



Morbidities of Patients Attending Free Health Camp in Rural Area of Amravati District of Maharashtra, India

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ABSTRACT

Background: Free health camp was conducted to create awareness of general health among the rural people. It also provides general health care services including promotive, preventive and curative services.

Objective: The main objective of this study was to assess the morbidities of peoples attending the free health camp in morshi taluka.

Material and methods: The community-based health camp was organized in April 2017 to June 2017 to address health problems of the people of morshi taluka.

Results: A total of 325 patients visited the health camp and 52% of them were males. It was observed that the highest number of cases had diseases of Musculoskeletal and Connective tissue 38.5%, diseases of circulatory system 15.1%, mental and behavior disorders 13.5%, nutritional anaemia 8.6%, diseases of nervous system 4.6%, diseases of digestive system 4.3%, diseases of genitourinary system 4.3%, diseases of thyroid gland 3.6%, diseases of respiratory system 3.6%, diseases of ear and mastoid process and diseases of skin and subcutaneous tissue 0.7%.

Conclusion: The free health camp in primary health centre of Morshi taluka showed that the diseases of musculoskeletal and connective tissues were the most common diseases in the rural community.

Key Words: Health Camp, musculoskeletal disorder, rural area, farmer, Morbidity, ICD-10.

INTRODUCTION

"Jai Jawan, Jai Kisan" - Lal Bahadur Shastri This slogan of a visionary prime minister had lost its potential over the time. After the independence, according to Gandhiji's vision of Gram-Swaraj, villages and specially farmers were to be the main focus of any development plan of India. As years passed, by agriculture as an industry lost its importance for policy makers of India. This over the time caused severe distress among the rural peoples specially farmers leading to recent dramatic rise in suicides among farmer community.

The WHO defined Health as a state of complete physical, mental and social well-being and not merely an absence of disease or infirmity but re-

cently it has been amplified to include the ability to lead a socially and economically productive life too.¹ India's population is experiencing a demographic transition to older age groups and an epidemiological transition from communicable disease to non-communicable diseases.² The health services through health camp include preventive, promotive and curative approach to meet health needs of rural needy population both in quantity as well as in quality.³ camp not only conducts curative services and awareness programs but also provides screening programs for various diseases and referral to higher centre for further management. Health camps helps to improve health by counseling on nutritional, communicable and non communicable diseases and raising awareness

programs at community level to encourage health utilization at health institutions; referral for complicated cases addressing and integrating health issues of rural people especially farmers in the general health programme. Free health ⁴ This free health camp was conducted in five primary health centers in Morshi taluka with the aim to bring affordable healthcare and free health information to the community and identify the common healthy problems of the community in order to devise ways of addressing them, in partnership with Government District health Authorities. Specifically, the medical camps seek to: Provide health services to the community; provide both preventive and curative treatment for common conditions in the community; refer those who require specialized treatment to the hospital of our medical college. Free health camp is cost containment that provided less expensive primary care alternative than private health facility ⁵ The objective of this study was to assess the morbidities among the rural peoples visiting the free health camp in morshi taluka of Amravati district.

OBJECTIVES

The study was conducted with an objective to assess the morbidities among the farmers visiting the free health camp in morshi taluka of Amravati district and to know the factors responsible for morbidities.

MATERIALS AND METHODS

The community-based health camps were organized at primary health centre level from April 2017 to June 2017 to address medical problems of the people in rural area morshi taluka. All the patients attending the free camp were taken as case. A team of 10 members comprising of 1 Assistant Professors of Community Medicine, 1 Senior resident from Medicine department, Skin department, Psychiatry department, and 1 Medical officer of rural health training centre, 1 Lady medical officer from rural health and training centre, 4 intern and 1 Medical Social Worker conducted the health camps. The registration was done for all patients, The patient consultation was provided with the free medicine distribution. The patients who were required referrals were referred to the Institution. Patient details, diagnosis and treatment provided by physicians from respective departments were documented in the morbidity register. Information like age, gender, residence and principal diagnosis were extracted from the registers using a data extraction sheet. Two doctors independently coded the diagnosis as per International Classification of Disease (ICD) 10 classification of 2010.⁶

Necessary written permissions were taken from the District health officer and taluka medical officer of morshi taluka for conducting the study. Data were entered and analyzed with SPSS version 16.0 (Chicago, IL, USA). Wherever applicable, proportions and mean (SD) were calculated. Chi-square test was used a test of significance. The p value of <0.05 was considered significant.

RESULTS

A total of 304 patients were included in the study. Out of them 54.6% were male and 45.4% were female. The data showed that, Majority of the respondent (23%) were in age group 36-45 years followed by 56-65 years (19.4%). 73% belong to Hindu religion, 12.5% were Muslim and 14.5% were belongs to Buddhist religion. 35.2% educated upto primary level, 23.4% educated upto middle, 16.8% were educated upto secondary, 8.2% were educated upto graduation, while 16.4% were found to be illiterate. It was found that there was no significant statistical difference in religion and educational status ($p>0.05$) (Table 1) 34.5% were tobacco chewer, 16.8% were pan eaters, 9.9% had habits of cigarette and bidi smokers, 6.2% were alcoholic and 8.9% were combination of above. There was statistical highly significant difference between habits and sex of the respondent ($p<0.001$). 33.2% were vegetarian and 66.8% were mixed diet pattern. 42.1% were belong to nuclear family, 48.7% were belongs to joint family and 9.2% were belongs to three generation family. It was found that no association between diet patterns, family type and sex of the respondent. ($p>0.05$) (Table 2)

Table 1: Sociodemographic characteristics of Study participant

	Male n=166	Female n=138	Total n= 304	p
Age (Years)				
15-25	19	20	39	<0.001
26-35	12	30	42	
36-45	36	34	70	
46-55	34	16	50	
56-65	30	29	59	
above 65	35	9	44	
Religion				
Hindu	124	98	222	
Muslim	20	18	38	
Buddhist	22	22	44	
Educational Status				p>0.05
illiterate	26	24	50	
primary	56	51	107	
middle	36	35	71	
secondary	28	23	51	
college	20	5	25	
above				

Table 2: Distribution of participants for habits, diet pattern and other variables

	Male n=166	Female n =138	Total n =304	p
Habits				
Tobacco	70	35	105	P<0.001
Smoking	21	9	30	
Pan	20	31	51	
Alcohol	13	6	19	
Combination	18	9	27	
Not any	24	48	72	
Diet pattern				
Vegetarian	52	49	101	p>0.05
mixed	114	89	203	
Family type				
Nuclear	69	59	128	p>0.05
Joint	82	66	148	
Three generation	15	13	28	

Table 3. - Morbidity profile of patients who attended Health Camp on the basis of (ICD-10) classification (n =304)

ICD-10	Freq (%)
D50-D53(Nutritional anaemia)	26 (8.6)
E00-E99((Diseases of thyroid gland)	11 (3.6)
F00-F99(Mental and behavior disorders)	41 (13.5)
G00-G99(Diseases of nervous system)	14 (4.6)
H25-H95(Diseases of Ear and Mastoid process)	8 (2.6)
I00-I99(Diseases of Circulatory system)	46 (15.1)
J00-J99 (Diseases of Respiratory system)	11 (3.6)
K00-K99 (diseases of digestive system)	13 (4.3)
L00-L99((Diseases of skin and subcutaneous tissue))	2 (0.7)
M00-M99 (Diseases of Musculoskeletal and Connective tissue	117 (38.5)
N00-N99((Diseases of genitourinary system)	13 (4.3)

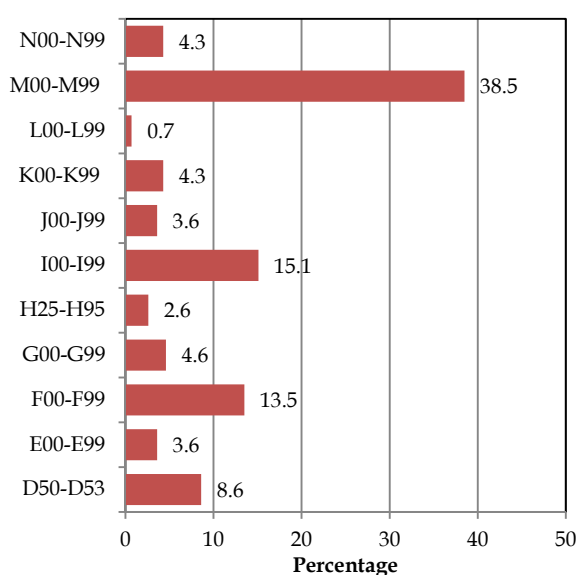


Fig 1- Morbidity profile of patients who attended Health Camp on the basis of (ICD-10) classification (n =304)

As per the ICD 10 diagnosis classification, the highest number of cases had diseases of Musculoskeletal and Connective tissue 38.5%, followed by the diseases of circulatory system 15.1%, mental and behavior disorders 13.5%, nutritional anaemia 8.6%,diseases of nervous system 4.6%, diseases of digestive system 4.3%, diseases of genitourinary system 4.3%,diseases of thyroid gland 3.6%, diseases of respiratory system 3.6%,diseases of ear and mastoid process and diseases of skin and subcutaneous tissue 0.7%. (Table3 & Fig 1). The musculoskeletal and connective tissue disorders were found more among the female than male (45.7% & 32.5%). Also the nutritional anemia was found more among the female than male (15.9% & 2.4%) However the diseases of Circulatory system was found more among male than female (16.9% & 13%) and Mental and behavior disorders are more among male than female(18.7% & 7.2%). Table 4 & Fig 2)

DISCUSSION

Our study outlines the spectrum of health problems that presented to one-day health camp at Morshi taluka in 2017. The results of the present study showed that commonly diagnosed diseases were diseases of Musculoskeletal and Connective tissue 38.5%, followed by diseases of circulatory system 15.1%, mental and behavior disorders 13.5%, nutritional anaemia 8.6%,diseases of nervous system 4.6%, diseases of digestive system 4.3%, diseases of genitourinary system 4.3%,diseases of thyroid gland 3.6%, diseases of respiratory system 3.6%,diseases of ear and mastoid process and diseases of skin and subcutaneous tissue 0.7%.

Similar finding found in the study conducted by B. Venkatasshivareddy et al .⁷ study found that, the musculoskeletal disorders were the most common (26.6%), followed by the respiratory disorders (17.2%), eye disorders (14.2%), infections and parasitic disorders (9.9%) and genitourinary disorders (7.3%).

The study conducted in primary health care clinics in Nepal and Finland also reported musculoskeletal diseases as the common diagnoses.^{8,9}. However, other studies conducted in primary health centre, India, Pakistan and Saudi Arabia found skin disorders and acute respiratory tract infections as the most common illness. Eye disorders accounted for 14.2% in the present study, higher than the study conducted in primary health set-up of Kanpur district (4.9%).^{10, 11} The major reason for this difference could be the different study setting and access to the health services.

However the study conducted by RB Rayamajhi¹ et al ¹² on patients attending free health camp in

Table 4.-Sex wise distribution of health problems

ICD-10	Male	Female	Total
D50-D53(Nutritional anaemia)	4(2.4)	22(15.9)	26(8.6)
E00-E99((Diseases of thyroid gland))	7(4.2)	4(2.9)	11(3.6)
F00-F99(Mental and behavior disorders)	31(18.7)	10(7.2)	41(13.5)
G00-G99(Diseases of nervous system)	11(6.6)	3(2.2)	14(4.6)
H25-H95(Diseases of Ear and Mastoid process)	6(3.6)	2(1.4)	8(2.6)
I00-I99(Diseases of Circulatory system)	28(16.9)	18(13)	46(15.1)
J00-J99 (Diseases of Respiratory system)	6(3.6)	5(3.6)	11(3.6)
K00-K99 (diseases of digestive system)	7(4.2)	6(4.3)	13(4.3)
L00-L99((Diseases of skin and subcutaneous tissue))	2(1.2)	0(0)	2(0.7)
M00-M99 (Diseases of Musculoskeletal and Connective tissue	54(32.5)	63(45.7)	117(38.5)
N00-N99((Diseases of genitourinary system)	9(5.4)	4(2.9)	13(4.3)
Total	166	138	304

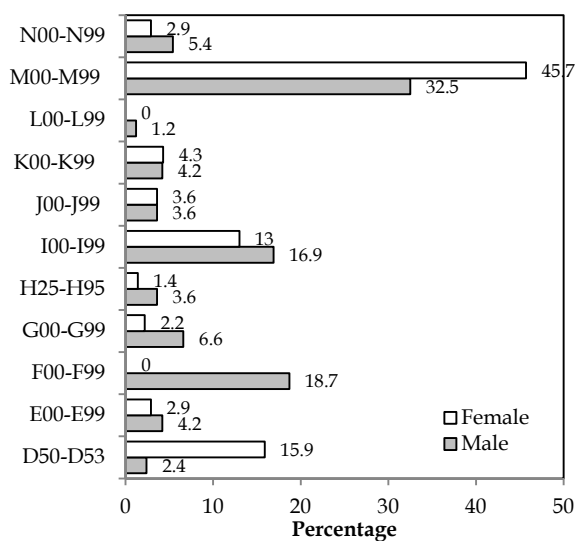


Fig 2: Sex wise distribution of health problems on the basis of (ICD-10) classification

sankhejung of Ilam district, Nepal, , found that the musculoskeletal diseases are the second most common morbidity (24.3%) while the highest number of cases had diseases of digestive system (25.1%) followed by genitourinary (13.3%) respectively. Similarly, the patients had suffered from diseases of respiratory system (12.8%), skin, subcutaneous tissue (9.5%), nervous system (5.8%), diseases of ear and mastoid process (5.5%), pregnancy, childbirth and puerperium (2.8%) and circulatory system (1%).

Musculoskeletal conditions are prevalent and their impact is pervasive. They are the most common cause of severe long term pain and physical disability, and they affect hundreds of millions of people around the world. Pain is the most prominent symptom in most people with arthritis.¹³ and was the most important determinant of disability in patients with osteoarthritis.¹⁴ The prevalence of osteoarthritis increased indefinitely with age because the condition was not reversible. Men are affected more often than women among those aged less than 45 years whereas women are affected

more frequently among those aged more than 55 years.¹⁵Worldwide estimates are that 9.6% of men and 18.0% of women aged more than or equal to 60 years have symptomatic osteoarthritis.¹⁶

The present study was only a one-day health camp in morshi taluka and hence it cannot be generalized to the whole of the district. Nevertheless, it gives insight to the usefulness of health camp in rural area. The further research needs to be studied with multiple talukas in future. In addition, the sample size was small. Though the morbidity profile was stratified by age and gender, it was not possible to classify on socioeconomic structure. Since treating physicians sometimes recorded symptoms rather than a diagnosis, misclassification could have occurred during coding.

CONCLUSION

The free health camp in rural area of Morshi taluka showed that the diseases of musculoskeletal and connective tissues were the most common diseases in the rural area. Similarly other diseases include, diseases of circulatory system mental and behavior disorders , nutritional anaemia ,diseases of nervous system , diseases of digestive system , diseases of genitourinary system ,diseases of thyroid gland , diseases of respiratory system ,diseases of ear and mastoid process and diseases of skin and subcutaneous tissue.

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