



## Identification of Health Deviance Using WASH Toolkit among Women In Selected Urban Slum Area of Navi Mumbai

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### INTRODUCTION:

Be healthy is vital aspect of qualitative life. The deviation from sound health can be multi-factorial, like food pattern, socioeconomic status, lifestyle, diseases and so on. Women health is major concern for society due to specific factors associated with health like child birth and menstruation. According to fifth National Family Health Survey for the state of Maharashtra during 2019, the prevalence of diabetes mellitus was 12.4% among women and 13.6 % among men and hypertension among women was 23.1% and 24.4% among men<sup>1</sup>. Anemia is major health deviant among women and it's a contributing factor to other co-morbid conditions also. A study conducted in districts of Maharashtra for prevalence of anemia among women of reproductive age group at two time points of National Family Health Survey 2015 -16 and 2019-20. The results depicts the prevalence of anemia is elevated to 6.2 % in 2019-20 from 2015 -16. Out of 36 districts, 16 districts have higher prevalence that is 55 % of anemia<sup>2</sup>. A study was conducted to identify the prevalence of hypertension in Maharashtra by District level Household & Facility Survey. The results shows 25 % overall prevalence in Maharashtra. Mumbai and Satara districts have high prevalence<sup>3</sup>. The prevalence rate of thyroid is increased as per National Family Health Survey. In 2015-2016it was 2.2 % and in 2019-2021 the prevalence was 2.9 %. As per reports the thyroid disorders was less than 1% in males where as 2 % in females<sup>4</sup>. Based on the above finding it's high time to track the common health deviances from both rural and urban sectors of community. Health prevention and health promotion activities need to be implemented on war footing basis from the prevention and promotion of community health.

### OBJECTIVES:

1. To identify common health deviance among women
2. To determine association between health deviance with selected demographic variables
3. To find out correlation between identified health deviants

### MATERIALS AND METHODS

A quantitative approach was used in the study. The investigators adopted a Community cross-sectional survey design for the study. Health deviance was considered as the research variable. The women above 18 years of age were the samples of the study and the setting was Owe Camp, Kharghar. Women available during data collection and women above 18 years of age were included and women who are not resident of selected urban slum area were excluded. The sample size is calculated based on the total number of house. Survey was conducted for the first two days. The total number of houses identifies was 200, 01 women per household gives a population of 200; so sample size is 132 at 95% confidence level and 5% margin of error. The samples recruited for the study is 140. Convenient sampling method was used for data collection process.

### Instruments

The tools used in the study were demographic profile of women, Modified Short Form 36 Health Survey (SF-36) and health assessment & screening data. The demographic profile includes education, occupation, pregnancy, delivery, medical & surgical history, medication, present complaints, drinking alcohol, smoking, meal pattern & frequency, menstruation details and sleep pattern. Modified Short Form 36 Health Survey (SF-

36) have questions under following domains, general health, limitations of activities, physical health problems, emotional health problems, social activities, pain, energy & emotions, social activities and general health. Health Assessment & Screening Data includes height, weight, BMI, temperature, respiration, pulse, oxygen saturation, blood pressure, haemoglobin, thyroid stimulating hormone and random blood sugar. The Women Assessment & Screening for Health (WASH) Toolkit consists of sphygmomanometer, pulse oximeter, stethoscope, thermometer, weighing scale, inch tape, cotton swabs, gloves, surgical spirit, needle cutter, waste disposal containers, syringes, blood collection vacutainers, recording sheet and pen. The tool validity was received from Ethical Committee and experts including nurse educators, nurse administrators and statistician. The tool reliability was established by split-half method and the reliability score is 0.94.

### Data collection

The title was approved by Research Recognition Committee and Ethical Committee. Permission secured from local authorities. Patient information was distributed followed by informed consent from participants. Pilot study was conducted in samples with same characteristics and found feasible. The data was collected from 21/02/2022 to 27/02/2022. Women above 18 years of age were selected for the study. The data collection was performed in two phases: first phase was community cross sectional survey to identify the samples, followed by health survey. After survey, women in the urban slum area were screened for common health deviance and blood test were done. The parameters assessed in the tool kit were height, weight, body mass index, temperature pulse, respiration, oxygen saturation, blood pressure, haemoglobin, thyroid stimulating hormone and random blood sugar. After completion of data collection a mass health education was performed on the basis of survey to community.

### RESULTS

The sociodemographic profile majority of women belongs to the age group between 17 – 36 years 67 %, most of women have secondary education (37 %), 74.29 % women were unemployed, 75 % were married, 38.56 % monthly family income between Rs/- 3000 to 11000, most of mothers had normal delivery (55.71 %) and majority of mothers have single child (28.57 %). The health data projects that 92.86% have history of family illness, the listed illness are diabetes mellitus, hypertension, asthma and cancer. In past medical history the women experience renal calculi, lump in breast, thyroid problems etc. only 8.57 % of women had past surgical history, out of 4.31 % underwent LSCS.

#### 1. Identify common health deviance among women

The health deviance was assessed under following subdomains:

**Table: 01 Distribution of samples according to general health**

General health		f	%
In general, would you say your health is:	Excellent	29	20.7%
	Very Good	52	37.1%
	Good	52	37.1%
	Fair	6	4.3%
	Poor	1	.7%
Compared to one year ago, how would you rate your health in general now	Much better now than one year ago	18	12.9%
	Somewhat better now than one year ago	35	25.0%
	About the same	73	52.1%
	Somewhat worse now than one year ago	14	10.0%

The above table explains about general health, almost 37.1 % women express their general health is good and very good.

**Table: 02 Distribution of samples according to limitation of activities**

Limitation of activities		Yes, Limited a Lot	Yes, Limited a Little	No, Not Limited at all
Vigorous activities, such as lifting heavy objects, participating in strenuous household work	f	36	67	37
	%	25.7%	47.9%	26.4%
Moderate activities, such as moving a table, brooming, mopping	f	40	60	40
	%	28.6%	42.9%	28.6%
Lifting or carrying groceries	f	31	59	50

Climbing several flights of stairs	%	22.1%	42.1%	35.7%
	<i>f</i>	33	66	41
Climbing one flight of stairs	%	23.6%	47.1%	29.3%
	<i>f</i>	30	65	45
Bending, kneeling, or stooping	%	21.4%	46.4%	32.1%
	<i>f</i>	29	47	64
Walking more than a mile	%	20.7%	33.6%	45.7%
	<i>f</i>	38	52	50
Walking less than a mile	%	27.1%	37.1%	35.7%
	<i>f</i>	22	58	60
Walking within or around the house	%	15.7%	41.4%	42.9%
	<i>f</i>	48	35	57
Bathing or dressing yourself	%	34.3%	25.0%	40.7%
	<i>f</i>	53	35	52
	%	37.9%	25.0%	37.1%

From the above table it's clear that vigorous activities and household chores are limited a little in majority of women. Self-health activities are not at all limited in majority of women.

**Table: 03 Distribution of samples according to physical health problems**

<b>Physical health problems</b>		<b>No</b>	<b>Yes</b>
Cut down the amount of time you spent on work or other activities	<i>f</i>	86	54
	%	61.4%	38.6%
Accomplished less than you would like	<i>f</i>	97	43
	%	69.3%	30.7%
Were limited in the kind of work or other activities	<i>f</i>	86	54
	%	61.4%	38.6%
Had difficulty performing the work or other activities	<i>f</i>	99	41
	%	70.7%	29.3%

Table No. 03 depicts that most of women that is more than 60 % of women is not experiencing any physical health issues.

**Table: 04 Distribution of samples according to emotional health problems**

<b>Emotional health problems</b>		<b>No</b>	<b>Yes</b>
Cut down the amount of time you spent on work or other activities	<i>f</i>	96	44
	%	68.6%	31.4%
Accomplished less than you would like	<i>f</i>	97	43
	%	69.3%	30.7%
Didn't do work or other activities as carefully as usual	<i>f</i>	104	36
	%	74.3%	25.7%

From above table depicts that most of women that is more than 69 % of women is not experiencing any emotional health issues.

**Table: 05 Distribution of samples according to social activities**

<b>Social activities</b>		<b>Not at all</b>	<b>Slightly</b>	<b>Moderately</b>	<b>Severe</b>	<b>Very Severe</b>
Emotional problems interfered with your normal social activities with family, friends, neighbours, or groups	<i>f</i>	48	64	23	3	2
	%	34.3%	45.7%	16.4%	2.1%	1.4%

Majority of women experience slight emotional problems with normal social activities.

**Table: 06 Distribution of samples according to pain**

<b>Pain</b>		<b>f</b>	<b>%</b>
How much bodily pain have you had during the past 4 weeks?	None	38	27.1%
	Very Mild	39	27.9%
	Mild	37	26.4%
	Moderate	25	17.9%
	Severe	1	0.7%
	Very Severe	0	0.0%
During the past 4 weeks, how much did pain interfere with your normal work (including both work outside the home and housework)?	Not at all	39	27.9%
	A little bit	48	34.3%
	Moderately	31	22.1%
	Quite a bit	19	13.6%
	Extremely	3	2.1%

The above table represents pain among women. They experience very mild (27.9%) and mild pain (26.4%).

**Table: 07 Distribution of samples according to energy and emotions**

<b>Energy and emotions</b>		<b>All of the time</b>	<b>Most of the time</b>	<b>A good Bit of the Time</b>	<b>Some of the time</b>	<b>A little bit of the time</b>	<b>None of the Time</b>
Did you feel full of liveliness	<i>f</i>	17	67	35	19	0	2
	%	12.1%	47.9%	25.0%	13.6%	0.0%	1.4%
Have you been a very nervous person	<i>f</i>	8	32	40	40	15	5
	%	5.7%	22.9%	28.6%	28.6%	10.7%	3.6%
Have you felt so down during nervousness that nothing could cheer you up	<i>f</i>	5	26	22	43	27	17
	%	3.6%	18.6%	15.7%	30.7%	19.3%	12.1%
Have you felt calm and peaceful	<i>f</i>	23	46	9	32	18	12
	%	16.4%	32.9%	6.4%	22.9%	12.9%	8.6%
Did you have a lot of energy?	<i>f</i>	13	71	18	24	13	1
	%	9.3%	50.7%	12.9%	17.1%	9.3%	.7%
Have you felt downhearted and blue	<i>f</i>	5	37	14	45	26	13
	%	3.6%	26.4%	10.0%	32.1%	18.6%	9.3%
Did you feel worn out?	<i>f</i>	8	23	14	44	36	15
	%	5.7%	16.4%	10.0%	31.4%	25.7%	10.7%
Have you been a happy person?	<i>f</i>	21	59	15	31	13	1
	%	15.0%	42.1%	10.7%	22.1%	9.3%	.7%
Did you feel tired?	<i>f</i>	9	40	18	40	27	6
	%	6.4%	28.6%	12.9%	28.6%	19.3%	4.3%

The above table explains the energy and emotions among women. Most of them feel liveliness, calm & peaceful, lot of energy and happy most of the time. Most of them feel nervous a little bit. Most the feel nothing to cheer up during nervousness. Sometime most women experience worn out and tiredness.

88.57 % women height is more than 145 cm. 22 % of women's were under weight, 24.29 % women were obese and 9.29 % of women were overweight. Temperature, pulse respiration and oxygen saturation were normal in most of the women. 85.07 % women were anemic, 8.21 %, were suffering from hypothyroidism, 7.46 % were suffering from hyperthyroidism 26.12 % were diagnosed as hyperglycemia, 25.71 % were having hypertension.

## 2. Association between health deviances with selected demographic variables

- General health, vigorous activities, bending, kneeling & stooping, walking less than a mile, feeling tiredness, healthy feeling, expectation of worsen health and age have significant association since p value is less than 0.05.
- General health, vigorous activities, bending, kneeling & stooping, lifting or carrying groceries, climbing several flights of stairs, walking more than a mile, walking less than a mile, bathing or dressing yourself, accomplished less than you would like, didn't do work or other activities as carefully as usual, emotional problems interfered with your normal social activities, pain interfere with your normal work, happiness, expectation of worsen health, excellent health, random blood sugar and education have significant association since p value is less than 0.05.

## 3. Correlation between identified health deviants

- Physical health problems, pain had strong negative correlation. Emotional health problems had weak negative correlation, emotions & energy had weak positive correlation with limitations of activities.
- Limitations of activities had strong negative correlation, pain and general health had weak negative correlation, emotional health had weak positive correlation with physical health problems.
- Limitations of activities, emotions & energy, general health had weak negative correlation, physical health problems, pain had weak positive correlation with emotional health problems.
- Limitations of activities, physical health problems had weak negative correlation, emotional health problems, emotions & energy, general health had weak positive correlation with pain.
- Physical health problems, emotional health problems had weak negative correlation, limitations of activities, pain and general health had weak positive correlation with energy and emotions.
- Physical health problems, emotional health problems had weak negative correlation, limitations of activities, pain and energy and emotions had weak positive correlation with general health.
- Since r value is 0.99, haemoglobin & thyroid stimulating hormone, haemoglobin & random blood sugar, thyroid stimulating hormone & random blood sugar, body mass index & haemoglobin and body mass index & thyroid stimulating hormone had strong positive correlation

### **DISCUSSION:**

This study sought to identify health deviance among women in selected urban slum area with the use of Women Assessment & Screening for Health (WASH) toolkit. Further the current study results indicated that majority of women belonged to the age group between 17 – 36 years, 75 % women's were married, 67 % of women had secondary education (37 %) which was similar to a community-based, cluster-randomized controlled trial conducted on 2227 rural women of West Bengal, India that had women belonging to 16-63 years; with lower educational levels<sup>5</sup>.

Present study reveals that General health activities among women with demographic characteristics age, education have significant association and other activities as carefully as usual, emotional problems random blood sugar and have significant association with health deviance since p value is less than 0.05. A study on Social determinants of health in rural Indian women aged 18-45 years & effects on intervention participation a cross sectional study in Karnataka was conducted through survey to understand the beliefs and characteristics of women<sup>6</sup>. Study results showed association between determinants; education level, number of children, type of family were the most pressing determinants of health preventing the women from maximizing their health outcomes<sup>7</sup>.

### **Limitations**

- Study limited to Navi Mumbai only
- Only women were included in study

### **Conclusion**

The study was selected to identify the health deviances in women. The setting chosen was urban community. The survey given immense information to investigators about the detailed demographic profile, health history, in-depth details about the physical, emotional, social dimensions of health and few health parameters by blood investigations. Women were identified with certain health deviances like anemia, underweight, obesity, hypothyroidism, hyperthyroidism, hyperglycemia and hypertension. The need of providing extensive education were emerged from the survey and blood investigation results. A mass health education were planned and provided to whole community irrespective of population. The health education activity was highly effective for the community.

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### **Ethical consideration**

The Institutional Ethics Committee of BVDUCON, Navi Mumbai, Maharashtra, India had reviewed the research project and approved undertaking the study, their letter no. BV(DU)/CON/Navi Mumbai/EC/01/2022 dated on 21<sup>st</sup> February 2022.

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### **Conflicts of interest**

There are no conflicts of interest in this study.

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