0.0009
Diet	1	10.942	0.0009
Timings	1	10.809	0.0010
Nature of Diet	5	20.337	0.0011
Exercise	1	10.569	0.0012
Use in hours	2	13.418	0.0012
Sleep in hours	2	13.306	0.0013
Nature	1	10.259	0.0014
Addictions	4	17.672	0.0014

We have used Non-parametric Chi-square test to test the association between lifestyle parameters and menstrual status. From theabove table we can observe that, factors

likeDuty Hours, Shift duties, AC/Non AC, Travelling Distance, Stress, Major illness, Diet, Timing of meal, Nature of Diet, Exercise, TV/Computer Use, Sleep, Nature of Sleep and Addictions has strong association with menstruation status of female, as P-Values are less than 0.05 for above factors.

*type of vehicle -no association

Table 2 To test the association between lifestyle parameters and days of menstruation

	Degree of Freedom	Chi-Square Value	P-Value
Time in hours	10	37.869	0.0000
Shifts	5	24.185	0.0002
AC	5	25.745	0.0001
Distance in Km	5	24.508	0.0002
Vehicle	25	57.883	0.0002
Stress	5	23.837	0.0002
Major Illness	5	23.563	0.0003
Diet	5	23.319	0.0003
Timings	5	23.098	0.0003
Nature of Diet	25	56.091	0.0004
Exercise	5	22.711	0.0004
Use in hours	10	31.917	0.0004
Sleep in hours	10	31.734	0.0004
Nature	5	22.230	0.0005
Addictions	20	47.478	0.0005

We have used Non-parametric Chi-square test to test the association between lifestyle parameters and days of menstrual. From above table we can observe that, factors Duty Hours, Shift duties, AC/Non AC, Travelling Distance, type of vehicle, Stress, Major illness, Diet, Timing of meal, Nature of Diet, Exercise, TV/Computer Use, Sleep, Nature of Sleep and Addictions have strong association with days of menstruation, as P-Values are less than 0.05 for above factors.

Table 3 To test the association between lifestyle parameters and Nature of menstruation (Pain)

	Degree of Freedom	Chi-Square Value	P-Value
Time in hours	2	17.034	0.0002
Shifts	1	13.412	0.0003
AC	1	11.807	0.0006
Distance in Km	1	11.394	0.0007
Vehicle	5	20.678	0.0009
Stress	1	10.607	0.0011
Major Illness	1	10.312	0.0013
Diet	1	10.058	0.0015

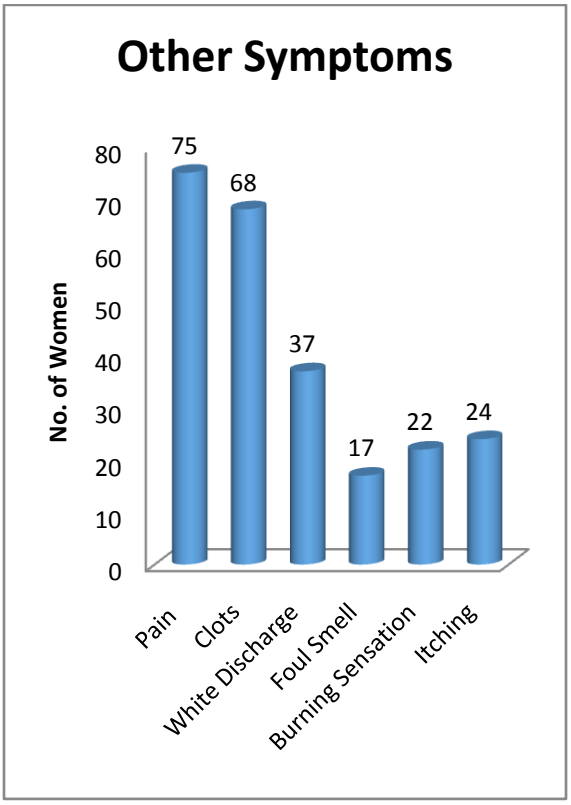
Timings	1	9.836	0.0017
Nature of Diet	5	19.019	0.0019
Exercise	1	9.459	0.0021
Use in hours	2	12.153	0.0023
Sleep in hours	2	11.990	0.0025
Nature	1	9.009	0.0027
Addictions	4	16.105	0.0029

We have used Non-parametric Chi-square test to test the association between lifestyle parameters and nature of menstruation (Pain). From above table we can observe that, factors Duty Hours, Shift duties, AC/Non AC, Travelling Distance, type of vehicle, Stress, Major illness, Diet, Timing of meal, Nature of Diet, Exercise, TV/Computer Use, Sleep, Nature of Sleep and Addictions have strong association with Nature of Menstruation (Pain), as P-Values are less than 0.05 for above factors.

Table 4 Other symptoms observed during Menstruation

Symptom	No. of Women	Percentage
Pain	75	54.3
Clots	68	49.3
White Discharge	37	26.8
Foul Smell	17	12.3
Burning Sensation	22	15.9
Itching	24	17.4

Pain during menstruation was observed as most common problem (in 75 out of 138) in working women, bleeding clots was reported by 49.3% women, 26.8% women reported the problem of white discharge, 12.3% women had problem of foul smell during Menstruation, 15.9% women have burning Sensation and 17.4% women have itching problem during Menstruations.



Graph 1 Other symptoms observed during menstruation.

Table 5 Assessment Criteria as per *StrotasDushti Lakshanas*[1]

No	Assessment Criteria as per	Yes	No

	StrotasDushtiLakshanas	Total	%	Total	%
1	Increased Breathing on Exertion	84	56	66	44
2	Loss of appetite	63	42	87	58
3	Tastelessness	33	22	117	78
4	Nausea	51	34	99	66
5	Heaviness of body	80	53.33	70	46.66
6	Laziness/lethargy	89	59.33	61	40.66
7	Body ache	98	65.33	52	34.66
8	Wrinkles/dryness	78	52	72	48
9	Hair fall	101	67.33	49	32.66
10	Skin Disease	16	10.66	134	89.33
11	Dental problems	45	30	105	70
12	Bone/joint pain	55	36.66	95	63.33
13	Skin discoloration	23	15.33	127	84.66
14	Paleness/giddiness	46	30.66	104	69.33
15	Bowel habits(Regularity)	124	82.66	26	17.33
16	Urination(Regularity)	132	88	18	12
17	Gases	58	35.33	97	64.66
18	Sweating	49	32.66	101	67.33
19	Heartburn	43	28.66	107	71.33

DISCUSSION

Increased Breathing on Exertion - 49 amongst 84 were having increase breathing on exertion in age bracketof 21- 30. 17 subjects out of 33 with age 31 – 40, whereas 17 out of 18 found similar symptoms in Age 41+. Total incidence of 55% was found.

The women who indulged in regular exercises were found to have low incidence of increase breathing on exertion which was (78) 29.48% compared to the women

leading a sedentary lifestyle with no exercise in their schedule which was (72) 84.72%.

AcharyaCharak considers age above 60 years as oldage.[3] Ayurveda considers '*Jara'*(ageing)in two ways '*kalaj'*(natural) and '*akalaj'* (premature ageing).[4]'*ManasBhavas'*like 'Chinta' which are mentioned as *'Darniyavegas.'* [5] adversely affect health leading to premature ageing.'*Vata* and *Pitta prakopa'* leads to vitiation in the body.[6,7] Further due to this physically we can see '*Vali'*(wrinkles), '*Palitya'*(grey hair), '*Khalitya'* (hairfall), '*Shukraapravartananam'* (loss of libido), '*Ojakshaya'*, etc. mentally '*Medhahani'* (loss of grasping power), '*Smritihani'* (loss of recollecting power) '*Utsahahani'*

(decreased enthusiasm), '*Nairashya'* (depression), etc. can be observed. In the current study we can see that most of the signs of ageing are observed very early that is before 30 years, that is wrinkles and hairfall.

Wrinkles - In the age group of < 30 yrs (99), 43 had dryness and wrinkles i.e., 55% compared to age > 30 yrs (51) where in nearly 77.78% wrinkles were seen.

Stress could be the triggering factor forwrinkles, so it was compared with subjects having wrinkles and it was found 81/132 i.e. nearly 88.46% showed early signs of aging.

Comparing the age and stress only 50% had no wrinkles.

Hairfall – 101 Subjects had hair fall out of 150. So, the most common complaint seen these days was analyzed and assessed with various factors. They are quoted below:

Table 6 Hairfall assessed with various factors

Factors	Total Subjects	Affected	Percentage
Stress	132	81	**61%**
No Stress	18	6	33.33%
Normal Diet	92	65	71.73%
Oily	15	9	60%
Spicy	22	9	45%
Salty	15	12	**80%**
2 - Wheeler	42	26	61%
Disturbed Sleep	63	42	**82.35%**
Disturbed Sleep with No Hair fall (49)	63	12	23%
Sound Sleep	87	55	63.21%
Sound Sleep with No Hair fall (49)	87	29	33.33%

Bowel Habits – In the Age Group of < 30 yrs (99), 18/26 had Irregular Bowel Habits, whereas 9 subjects in Age Bracket of > 30 yrs (51) faced the similar problem.

Amongst them 52 have irregular diet and with comparison it was seen 10 having Irregular Bowel Habits, and subjects having Regular Diet (98), 11 had Irregular Bowel.

The gastrointestinal tract is controlled by Enteric Nervous system, Autonomous Nervous system and Central Nervous system that interacts to establish a two – way communication between the gut and brain also called as 'Gut-Brain Axis'. These feedback circuits influence brain processes and bowel functions. Exercise enhances process of the evacuation of stool through gastrointestinal tract. But inactivity due to sedentary lifestyle, decreases the muscle tone reducing the function of abdominal and

pelvic floor musculature in evacuating stool.[8]

Irregular Menses

Table 7 Irregular Menstruation assessed with various factors.

Factors	Total Subjects	Affected	Percentage
Age < 30 years with Irregular Menses	32	24	79%
Age > 30 years with Irregular Menses	32	7	21.87%
Working in Shifts	55	13	40.62%
No Shift Duty	95	13	13.68%
Irregular Diet	52	17	32.69%
Regular Diet	98	15	15.30%
Stress	132	32	24.24%
No Stress	18	1	5.55%

Quantity (≥4 Pads/Day)

Table 8 Women quantity of more than 4 pads per day during Menstruation assessed with various factors along with percentage.

Factors	Total Subjects	Affected	Percentage
Normal Diet	77	21	27.27%
Oily, spicy food	37	11	29.72%
Working Hours > 8hrs	87	30	34.48%
Working Hours < 8hrs	87	13	14.94%
Disturbed sleep	63	12	19.04%
Working in Shifts	55	31	56.36%
No Shift Duty	95	31	32.63%
Stress	132	50	37.87 %
No Stress	18	05	27.77%

Quantity (< 2 Pads/Day)

Table 9 Women quantity of less than 2 pads per day during Menstruation assessed with various factors along with percentage.

Factors	Total Subjects	Affected	Percentage
Normal Diet	92	3	3.26%
Oily, spicy food	8	4	50%
Working Hours > 8hrs	8	6	50%
Working Hours < 8hrs	47	17	31.12%
Disturbed sleep	8	2	25%
Working in Shifts	8	2	25%
No Shift Duty	95	6	06.31%
Stress	132	49	37.12%
No Stress	18	8	44.44%

Menstrual patterns are influenced by a number of host and environmental characteristics. Factors that perturb menstruation may increase the risk factors of

reproductive disorders in women[9].Amongst the 68 subjects having clots 44 presented with dysmenorrhea. With further analysis it was found 59 amongst them had stress.

So, it was seen that the above factors, which are definitely vital points in the Lifestyle Pattern of the do affect the working women.

CONCLUSION

In this study we have observed that, factors like Duty Hours, Shift duties, AC/Non AC, Travelling Distance, type of vehicle, Stress, Major illness, Diet, Timing of meal, Nature of Diet, Exercise, TV/Computer Use, Sleep, Nature of Sleep and Addictions have strong association with Nature of Menstruation i.e., Regularity, Pain, Clots, White Discharge, Foul Smell, Burning Sensation and Itching (P-Values less than 0.05). Further we have observed that, 61% working women had mental stress. As outcome of this stress many cases of infertility, fetal growth retardation and early juvenile diseases like diabetes are seen.

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