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Research Article

SYMPTOMATOLOGY OF FEMALE PATIENTS ATTENDING MOBILE MEDICAL CLINICS IN A RURAL BLOCK IN TAMILNADU

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ABSTRACT

Objectives: The objectives of the study were to find out the prevalence of "symptoms not elsewhere classified" under the International Classification of Diseases, Tenth Revision, Clinical Modification among the female patients attending mobile medical clinics.

Methods: A cross-sectional study was carried out among 7,124 female patients who attended weekly mobile medical clinics in a rural block in Tamil Nadu. Sociodemographic variables, symptomatology, patient history, and clinical examination details were collected using a pre-tested structured questionnaire.

Results: The five common symptoms affecting the study population were myalgia (18.3%), nasal congestion (13.6%), headache (13.1%), lumbar pain (12.5%), and knee pain (9.3%). The systems commonly affected among the female patients were in the order of general symptoms and signs (R50-R69), circulatory and respiratory systems (R00-R09), and Nervous and Musculoskeletal Systems (R25-R29). In the age group of 10–19 years and 20–39 years, the most common symptom was headache (25.2% and 18.8%, respectively). In the age group of 40–59 years and 60 years and above, it was myalgia (24.2% and 32.3%, respectively).

Conclusion: As pain being most common symptoms, an appropriate strategy and guidelines have to be developed to manage the problem of pain at primary care level.

Keywords: Symptomatology, Females, Medical clinics, Rural.

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INTRODUCTION

Globally, of all the patients present with symptoms, only a small proportion (15%) of the patients present with identifiable organic causes. Remaining 10% of patients present with psychological causes and 75% with unknown causes [1]. Long-term medical conditions are imposing an increasing burden on health-care systems [2]. In India, the majority of the population seeks health care at the Primary Health Centers, and most of these symptoms are managed by paramedical staffs. The study of the nature of the symptoms and their clustering occurring at community level helps us to manage these symptoms at primary care level. Knowledge on the epidemiology of symptoms at primary care level can contribute to wider improvements in health and health-care services, through a better understanding of disease etiology, use of health care services and the role of different health-care interventions. At the community level, we need to know the magnitude of the symptoms and its distribution based on age and sex. Studies have repeatedly shown that most symptoms experienced in the community are managed without seeking proper health care [3]. Elderly patients commonly have multiple pathologies which may lead to poly-pharmacy and can alter the pharmacokinetics and pharmacodynamics, which leads to adverse drug reactions from inappropriate medication [4]. Thus, a population-based approach is needed for better understanding of the frequency, pattern, and management of the presenting symptoms at primary care level. However, not many studies have been done at the community level to study the morbidities among women. This study was done to find out the prevalence of "symptoms not elsewhere classified" under The International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) among the female patients attending mobile medical clinics.

METHODS

A cross-sectional study was conducted among the female patients who had participated in our weekly medical clinics conducted in villages of Kattankulathur block, Kancheepuram district, Tamil Nadu, for a period of 1 year from June 2014 to May 2015. All females who have attended our medical clinics were included in the study. The physical symptoms for which the patients were seeking medical care were classified under the 2016/17 ICD-10-CM Diagnosis Codes R00-R99 - Symptoms, signs and abnormal clinical and laboratory findings, not elsewhere classified. The study was approved by the Institutional Ethics Committee. Data were entered into Microsoft Excel spreadsheets and analyzed using standard statistical software packages. Descriptive data were presented as simple proportions. The Chi-square test was used for analyzes of categorical variables.

RESULTS

This study was undertaken to find out the prevalence of symptoms findings, not elsewhere classified under the ICD-10-CM classification among the female patients attending our mobile medical clinic. This classification was used because more specific diagnosis could not be made and point, perhaps equal to two or more diseases or two or more systems of the body at the mobile clinic. Their causes could not be determined and cases referred to a tertiary care hospital for investigation or treatment before the diagnosis was made, and also cases were included in which a more precise diagnosis was not available for any other reason.

A total of 7,124 female patients attended our mobile medical clinics. The mean age±standard deviation of the study participants was 46.4±1.87. Among them, 11.4% (811/7124) belonged to children of

0–9 years, 9.6% (683/7124) belonged to adolescents of 10–19 years, 30.8% (2197/7124) belonged to young adults of 20–39 years, 32.1% (2290/7124) belonged to middle age of 40–59 years, and 15.9% (1143/7124) belonged to a geriatric group of 60 years and above. All the study subjects reported one or more symptoms based on which they were classified.

Table 1 depicts the distribution of the symptoms of cardiovascular and respiratory systems. Among them, nasal congestion (13.6%) is the most common symptom reported among the study subjects. In children, nasal congestion (41.3%) and cough (13.7%) were more common symptoms compared to other symptoms and another age group. This was statistically significant for both symptoms (p<0.001). Throat pain was more common (5.5%) in adolescents compared to other age groups, and it was statically significant (p<0.001). The chest pain was most commonly reported symptom in young adults compared to other age groups, and it was statistically significant (p=0.02). Dyspnea (4.7%) and hypertension (1.3%) were more commonly reported in the geriatric age group, compared to other age groups and it was statistically significant (p<0.001). The proportion of females with symptoms of the respiratory system was high in children with 57.2% compared to other age group, and this was found to be statistically significant (p<0.001).

Table 2 shows the prevalence of symptoms involving the digestive system and abdomen among the female patients attending the mobile clinic. The most common symptom of the digestive system was an abdominal pain (7.8%) followed by epigastric pain (4.5%). Vomiting (0.8%) and diarrhea (0.5%) were more common in children compared to another age group, and it was statistically significant for vomiting (p=0.003). More of abdominal pain (17.7%) and dental caries (3.5%) were reported in adolescent age group compared to another age group, and it was statistically significant (p<0.001). The proportion of lower abdominal pain was more (1%) in the middle age group compared to other age groups, and it was statistically significant. Epigastric pain (5.8%) was more common young adult age group compared to another age group, and it was statically significant (p<0.001). Overall, the symptoms of digestive system and abdomen were more common

Table 1: Symptoms and signs involving the circulatory and respiratory systems among the study subjects (R00-R09)

Symptoms	0–9 years n=811 (11.4)	10–19 years n=683 (9.6)	20–39 years n=2197 (30.8)	40–59 years n=2290 (32.1)	≥60 years n=1143 (15.9)	Total n=7124	χ^2, df and p value
Nasal congestion	335 (41.3)	121 (17.7)	289 (13.2)	154 (6.7)	68 (5.9)	967 (13.6)	χ^2=690, df=4 p<0.001*
Cough	111 (13.7)	50 (7.3)	141 (6.4)	117 (5.1)	68 (5.9)	487 (6.9)	χ^2=72.8, df=4 p<0.001*
Throat pain	14 (1.7)	22 (3.2)	120 (5.5)	80 (3.5)	16 (1.4)	252 (3.6)	χ^2=42.7, df=4 p<0.001*
Dyspnea	4 (0.5)	9 (1.1)	55 (2.5)	69 (3.0)	54 (4.7)	191 (2.7))	χ^2=39.3, df=4 p<0.001*
Chest pain	2 (0.2)	5 (0.7)	35 (1.6)	36 (1.6)	16 (1.4)	94 (1.3)	χ^2=11.4, df=4 p=0.022*
Hypertension	0	0	2 (0.1)	10 (0.4)	15 (1.3)	27 (0.4)	χ^2=37.1, df=4 p<0.001*
Palpitations	0	1 (0.1)	6 (0.3)	4 (0.2)	1 (0.1)	12 (0.2)	χ^2=3.27, df=4 p=0.514
Total	466 (57.4)	208 (30.5)	648 (29.5)	470 (20.6)	238 (21.7)	2030 (27.1)	χ^2=441, df=4 p<0.001*

Figures in parenthesis indicate percentage; χ^2 value, df-degrees of freedom, *Significant as *P*<0.05 using Chi-square test

Table 2: Symptoms and signs involving the digestive system and abdomen among the study subjects (R10-R19)

Symptoms	0–9 years n=811 (11.4)	10–19 years n=683 (9.6)	20–39 years n=2197 (30.8)	40–59 years n=2290 (32.1)	≥60 years n=1143 (15.9)	Total n=7124	χ^2, df and p value
Generalized abdominal pain	58 (7.2)	121 (17.7)	182 (8.3)	138 (6.0)	60 (5.2)	559 (7.8)	χ^2=114, df=4 p=0.001*
Epigastric pain	1 (0.1)	20 (2.9)	107 (4.9)	132 (5.8)	52 (4.5)	312 (4.4)	χ^2=50.2, df=4 p<0.001*
Dental caries	23 (2.8)	24 (3.5)	9 (0.4)	7 (0.3)	0	63 (0.9)	χ^2=114, df=4 p<0.001*
Lower abdominal pain	0	4 (0.6)	22 (1.0)	11 (0.5)	1 (0.1)	38 (0.5)	χ^2=17.9, df=4 p=0.001*
Vomiting	6 (0.8)	1 (0.1)	18 (0.8)	3 (0.1)	3 (0.3)	31 (0.4)	χ^2=16.2, df=4 p=0.003*
Constipation	1 (0.1)	1 (0.1)	5 (0.2)	11 (0.5)	2 (0.2)	20 (0.3)	χ^2=5.1, df=4 p=0.278
Diarrhea	4 (0.5)	3 (0.4)	3 (0.1)	2 (0.1)	4 (0.3)	16 (0.2)	χ^2=7.5, df=4 p=0.112
Mouth ulcer	0	0	6 (0.3)	7 (0.3)	2 (0.2)	15 (0.2)	χ^2=4.6, df=4 p=0.327
Indigestion	0	0	3 (0.1)	3 (0.1)	2 (0.2)	8 (0.1)	χ^2=2.2, df=4 p=0.687
Malena	0	0	3 (0.1)	0	0	3 (0.05)	χ^2=6.7, df=4 p=0.151
Total	93 (11.5)	174 (25.5)	358 (16.3)	314 (13.7)	126 (11.0)	1065 (14.9)	χ^2=87, df=4 p<0.001*

Figures in parenthesis indicate percentage; χ^2 value, df-degrees of freedom, *Significant as *P*<0.05 using Chi-square test

(25.5%) in young adults compared to another age group, and it was found to be statistically significant (p<0.001).

Table 3 shows symptoms and signs involving the skin and subcutaneous tissue among female subjects. Common symptoms being rash and other non-specific skin eruption (1.5%) followed by itching any site (1.4%). The prevalence of rash and other non-specific skin eruption was more among children and adolescents compared to other age group and itching any site was more among elderly above the age of 60 years. Acne was reported only among the adolescent (1.5%).

Table 4 depicts symptoms and signs involving the nervous and musculoskeletal systems among females. The common symptom being myalgia (18.3%) followed by low back pain (16.9%) and knee pain (9.3%). As the age increases, the prevalence of myalgia, knee pain, hip pain, and leg pain also increases and it was found statistically significant. About 32.3%, 15.4%, 1.8%, and 6.9% of the elderly above the age of 60 years reported with symptoms of myalgia, knee pain, hip pain, and leg pain, respectively. Overall, 95.6% of the women in the age group of 4059 years and 90.6% of women in the age group of above 60 years had symptoms of nervous and musculoskeletal symptoms.

Table 3: Symptoms and signs involving the skin and subcutaneous tissue among the study subjects (R20-R23)

Symptoms	0–9 years n=811 (11.4)	10–19 years n=683 (9.6)	20–39 years n=2197 (30.8)	40–59 years n=2290 (32.1)	≥60 years n=1143 (15.9)	Total n=7124	χ^2, df and *P* value
Rash and other non-specific skin eruption	27 (3.3)	20 (2.9)	34 (1.5)	21 (0.9)	7 (0.6)	109 (1.5)	χ^2=38.4, df=4 p<0.001*
Itching any site	14 (1.7)	10 (1.5)	26 (1.2)	30 (1.4)	24 (2.0)	104 (1.4)	χ^2=5.2, df=4 p=0.270
Numbness	1 (0.1)	0	9 (0.4)	6 (0.3)	3 (0.3)	19 (0.2)	χ^2=4.1, df=4 p=0.387
Pallor	0	0	7 (0.3)	4 (0.2)	2 (0.2)	13 (0.2)	χ^2=4.9, df=4 p=0.290
Acne	0	10 (1.5)	0	0	0	10 (0.1)	χ^2=91.4, df=4 p<0.001*
Allergy	0	1 (0.1)	5 (0.2)	1 (0.05)	0	7 (0.1)	χ^2=6.5, df=4 p=0.163
Swelling lower limb	1 (0.1)	0	1 (0.05)	2 (0.1)	0	4 (0.05)	χ^2=2.1, df=4 p=0.714
Abscess	0	0	2 (0.1)	0	0	2 (0.02)	χ^2=76.1, df=4 p<0.001*
Total	43 (5.3)	41 (6.0)	84 (3.8)	64 (2.8)	36 (3.1)	268 (4.5)	χ^2=21.9, df=4 p<0.001*

Figures in parenthesis indicate percentage; χ^2 value, df-degrees of freedom, *Significant at *P*<0.05 using Chi-square test

Table 4: Symptoms and signs involving the nervous and musculoskeletal systems among the study subjects (R25-R29)

Symptoms	0–9 years n=811 (11.4)	10–19 years n=683 (9.6)	20–39 years n=2197 (30.8)	40–59 years n=2290 (32.1)	≥60 years 1143 (15.9)	Total 7124	χ^2, df and p value
Myalgia	4 (0.5)	17 (2.5)	362 (16.5)	554 (24.2)	369 (32.3)	1307 (18.3)	χ^2=493, df=4 p<0.001*
Low back pain	22 (2.7)	174 (25.5)	514 (23.4)	375 (16.4)	122 (10.7)	1207 (16.9)	χ^2=249, df=4 p<0.001*
Knee pain	4 (0.5)	7 (1.0)	130 (5.9)	348 (15.2)	176 (15.4)	665 (9.3)	χ^2=304, df=4 p<0.001*
Upper and lower Limb pain	8 (0.98)	13 (1.9)	184 (8.3)	230 (10.0)	88 (7.9)	523 (7.3)	χ^2=106, df=4 p<0.001*
Pain in leg, unspecified	5 (0.6)	9 (1.3)	151 (6.9)	174 (7.6)	79 (6.9)	418 (5.9)	χ^2=84.8, df=4 p<0.001*
Joint pain	4 (0.5)	4 (0.6)	89 (4.1)	166 (7.2)	86 (7.5)	349 (4.9)	χ^2=109, df=4 p<0.001*
Shoulder pain	7 (0.9)	3 (0.5)	91 (4.1)	165 (7.2)	60 (5.2)	326 (4.6)	χ^2=90.4, df=4 p<0.001*
Neck pain	0	2 (0.3)	55 (2.5)	58 (2.5)	14 (1.2)	129 (1.8)	χ^2=38.7, df=4 p<0.001*
Pain in arm, unspecified	0	1 (0.1)	25 (1.1)	51 (2.2)	7 (0.6)	84 (1.2)	χ^2=40.7, df=4 p<0.001*
Hip pain	0	1 (0.1)	17 (0.8)	38 (1.7)	21 (1.8)	76 (1.1)	χ^2=29.7, df=4 p≤0.001*
Joint swelling	2 (0.2)	3 (0.4)	14 (0.6)	21 (0.9)	12 (1.0)	52 (0.7)	χ^2=6.4, df=4 p=0.172
Foot pain	3 (0.4)	3 (0.4)	8 (0.4)	5 (0.2)	2 (0.1)	21 (0.3)	χ^2=2.0, df=4 p=0.733
Injury NOS	6 (0.7)	0	5 (0.2)	4 (0.2)	0	15 (0.2)	χ^2=14.8, df=4 p=0.005*
Total	65 (8.0)	237 (34.7)	1645 (74.9)	2189 (95.6)	1036 (90.6)	5172 (72.6)	χ^2=299, df=4 p<0.001*

Figures in parenthesis indicate percentage; χ^2 value, df-degrees of freedom, *Significant as *P*<0.05 using Chi-square test

Table 5 shows symptoms involving signs involving cognition, perception, emotional state, and behavior) and symptoms and signs involving the genitourinary system. The giddiness was the most common symptoms among females (4.0%). The prevalence of giddiness was more common among elderly above the age of 60 years (5.8%) compared to other age group, and it was found statistically significant (p<0.001). White discharge (0.9%) was the most common symptom among women under the genitourinary system. The symptoms white discharge (2.3%)

Table 5: Symptoms and signs involving cognition, perception, emotional state and behavior (R40-R46), and genitourinary system among the study subjects (R30-R39)

Symptoms		0–9 years n=811 (11.4)	10–19 years n=683 (9.6)	20–39 years n=2197 (30.8)	40–59 years n=2290 (32.1)	≥60 years n=1143 (15.9)	Total n=7124	χ^2, df and p value
Giddiness	Symptoms and signs involving cognition, perception, emotional state and behavior	4 (0.5)	11 (1.6)	108 (4.9)	96 (4.2)	66 (5.8)	285 (4.0)	χ^2=50.5, df=4 p<0.001*
Diabetes		0	1 (0.1)	5 (0.2)	15 (0.7)	14 (1.2)	35 (0.5)	χ^2=19.1, df=4 p=0.001*
Dizziness		0	0	6 (0.3)	14 (0.6)	1 (0.05)	21 (0.3)	χ^2=13.9, df=4 p=0.008*
Burning feet		0	**0**	0	8 (0.3)	0	8 (0.1)	χ^2=21.6, df=4 p=0.002*
Total		4 (0.5)	12 (1.8)	119 (5.4)	133 (5.8)	81 (7.1)	349 (4.9)	χ2=65.3, df=4 p<0.001*
White discharge	Symptoms and signs involving the genitourinary system	**0**	12 (1.7)	50 (2.3)	3 (0.1)	1 (0.1)	66 (0.9)	χ^2=80.9, df=4 p<0.001*
Irregular menstruation		0	9 (1.3)	38 (5.6)	8 (0.4)	2 (0.2)	57 (0.8)	χ^2=44.3, df=4 p<0.001*
Dysuria		0	1 (0.1)	9 (0.4)	11 (0.5)	1 (0.05)	22 (0.3)	χ^2=7.8, df=4 p=0.098
Total		0	22 (3.2)	97 (4.4)	22 (0.9)	4 (0.3)	145 (2.0)	χ^2=113, df=4 p<0.001*

Figures in parenthesis indicate percentage; χ^2 value, df-degrees of freedom, *Significant as *P*<0.05 using Chi-square test

Table 6: General symptoms and signs among the study subjects (R50-R69)

Symptoms	0–9 years n=811 (11.4)	10–19 years n=683 (9.6)	20–39 years n=2197 (30.8)	40–59 years n=2290 (32.1)	≥60 years 1143 (15.9)	Total 7124	χ^2, df and p value
Headache	17 (2.1)	172 (25.2)	412 (18.8)	268 (11.7)	67 (5.9)	936 (13.4)	χ^2=291, df=4 p<0.001*
Fever unspecified	161 (19.9)	49 (7.2)	107 (4.9)	76 (3.3)	37 (3.2)	430 (6.0)	χ^2=325, df=4 p<0.001*
Weakness	3 (0.4)	5 (0.7)	78 (3.5)	62 (2.7)	48 (4.2)	196 (2.7)	χ^2=41.8, df=4 p<0.001*
Visual impairment	3 (0.4)	9 (1.3)	38 (1.7)	47 (2.1)	36 (2.3)	133 (1.9)	χ^2=22, df=4 p<0.001*
Epiphora (watering eye)	15 (1.8)	9 (1.3)	12 (0.5)	27 (1.2)	35 (3.1)	98 (1.4)	χ^2=37.1, df=4 p<0.001*
Tooth pain	14 (1.7)	12 (1.8)	25 (1.1)	14 (0.6)	8 (0.7)	73 (1.02)	χ^2=12.9, df=4 p=0.012*
Ear pain	18 (2.2)	14 (2.0)	18 (0.8)	14 (0.6)	8 (0.7)	72 (1.01)	χ^2=24.8, df=4 p<0.001*
Eye pain	2 (0.2)	6 (0.9)	12 (0.5)	26 (1.2)	20 (1.7)	66 (0.9)	χ^2=17.1, df=4 p=0.002*
Loss of appetite	20 (2.5)	5 (0.7)	10 (0.5)	17 (0.7)	10 (0.9)	62 (0.9)	χ^2=28.9, df=4 p<0.001*
Hearing loss	1 (0.1)	3 (0.4)	2 (0.1)	3 (0.1)	3 (0.3)	12 (0.2)	χ^2=4.6, df=4 p=0.325
Abnormal weight loss	1 (0.1)	0	4 (0.2)	1 (0.03)	0	6 (0.1)	χ^2=4.63, df=4 p=0.327
Weight gain	1 (0.1)	0	4 (0.2)	1 (0.03)	0	6 (0.1)	χ^2=4.63, df=4 p=0.327
Total	256 (31.6)	284 (41.6)	722 (32.9)	556 (24.3)	272 (23.8)	2090 (29.3)	χ^2=110, df=4 p<0.001*

Figures in parenthesis indicate percentage; χ^2 value, df-degrees of freedom, *Significant as *P*<0.05 using Chi-square test

and irregular menstruation (5.6%) were more common in young adults, and it was statistically significant.

Table 6 depicts the general symptoms of females not classified elsewhere. Headache (13.4%) was the most common symptoms followed by fever (6%) and weakness (2.7%). Fever (19.9%), ear pain (2.2%), and loss of appetite (2.5%) were more common in children compared to other age groups, and it was found statistically significant for all three symptoms ($p<0.001$). Headache (25.2%) was the most common symptom in adolescents compared to others. Weakness (4.2%), visual impairment (2.3%), watering of eyes (3.1%), and eye pain (1.7%) were more common in the age group of above 60 years, and it was statistically significant for all four symptoms.

Fig. 1 depicts 10 common symptoms reported by the study subjects and Fig. 2 shows the prevalence of system-wise symptoms among the study subjects. Both figures depict that there is a predominance of symptoms of the musculoskeletal system.

Majority 4,906 (68.9%) females had only one symptom at presentation, whereas some subjects also had two or more symptoms (Fig. 3).

To study the association between number of symptoms reported by the subjects and age group, subjects were categorized into two groups. The Chi-square test was used to study the association and odds ratio (OR) value of >1 was considered having a positive association. Age group was associated with a number of symptoms reported. As the age advances, the odds of getting two or more symptoms increased from OR of 1.1 in the children to OR of 2.59 in the age group of 60 and above (Table 7).

DISCUSSION

Of the total 7,124 female patients who attended the mobile clinic, one-fifth (21%) of them were children and adolescents. Over 60% (62.9%) belongs to the age group of 20–59 years and about one-sixth (15.9%) of them were 60 and above age group. Symptoms associated with the musculoskeletal system (72.6%) were the most common health problem in our study followed by general symptoms (29.3%) and symptoms of the circulatory and respiratory system (27.1%). A study done by Rayamajhi *et al*. [5] among female patients attending free health camp showed that musculoskeletal system was the common system affected, followed by the digestive system, genitourinary system, and respiratory system. In the present study, the top six most common symptoms among female patients were myalgia, low back pain, nasal congestion, headache, knee pain, and abdominal pain.

In the present study, about 68.9% of patients had a single symptom, about one-fourth of patients had two symptoms, and 5.4% of the patients had three or more symptoms. Very similar findings were reported by Pambos *et al*. [6] that among patients attending health camp, 63.4% had one diagnosis, 25.8% had two diagnoses, and 4.3% had three or more diagnosis. In contrast, a study done by Kroenke *et al*. [7], in 1997, showed 21% had one symptom, 23% had 2–3 symptoms, and 56% had three or more symptoms and Marple *et al*. [8] showed 25% had one symptom, 30% had two three symptoms, and 45% had more than three symptoms.

Five common symptoms of children reported in our mobile clinic were nasal congestion (41.3%), fever (19.9%), cough (13.7%), abdominal pain (7.2%), and skin rash. About 81.1% of them had a single symptom, and 16.6% had two symptoms. Vervoort *et al*. [9] reported that in terms of frequency, headache, stomachache, and pain in joints, followed by muscle fever and vomiting or upset stomach are the most regularly occurring symptoms in children. Skuse *et al*. in his study [10] had reported that in the general population 2–10% of children complain of stomach ache, joint pains, and headache. Bisht *et al*. [11] reported pain abdomen, headache, chest pain, and vomiting to be the common somatoform disorder among children.

Table 7: Association between number of symptoms reported by the subjects and age group

Age group (Years)	Number of symptoms		OR (95% CI)	χ^2, df and *P* value
	Singlen (%)	Two or moren (%)		
0–9	662 (81.6)	149 (18.3)	1	
10–19	547 (80.1)	136 (19.8)	1.10, (0.85–1.4)	χ^2=0.57, df=1, *P*=0.45
20–39	1438 (64.5)	759 (34.5)	2.34, (1.92–2.86)	χ^2=73, df=1, *P*=0.0001*
40–59	1534 (66.9)	756 (32.9)	2.19, (1.79–2.69)	χ^2=62.1, df=1, *P*=0.0001*
≥60	725 (63.4)	424 (36.5)	2.59, (2.09–3.22)	χ^2=78.9, df=1, *P*=0.0001*

Figures in parenthesis indicate percentage; χ^2 value, df-degrees of freedom, *Significant as *P*<0.05 using Chi-square test, OR: Odds ratio. CI: Confidence interval

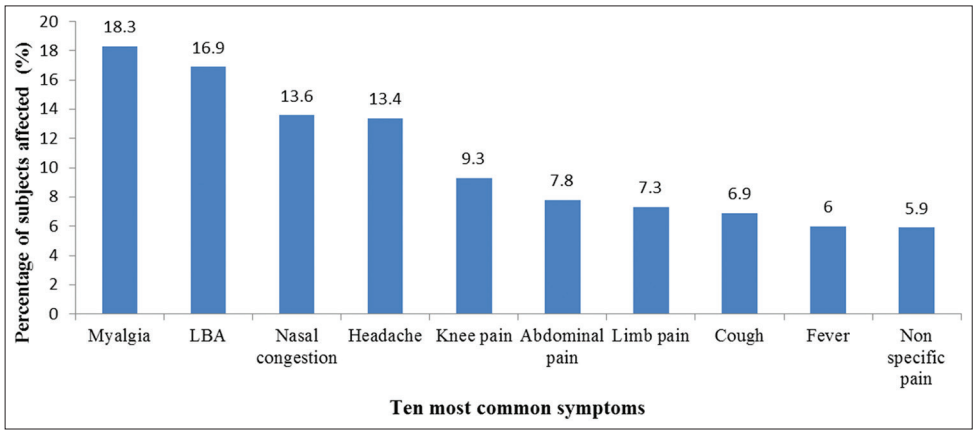

Fig. 1: Ten most common symptoms reported by the study subjects. Numbers indicate the percentage of subjects affected; LBA: Low backache

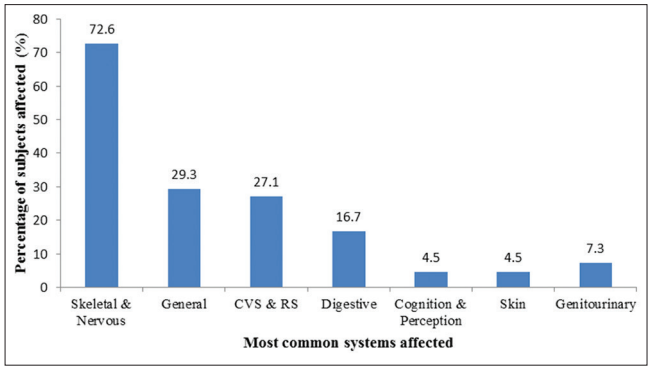

Fig. 2: Common systems affected among the study subjects. Numbers indicate the percentage of subjects affected; CVS: Cardiovascular system; RS: Respiratory system

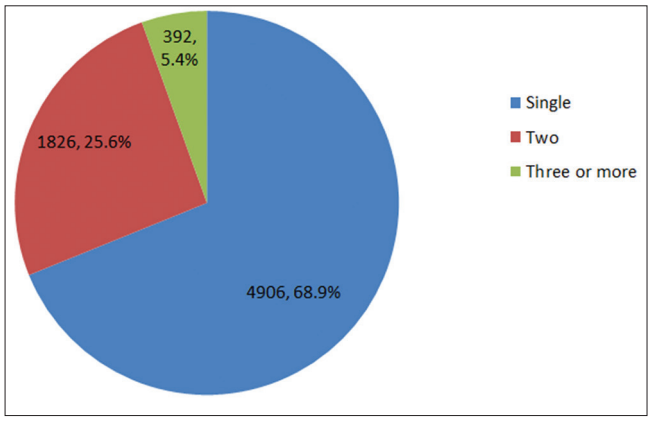

Fig. 3: Number of symptoms reported by the study subjects

Five common symptoms of adolescents reported were low back pain (25.5%), headache (25.2%), abdominal pain (17.7%), nasal congestion (17.7%), and cough (7.7%). Mohapatra *et al.* [12] had reported in his study with 10% of teenagers reporting frequent headaches. Haugland *et al.* [13] reported in the study conducted by cross-national survey by the WHO among adolescent showed headache, followed by abdominal pain, backache, dizziness, low energy, irritability, nervousness, and sleep difficulties. Five common symptoms of adults in the age group of 20–39 years were low back pain (23.4%), myalgia (16.5%), epigastric pain (14.9%), nasal congestion (13.2%), and headache (11.7%).

Five common symptoms of adults in the age group of 40–59 years were myalgia (24.2%), low back pain (16.4%), knee pain (15.2%), upper and lower limb pain (10%), and only leg pain (7.6%). Similar findings were reported by Pambos *et al.* [6] that among the patients who attended the rural health camp, stomach pain (20.1%), musculoskeletal pain (11.8%), osteoarthritis (7.4%), and visual problems (6.1%) as most commonly occurring problems in adults. Krantz and Östergren [14] reported that among middle-aged women the common symptoms were joint pain, followed by muscular tension, tiredness, and low back pain in Swedish.

Five common symptoms of geriatric population above the age of 60 years were myalgia followed by knee pain, low back pain, and joint pain. A similar finding of the predominance of symptoms of musculoskeletal system was reported by Rayamajhi *et al.* [5] among the elderly population in Nepal attending free health camp. Hilderink *et al.* [15] reported joint pain, intestinal problems, and back pain being the common somatic complaints among the geriatric population. Similar findings were reported by Thygesen *et al.* [16] where the common complaints of the geriatric were musculoskeletal, gastrointestinal, and respiratory and allergy problems. Sha *et al.* [17] reported that musculoskeletal, fatigue, back pain, shortness of breath, and difficulty in sleep were the common symptoms above the age of 60 years.

Musculoskeletal system was the most common system affected in the adult females in the age group of 20–39 and 40–59 years (74.5% and 95.6%, respectively) and geriatric population (90.6%). In case of children the respiratory and circulatory system symptoms (57.4%) and case of adolescents, general symptoms were more common (35.1%).

Limitation

The limitation of the study was that the study had been done among the health seekers of a medical camp. It represents only the tip of the iceberg, and moreover, severe cases usually may not attend the medical camp. Thus, the prevalence of symptoms in this study may not be extrapolated to a larger population.

CONCLUSION

In the present study, about two third of the women who have attended the mobile clinic complain of symptoms related to a musculoskeletal system consisting of myalgia, low back pain, knee pain headache, and limb pain. Approximately one-third of the subjects complained of symptoms of the respiratory system such as nasal congestion, cough, and fever. This makes a large number of patients with physical symptoms that have no clear medical conditions, and most of these symptoms were self-limiting. Furthermore, these conditions can be managed at the primary care center itself and do not require specialty care, thus reducing the considerable burden on the tertiary hospitals. Thus, an effective protocol for management of these physical conditions with no medical problems at primary care level has to be evolved in a resource constraint country like India to effectively use the limited health-care resources.

AUTHORS' CONTRIBUTIONS

Logaraj M has provided the design, intellectual content, literature search, data analysis, manuscript review, and logistics support for the study. Sathiyanarayanan S, contributed for collecting data, statistical analysis, and manuscript writing. Balaji R helped in data collection, literature search, data analysis, and review.

CONFLICTS OF INTEREST

The authors declare that there are no conflicts of interest regarding the publication of this article.

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