Scholars Journal of Applied Medical Sciences (SJAMS) **ISSN 2320-6691 (Online)**
Sch. J. App. Med. Sci., 2014; 2(3D):1105-1109 **ISSN 2347-954X (Print)**

(An International Publisher for Academic and Scientific Resources)
www.saspublishers.com DOI: 10.36347/sjams.2014.v02i03.048

Research Article

Cancer awareness in Urban Field Practice Area, Department of Community Medicine, Dr S.N. Medical College, Jodhpur

Mahendra Singh[1*], Savitri Sharma[2], Rita Meena[3], Suman Bhansali[4], Dewesh Kumar[5], Manish Mittal[6]
[1]Senior Resident, Department of Community Medicine & Family Medicine, AIIMS, Jodhpur, Rajasthan, India
[2]Assistant Professor, Department of Community Medicine, Dr. S. N. Medical College, Jodhpur, Rajasthan, India
[3]Professor & Head, Department of Community Medicine, Dr. S. N. Medical College, Jodhpur, Rajasthan, India
[4]Professor, Department of Community Medicine, Dr. S. N. Medical College, Jodhpur, Rajasthan, India
[5]Senior Resident, Department of Community Medicine & Family Medicine, AIIMS, Jodhpur, Rajasthan, India
[6]Final Year Resident, Department of Community Medicine, Dr. S. N. Medical College, Jodhpur, Rajasthan, India

***Corresponding author**
Dr. Mahendra Singh
Email: gehlot.mahendrasingh@gmail.com

Abstract: Cancer is most fearful disease and more than two-thirds of cancer patients are in advanced and incurable stage at the time of diagnosis. Public awareness about cancer can play a big role in prevention and early detection of cancer. In this perspective, the present study aimed to assess awareness about risk factors and warning signals of cancer in an urban area of Jodhpur, India. The cross-sectional study, conducted in 2012, used a structured questionnaire to collect data from 880 men and women of 20 years and above were interviewed using a pretested open questionnaire after having their consent.Variables included age, religion, education, socio economic status, family type, knowledge of risk factors and warning signals of cancer. The common risk factors known by majority of study participants were tobacco chewing (64.2%), smoking (59.7%) and alcohol (56.1%). There was poor knowledge regarding other risk factors of cancer. Study participants had poor knowledge regarding different warning signals of cancer.People were not much aware of common warning signals of cancer, which are most important for early diagnosis and treatment. Male study participants had far better knowledge than female study participants of different warning signals of cancer. There is a great need for increasing the awareness in masses by collaborative action of public health specialists, health professionals and through IEC activities.
Keywords: Awareness, Cancer, Urban, Warning signal, Treatment, Community, Prevention

INTRODUCTION

There are 20 million people living with cancer in the world today and it is the second leading cause of death [1]. The numbers are such that each of us will be touched by it either as a patient, a family member or a friend. More than 1/3 die from preventable cancers and suffer unnecessarily from pain and anguish at the end of their lives. The crux of the problem is that more than two third of the cancer patients present themselves to a medical facility when the disease is far advanced and is not amenable to treatment.

Further many cancer deaths can be prevented if they are diagnosed and treated at an early stage. For this an awareness regarding the warning signals and screening procedures is required amongst the general public so that with the limited resources which are used to treat patients with advanced disease who really do not benefit from treatment, are utilized efficiently to treat the patients at an earlier stage of disease.

Awareness among community regarding prevention, warning signals and screening methods can reduce the physical, psychological and social suffering.

To generate awareness, a suitable health education strategy has to be developed, which requires understanding the level of knowledge of the community regarding risk factors, warning signals and screening methods available. It is also required to determine the media type and specific channels of communication for effective and efficient dissemination of information.

MATERIALS AND METHODS

A cross sectional study was conducted during the period –January 2012 to June 2012 in an urban locality of Jodhpur city. The study population comprised of men and women of 20 years and above residing in eight different colonies / mohallas located around Urban Health Training Centre (UHTC), Bhadwasia, which is field practice area of the

department of Community Medicine, Dr S.N. Medical College, Jodhpur (Rajasthan).

Total numbers of households in these eight colonies collectively were 4160.Out of these 400 households was selected proportionately by systematic random sampling to cover the whole area uniformly.

A total population of 2248 was found to be residing in these 400 households, with an average household size of 5.6. Out of this total population, 1076 persons belonged to age group 20 years and above. 81.8% (880 out of 1076) responded to the interview while remaining 10.2% were absent / out of station, 5.6% refused and 2.4% were not able to answer. A pretested open questionnaire was used for the interview. Persons who were aware about the word cancer (740 out of 880) were further interviewed to find out their perception regarding risk factors and warning signals of cancer. Their demographic profile including age, sex, caste, religion, educational and socioeconomic status was also recorded.

Statistical analysis

Data entry and analysis were done using SPSS for Windows software (Version 21.0; SPSS Inc, IL, Chicago, US). The chi-square test was used to compare male and female study participants awareness regarding certain characteristics of cancer, risk factors and warning signals of cancer. A p value of < 0.05 was considered statistically significant.

RESULTS

The study found that 84.1 % (740 out of 880) of the study subjects were aware about the word cancer. 86.9 % (n=398) of the studied males had heard the word cancer, while 81.1% (n=342) of the females had so. Persons who were aware about the word cancer (n=740) were further interviewed to find out their perception regarding certain characteristics of cancer, risk factors and warning signals of cancer.

Table1: Socio-demographic Characteristics of study participants (n= 880)

Characteristics	Respondents
Age	
20-29 Years	300 (34.1%)
30-39 Years	228 (25.9%)
40-49 Years	158 (17.9%)
50-59 Years	107 (12.1%)
60& Above	87 (9.9%)
Literacy Status	
No education	334 (38.0%)
<5 year completed	168 (19.1%)
5-9 years completed	226 (25.7%)
10-11 years completed	87 (9.9%)
≥12years completed	65 (7.3%)

(Parenthesis given in bracket is percentage)

Table 2: Distribution of study participants according to their knowledge regarding certain characteristics of cancer

Characteristics of cancer (n=740)		Yes		No		'p' Value χ^2, df
		Number	%	Number	%	
Does cancer run in families?	Male (n=398)	97	24.4	301	75.6	0.485
	Female (n=342)	75	21.9	267	78.1	χ^2 =0.48, df =1
Can cancer occur at any age?	Male (n=398)	101	25.4	297	74.6	0.766
	Female (n=342)	91	26.6	251	73.4	χ^2 =0.08,df.=1
Can cancer be diagnosed at an early stage?	Male (n=398)	203	51.0	195	49.0	0.0001*
	Female (n=342)	126	36.8	216	63.2	χ^2 =14.33,df =1
Is cancer curable?	Male (n=398)	253	63.6	145	36.4	0.653
	Female (n=342)	211	61.7	131	38.3	χ^2 =0.20,df =1
Can cancer be controlled and prevented?	Male (n=398)	151	37.9	247	62.1	0.03*
	Female (n=342)	103	30.1	239	69.9	χ^2 =4.65,df =1

(p<0.05- Significant*)

Basic knowledge of study subjects regarding certain characteristics of cancer shows that though the knowledge level of men was better than women but it was statistically significant only for the questions-" Can cancer be diagnosed at an early stage?" and "Can cancer be controlled and prevented?"

Table 3: Distribution of study participants according to their knowledge regarding risk factors for cancer

Risk factors for cancer		Yes		No		'p' Value χ^2, df
		Number	%	Number	%	
Smoking	Male (n=398)	278	69.8	120	30.2	0.0001* χ^2 =35.7,df =1
	Female (n=342)	164	47.9	178	52.1	
Tobacco chewing	Male (n=398)	305	76.6	93	23.4	0.0001* χ^2 =56.84,d.f. =1
	Female (n=342)	170	49.7	172	50.3	
Alcohol	Male (n=398)	279	70.1	119	29.9	0.0001* χ^2 =68.72,df =1
	Female (n=342)	136	39.8	206	60.2	
Infection	Male (n=398)	64	16.1	334	83.9	0.084 χ^2 =2.97,df =1
	Female (n=342)	39	11.4	303	88.6	
Improper dietary habits	Male (n=398)	133	33.4	265	66.6	0.0001* χ^2 =24.18,df =1
	Female (n=342)	59	17.2	283	82.8	
Obesity	Male (n=398)	76	19.1	322	80.9	0.969 χ^2 =0.01,df=1
	Female (n=342)	64	18.7	278	81.3	
Hormones	Male (n=398)	29	7.3	369	92.7	0.877 χ^2 =0.02,df =1
	Female (n=342)	23	6.7	319	93.3	
Exposure to Cancer causing substances	Male (n=398)	76	19.1	322	80.9	0.015* χ^2 =5.87,d.f. =1
	Female (n=342)	42	13.3	300	87.7	
Radiation	Male (n=398)	37	9.3	361	90.7	0.194 χ^2 =1.68,df =1
	Female (n=342)	22	6.4	320	93.6	
Genetic Reasons	Male (n=398)	62	15.6	336	84.4	0.001* χ^2 =10.41,df =1
	Female (n=342)	26	7.6	316	92.4	

($p<0.05$- Significant*)

On probing for causes of cancer, various causes so enumerated included tobacco chewing (64.2%), smoking (59.7%) and alcohol (56.1%). There was poor knowledge regarding other risk factors of cancer like improper dietary habits (25.9%), carcinogens exposure (16%), infection (13.9%), genetic factors (11.9%), obesity (18.8%), radiation (8.0%) and hormones (6.9%) (Table 3).

Male study subjects had better knowledge than female subjects regarding different risk factors for cancer. Statistically significant difference was observed between knowledge of men and women regarding smoking, alcohol, improper dietary habits, exposure to carcinogens and genetic reason as risk factors for cancer.

Table 4: Distribution of study participants according to their knowledge regarding the warning signals of cancer

Warning signals of cancer		Yes		No		'p' Value χ^2, df
		Number	%	Number	%	
Change in bowel and bladder habits	Male (n=398)	63	15.8	335	84.2	0.420 χ^2 =0.65,df =1
	Female (n=342)	46	13.5	296	86.5	
Sores that do not heal	Male (n=398)	78	19.6	320	80.4	0.678 χ^2 =0.17,df =1
	Female (n=342)	62	18.1	280	81.9	
Excessive & irregular bleeding during menstruation	Male (n=398)	41	10.3	357	89.7	0.110 χ^2 =2.54,df =1
	Female (n=342)	23	6.7	319	93.3	
Lumps in the breast / testes or elsewhere in the body	Male (n=398)	156	39.2	242	60.8	0.0001* χ^2 =20.4,df =1
	Female (n=342)	80	23.4	262	76.6	
Persistent difficulty in breathing and persistent cough	Male (n=398)	98	24.6	300	75.4	0.208 χ^2 =1.58,df =1
	Female (n=342)	70	20.5	272	79.5	
Blood in cough, urine or stool	Male (n=398)	106	26.6	292	73.4	0.192 χ^2 =1.69,df=1
	Female (n=342)	76	22.2	266	77.8	
Difficulty in swallowing or digestion	Male (n=398)	69	17.4	329	82.6	0.885 χ^2 =0.20,df =1
	Female (n=342)	57	16.7	285	83.3	
Unusual weight loss & loss of appetite	Male (n=398)	36	9.0	362	91.0	0.133 χ^2 =2.25,df =1
	Female (n=342)	20	5.9	322	94.1	

(p<0.05- Significant*)

Subjects were asked about seven cardinal symptoms of cancer recommended by WHO. Most common symptoms according to them were a lump in the breast / testes or elsewhere in the body 236 (31.9%) followed by blood in cough, urine or stool 182(24.5%) and persistent difficulty in breathing & persistent cough168 (22.7). Other serious symptoms like difficulty in swallowing or digestion (17.0%), change in bowl & bladder habits (14.7%), excessive & irregular bleeding during menstruation (8.2%), unusual weight loss (8.0%) etc. were less known by study subjects (Table 4).

Both male & female study subjects had poor knowledge regarding different warning signals of cancer. A statistically significant difference was not found between knowledge of men and women regarding warning signals of cancer except one warning signal of cancer, lump in the breast / testes or elsewhere in the body.

DISCUSSION

Majority (84.1%) of the people who responded (740 out of 880) to the interview , were aware about the word cancer. More males (86.9%) than females (81.1%) had heard the word cancer, showing statistically significant(x2 =5.20, d.f. =1, p<0.05) difference. Sonia Puri et al (2010) reported almost similar level of awareness about the word cancer (84.7%) in a community based study conducted in urban field practice area and adjoining largest slum of Chandigarh [2]. Higher level of awareness about the word cancer (87%) was reported by Sherin Raj et al (2012) from six states wiz, West Bengal, Kerala, Madhya Pradesh, Rajasthan and Mizoram [3].

The knowledge about the possible causes of cancer may bring behavioural changes among the masses, cutting short the possibility of risk behaviour.

In present study tobacco chewing was most frequently (64.2%) known risk factor of cancer followed by smoking (59.7%) and alcohol (56.1%).There was poor knowledge regarding other risk factors of cancer like improper dietary habits (25.9%), exposure to carcinogens (16%), infection (13.9%), genetic factors (11.9%), obesity (18.8%), radiation (8.0%) and hormones (6.9%). Similar finding were reported in studies done in Delhi and Chandigarh [2, 4].

People are mostly aware about use of smokeless tobacco and smoking as the main cause of cancer, they were not aware of other risk factors. It is mainly due to the fact that major source of information is TV and newspaper which highly concentrate on publicity against tobacco due to the 'Cigarettes and

Other Tobacco Products (Prohibition of Advertisement and Regulation of Trade and Commerce, Production, Supply and Distribution) Act, 2003 (COTPA) [5]. However, health education activities hardly publicize other important risk factors like consumption of alcohol, red meat, industrial radiation, early child bearing, nulliparity, overweight etc.

In our study 64.2% of study subjects (76.6% males and 49.7% females) who had heard the word cancer suggested tobacco chewing (jarda, gutakha, pan) as risk factor of cancer. Figure higher than this were reported by Sonia Puri *et al*. [2], Kandasamy Ravichandran *et al*. [6], and Abhijeet Basu *et al*., [7] (74.7%,65.27%, and 88.17% respectively) [2, 6, 7].

Undoubtedly, the burden due to tobacco (smoke or smokeless) related cancer is increasing alarmingly throughout the world. Worldwide tobacco control merits the highest priority in the fight against cancer and in this region many steps are being taken but still it was observed in our study that many of the respondents who had heard word cancer could not co relate the relation between tobacco and cancer.

There was direct association between knowledge of cancer risk factor and literacy status of respondents as is evident in our study as well as studies made by others [8-10].

People were not aware of common warning signals of cancer, which are most important for taking early decision to visit a health facility for diagnosis and treatment and its absence cause patients reaching to hospital late/last stage of cancer. Which makes treatment expensive and reducing chances of survival. The statistics also suggests that 75 - 80 percent of all cancers are reported in advanced stage (NCRP, 2006).

Only 31.9% of study participants (39.2% males and 23.4% females) aware of unusual swelling (lumps in breast / testes or elsewhere in the body) as a warning signal of cancer. Figures higher (ranging from 65% to 85%) than this were reported by Sonia Puri *et al*. and American cancer society survey (1978).

Blood in vomit / cough / urine or stool was mentioned as warning signal of cancer by a total 24.6% of study participants. Higher figure of 59.2% was reported by Sonia Puri *et al*., in their study [2].

Sores that do not heal were mentioned as warning signal of cancer by a total 18.9% of those who had heard of cancer in the present study. Figure higher than this were reported in studies made by Sherin Raj *et al*. [3].

There was direct association between knowledge of cancer warning signals and educational status of respondents as is evident in our study as well as studies made by Sonia puri *et al*. [2] and Ravichandran K *et al*. [6].

There was positive association between knowledge of warning signals of cancer and socio-economic class of respondents is evident in our study as well as study made by Sonia puri *et al*. [2].

CONCLUSION

In conclusion, analysis of this study revealed exist poor knowledge of risk factors and warning symptoms of cancer in community.. These suggest that more rigorous efforts under the National Cancer Control Programme is needed to raise awareness level in the community.

REFERENCES

1. Boyle P, Levin B; World Cancer Report 2008. Lyon: International Agency for Research on Cancer, 2008.
2. Puri S, Mangat C, Bhatia V, Kaur A, Kohli D; Knowledge of cancer and its risk factors in Chandigarh, India. The Internet Journal of Epidemiology, 2010; 8(1). Available from http://ispub.com/IJE/8/1/4333
3. Raj S, Piang LK, Nair KS, Tiwari VK, Kaur H, Singh B; Awareness regarding risk factors, symptoms and treatment facilities for cancer in India. Asian Pac J Cancer Prev., 2012; 13(8): 4057-4062.
4. Seth T, Kotwal A, Thakur R, Singh P, Kochupillai V; Common cancers in India. Knowledge, attitudes and behaviours of urban slum dwellers in New Delhi. Public Health, 2005; 119(2): 87-96.
5. Ministry of Health & Family Welfare; GOI, Annual Report 2009–2010.Ministry of Health and Family Welfare The Cigarettes and Other Tobacco Products (Prohibition of Advertisement and Regulation of Trade and Commerce, Production, Supply and Distribution) Act, (2003) and Related Rules & Regulations, 2003.
6. Ravichandran K, Al-Hamdan NA, Mohamed G; Knowledge, attitude, and behaviour among Saudis toward cancer preventive practice. J Family Community Med., 2011; 18(3):135–142.
7. Basu A, Datta S, Roy C; Knowledge and attitude towards cancer: the need for health education. J Indian Med Assoc., 2010;108 (5): 305-306.
8. Claeys P, Gonzalez C, Gonzalez M; Determinants of cervical cancer screening in poor area: results of a population-based survey in Rivas, Nicaragua. Trop Med Int Health,, 2002; 7(11): 935-941.
9. Hiatt RA, Klabunde C, Breen N; Cancer screening practices from National Health Interview Surveys: Past, present, and future. J Natl Cancer Inst., 2002; 94(24):1837-1846.
10. Kumar YS, Mishra G, Gupta S; Level of cancer awareness among women of low socioeconomic status in Mumbai slums. Asian Pac J Cancer Prev., 2011; 12(5): 1295-1298.