

1     **A DESCRIPTIVE STUDY TO ASSESS THE MYTH, MISCONCEPTION AND**  
2     **STIGMA OF CANCER AMONG CANCER PATIENTS ATTENDING OPD OF**  
3     **A SELECTED ONCOLOGY HOSPITAL, KOLKATA**

4     **ABSTRACT**

5     **Background:** Worldwide major cause of mortality and morbidity is cancer.  
6     Worldwide, an estimated 19.3 million new cancer cases (18.8 million excluding non-  
7     melanoma skin cancer) and almost 10.0 million cancer deaths (9.9 million excluding  
8     nonmelanoma skin cancer) occurred in 2020. ICMR reported that cancer sufferers in  
9     India will increase to 29.8 million in 2025 from 26.7 million in 2021. While 1,08,394  
10    new cancer cases were diagnosed across Bengal in 2020 is likely to go up to 1,21,6639  
11    in 2025, according to projections by the Profile of Cancer and Related Factors, Bengal,  
12    released by the National Center for Disease Informatics and Research (NCDIR) of the  
13    ICMR in Bangalore.<sup>[1]</sup> Cancer diagnosis is one of the biggest challenges and stresses  
14    for individuals; because cancer is considered a life-threatening illness.<sup>[3]</sup>

15    **Methods:** The present cross-sectional study assessed myths, misconceptions, and  
16    stigmas of cancer among 370 cancer patients selected from OPD through a purposive  
17    sampling technique. Data were collected from each sample by semi-structured  
18    questionnaire on demographic characteristics, a structured interview schedule on myth,  
19    a structured interview schedule on misconception, and a structured questionnaire on  
20    stigma.

21    **Results:** Study findings represented myths of cancer as the spread of cancer through  
22    diagnostic needle biopsy, bad, dishonest people, the curse of God, supernatural factors,  
23    envy, black magic, or witchcraft. Other myths were cancer is incurable, and lead to  
24    death. Common misconceptions among cancer patients expressed as eating sugar, and  
25    exposure to air results in worsening of cancer. Other misconceptions among cancer  
26    patients were an inherited disease, all patients die irrespective of treatment and men are  
27    not liable to have breast cancer. In the impossibility of recovery domain, the most  
28    common stigmas explored as cancer patients not being socially active, decrease in job  
29    performance even after treatment, and very difficult to be healthy after a confirmed  
30    diagnosis of cancer. In stereotypes of cancer patients domain, common stigmas were  
31    cancer patients could be easily recognized by their looks, they would have a difficult  
32    time in sexual intimacy, and unable to make social contributions. In the experience of

33 social discrimination domain, common stigmas were some neighbors, and friends  
34 avoided interaction with them, and even cancer patients themselves felt excluded from  
35 social gatherings. No significant association was found at 0.05 level of significance  
36 between demographic characteristics with myth, misconception, and stigma of cancer.

37 **Keywords:**Myth, misconception, and stigma of cancer, cancer patients.

## 38 INTRODUCTION

39 Cancer is a very painful and life-threatening disease, and its incidence is alarmingly  
40 increasing around the globe. Apart from genetic reasons, several causes result in  
41 diseases like cancer. However, being a wide area of the disease itself, several associated  
42 myths are misleading the masses about cancer. The same is also misguiding many  
43 patients regarding treatment as well. Some people consider cancer as a death warrant  
44 itself and as a result, such patients either don't report or report when it is too late.  
45 Although lack of proper information and awareness is already a challenge, myths  
46 associated with cancer are adding to it. In chronic diseases, including cancer stigma can  
47 be found which is one of the psychosocial and intercultural issues. Stigma may reduce  
48 communication due to social isolation, feeling shame, and other's judgment. These  
49 factors may lead to delayed access to healthcare services and poor health outcomes in  
50 individuals with cancer. Worldwide major cause of mortality and morbidity is  
51 cancer. Worldwide, an estimated 19.3 million new cancer cases (18.8 million excluding  
52 non-melanoma skin cancer) and almost 10.0 million cancer deaths (9.9 million  
53 excluding nonmelanoma skin cancer) occurred in 2020. According to the ICMR  
54 reported that cancer sufferers in India will increase to 29.8 million in 2025 from 26.7  
55 million in 2021. While 1,08,394 new cancer cases were diagnosed across Bengal in  
56 2020, the figure is likely to go up to 1,21,6639 in 2025, according to projections by the  
57 Profile of Cancer and Related Factors, Bengal, released by the National Center for  
58 Disease Informatics and Research (NCDIR) of the ICMR in Bangalore.<sup>[1]</sup> Cancer  
59 diagnosis is one of the biggest challenges and stresses for individuals; because cancer is  
60 considered a life-threatening illness.<sup>[3]</sup> Cancer affects the whole life of affected people,  
61 as well as the biological and psychosocial problems that cause many physical and  
62 mental discomforts in people with cancer.<sup>[4]</sup> In cancer one of the psychological problem  
63 is stigma.<sup>[5]</sup> Negative attitudes towards cancer and stereotypes restrict people from  
64 disclosing cancer to neighbors or associates.<sup>[2]</sup> Evil arrows as well as other

65 misconceptions and myths help significant delays in medical care-seeking behaviors of  
66 cancer patients, specially when presenting to the hospital.<sup>[6]</sup>One-quarter of patients (25  
67 %) and over one-third of caregivers (35%) perceived that people in the community  
68 believe that cancer is a curse or the result of past sins, which is the source of perceived,  
69 experienced, and internalized stigma.<sup>[7]</sup>

## 70 **PURPOSE**

71 This study intends to explore the prevailing myths, misconception and stigmas toward  
72 cancer among cancer patients as an introduction to further research and understanding  
73 of relevant factors for finding methods to reduce myth and stigma in cancer patients  
74 which will enhance to access medical aids for diagnosis, treatment and prevention.

## 75 **METHODS**

76 **Research design:** The research design of the present study is descriptive survey design.

77 **Setting:** The study is conducted in the OPD of the Tata Medical Center, Kolkata.

78 **Population:** The target population selected for this study included all cancer patients.

79 **Sample:** In this study all cancer patients who came for the first time in OPD are  
80 sample.

81 **Sampling technique:** Non-probability purposive sampling technique was chosen for  
82 this study on the subjective judgement of the researcher.

## 83 **CRITERIA FOR SELECTING SAMPLE**

### 84 **Inclusion criteria**

- 85 • Patients who are attending OPD for first time.
- 86 • Patients who are agreed to take part in the study..

### 87 **Exclusion criteria**

- 88 • Patients below 18 years of age.
- 89 • Patients who are physically and psychologically very sick or unstable.

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## 93 **Data collection tools and techniques**

94 Following tools were used for procuring data-  
95 Semi structured questionnaire on Demographic characteristics- It is developed to  
96 collect background information of cancer patients through interviewing technique,  
97 which contains gender, age, marital status, resides at, education, occupation and  
98 monthly income. Collected data is being measured by frequency and percentage.

99 Structured questionnaire to assess the Myth of cancer among cancer patients- It is a  
100 self-structured tool to assess the different myths of cancer patients through interviewing  
101 technique. Collected data is being measured by frequency and percentage.

102 Structured questionnaire to assess the Misconception of cancer among cancer patients-  
103 It is a self-made tool to assess the different misconceptions of cancer patients through  
104 interviewing technique. Collected data is being measured by frequency and percentage.

105 Structured questionnaire to assess the Stigma of cancer among cancer patients- It is a  
106 self-structured tool to assess the different stigmas of cancer patients through self-  
107 reported technique. Collected data is being measured by frequency and percentage.

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124 **Table no. 1: Frequency and percentage distribution on demographic**  
125 **characteristics of cancer patients**

Variables	Frequency	Percentage
<b>Age in years</b>		
20-30	25	6.8%
31-40	43	11.6%
41-50	69	18.7%
51-60	86	23.2%
Above 60	147	39.7%
<b>Gender</b>		
Male	165	44.6%
Female	205	55.4%
<b>Marital status</b>		
Unmarried	24	6.5%
Married	279	75.4%
Widow/widower	67	18.1%
<b>Resides at</b>		
Urban	234	63.2%
Rural	136	36.8%
<b>Socio economic status</b>		
Upper	5	1.4%
Upper middle	99	26.7%
Lower middle	62	16.7%
Upper lower	202	54.7%
Lower	2	0.5%
<b>Family history of cancer</b>		
Present	151	27.5%
Absent	219	72.5%
<b>Type of cancer</b>		
GI	68	18.4%
Breast	76	20.5%
Head & neck	68	18.4%
Gyneacological	36	9.7%
Uro	14	3.8%
Hematological	34	9.2%
Other	74	20%

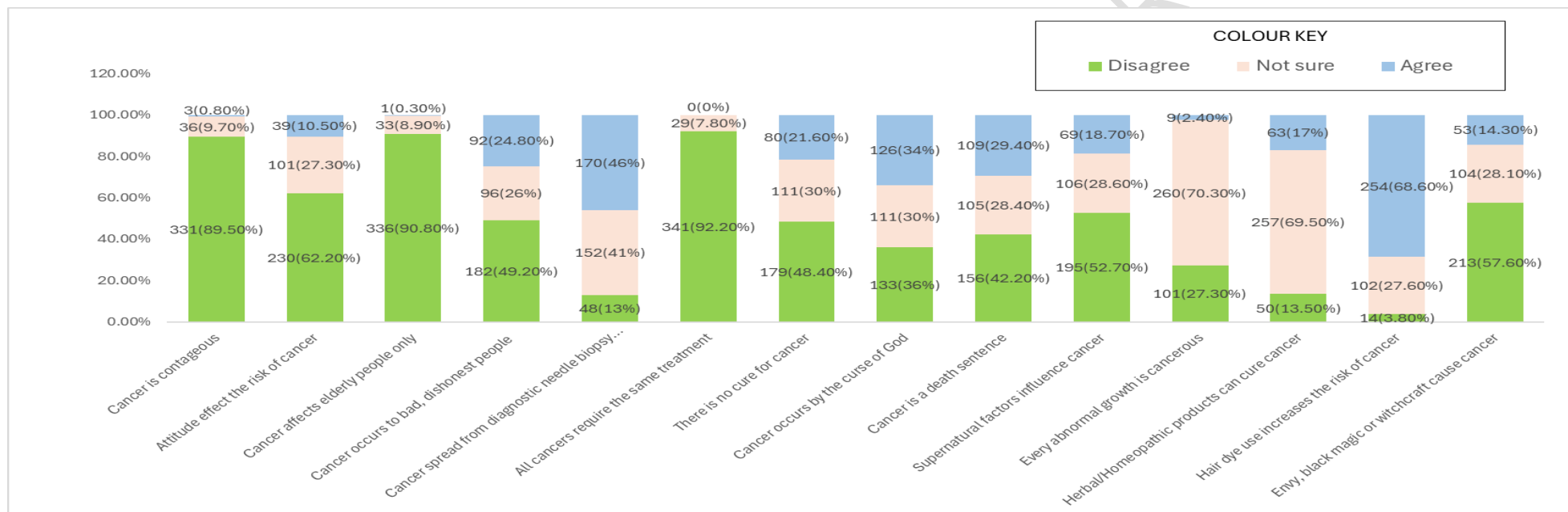
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128 Data depicted in table 1 revealed that, majority 147(39.7%) of patients belonged to the  
 129 age group of above sixty. Majority 205(55.4%) of the patients were female and rest

130 165(44.6%) of patients were male. Most of the patients 279(75.4%) were married.  
131 Majority 234(63.2%) patients reside at urban area. As per socio economic status  
132 majority 202(54.7%) of patients belonged to upper lower class. Majority 219(72.5%) of  
133 patients had no family history of cancer. In reference to type of cancer 76(20.5%) of the  
134 patients had breast cancer, 68(18.4%) of patients had Gastrointestinal and head & neck  
135 cancer, 36(9.7%) of patients had gynecological cancer, 34(9.2%) of patients had  
136 hematological cancer, 14(3.8%) of them had Urological cancer and rest 74(20%) of  
137 patients had other types of cancer.

UNDER PEER REVIEW IN IJAR

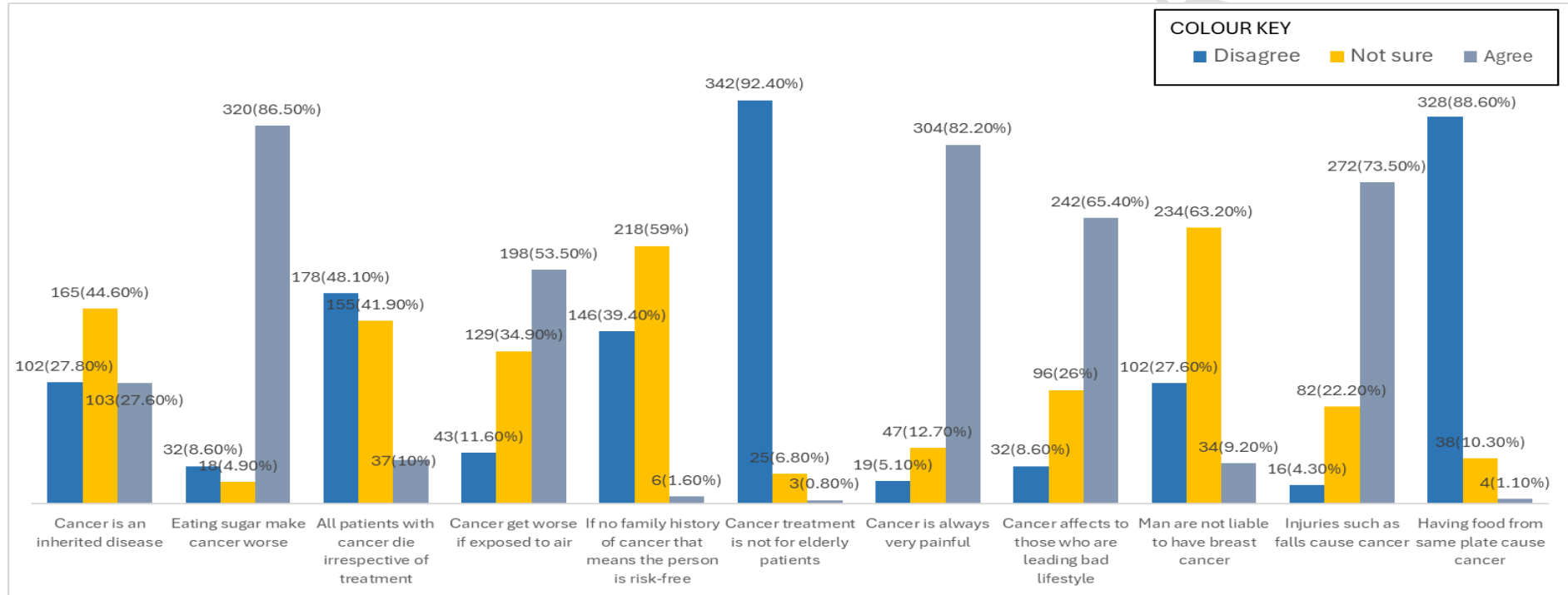
n = 370



**Fig- 1: Frequency and percentage distribution on myth of cancer among cancer patients**

Data depicted in figure-1 highlighted most common myths as of cancer spread through diagnostic needle biopsy after surgery, there is no cure for cancer, cancer is a death sentence, herbal/homeopathic products can cure cancer, every abnormal growth is cancerous, cancer occurs to bad, dishonest people or individuals who have done harm to others, cancer occurs by the curse of God or when God disowns someone, supernatural factors and ill fate influence cancer, and envy, black magic or witchcraft cause cancer.

n = 370



**Fig- 2:Frequency and percentage distribution on misconception of cancer among cancer patient**

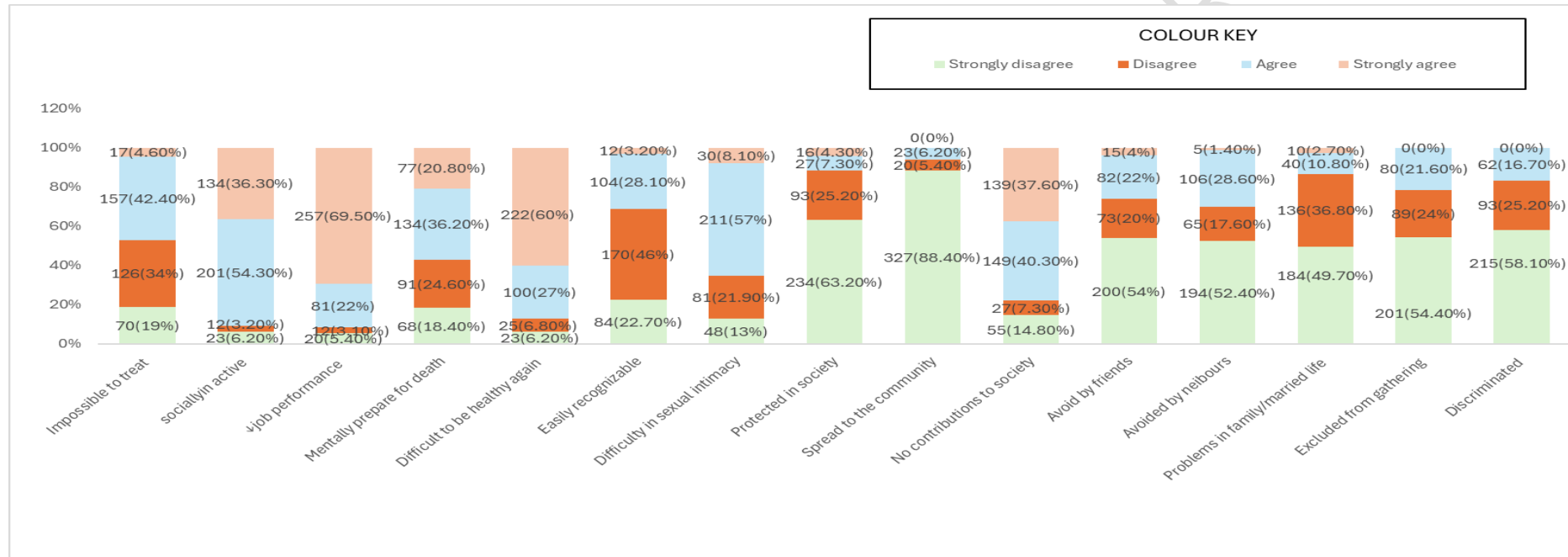
Figure 2 represented the most common misconceptions among cancer patients were eating sugar make cancer worse, cancer is always very painful, injuries such as fall can cause cancer, cancer get worse if expose to air. Other misconceptions among cancer patients were cancer is most

commonly an inherited disease and it runs in families, all patients with cancer die irrespective of treatment and male are not liable to have breast cancer.

UNDER PEER REVIEW IN IJAR

n = 370

Fig- 5: Frequency and percentage distribution on stigma of cancer



among cancer patient

Data depicted in figure-3 highlighted in impossibility of recovery domain most common stigmas were I would not be socially active once diagnosed with cancer, job performance at the workplace may decrease even after successful cancer treatment and it is very difficult to be healthy again once person is diagnosed with cancer. In stereotypes of cancer patients domain common stigmas were cancer patients are easily recognized by their look, cancer patients would have a difficult time having sexual intimacy and cancer patients unable to make contributions to society. In experience of social discrimination domain common stigmas were some neighbours tend to avoid interacting with me because of cancer, some friends avoid me because of cancer and I have been excluded from social gathering because of cancer.

## **Association between myth, misconception and stigma of cancer among cancer patients and selected demographic variables**

There is no existence of association between myth, misconception and stigma of cancer with demographic characteristics among cancer patients.

## **DISCUSSION**

The study was conducted to assess the myth, misconception, and stigma of cancer among cancer patients attending OPD for the first time in a selected oncology hospital, Kolkata. The findings of the study have been discussed with reference to the objectives and hypothesis stated with the findings of other studies.

**Related to demographic characteristics:** Majority 147 (39.7 %) of the patients belonged to the age above 60 years, 205 (55.4%) of the patients were female, 279 (75.4%) of the patients were married, 234(63.2%) of the patients resided at urban area. 108(29.2%) of the patients had passed higher secondary. 115(31%) patient's occupation was service/business. As per socioeconomic status, 202(54.7%) of the patients belonged to the upper-lower class. Majority 219(72.5%) of patients had no family history of cancer and majority 76(20.5%) of the patient's type of cancer was breast cancer. **Badihian S, Choi E K., et al; (2017)**, conducted across-sectional survey to assess attitudes toward cancer and cancer patients among 953 Urban Iranian populations. The mean age was 33.8 with a standard deviation of 11.7. Majority 74.7% of the participants were female, 59.3% were married, 59.6% were college or university graduates, 50.9% of participants were currently employed, and 57.4% of the participant's monthly incomes were below 15 million Iranian Rials.<sup>[2]</sup>

**Myth of cancer among cancer patients:** The most common myths where there is no cure for cancer, is a death sentence, herbal/homeopathic products can cure cancer, diagnostic needle biopsy and surgery contribute to the spread of cancer, every abnormal growth is cancerous, cancer occurs by the curse of God or when God disowns someone, supernatural factors and ill fate influence cancer, and envy, black magic or witchcraft cause cancer occurs to bad, dishonest people or individuals who have done harm to others. **Dardas LA, Ahamad MM., (2015)**, conducted a study on myths and misconceptions about cancer among 3174 Jordan. Almost 70% of the participants reported that when they think of death and consider it a hopeless diagnosis. The study

findings concluded the belief that cancer can be caused by exposure to a patient with cancer envy and witchcraft, which existed.<sup>[9]</sup>

**Misconception of cancer among cancer patients:** The most common misconceptions among cancer patients were eating sugar and expose to air make cancer worse, injuries such as fall can cause cancer. Another misconception among cancer patients was cancer is most commonly an inherited disease and so it runs in families, all patients with cancer die irrespective of treatment and men are not liable to have breast cancer. **Kaul p, Tiwari A R, Choudhary D., et al; (2022)**, conducted a cross-sectional study to assess the prevalent myths and misconceptions among the caregivers of patients with cancer. In this study total of 400 participants were included. The most prevalent misconception among the caregivers was that cancer is painful 45.5%. Other common misconceptions were cancer resulting from some form of injuries (22.8%), cancers occurring due to some sin/harm done to others (26%), and cancer spreading from one person to another (20.8%). Diagnostic needle biopsy contributes to the spread of cancer reported in as high as about 15.8% of the respondents.<sup>[8]</sup>

**Stigma of cancer among cancer patients:** Common stigma on the impossibility of recovery domain was not being socially active and very difficult to be healthy again once diagnosed with cancer, job performance at the workplace may decrease even after successful cancer treatment. Common stigma on stereotypes of cancer patient's domain was cancer patients are easily recognized by their look, cancer patients have a difficult time having sexual intimacy and cancer patients will be unable to make contributions to society. The most common stigma in the experience of social discrimination domain was some neighbors and friends tend to avoid interaction because of cancer and have been excluded from social gatherings because of cancer. **Badihian S, Choi EK., et al; (2017)**, conducted a cross-sectional survey to assess attitudes toward cancer and cancer patients among 953 Urban Iranian populations. 19.5% of participants agreed or strongly agreed that it is impossible to treat cancer regardless of highly developed medical science, (33.9%) of participants agreed or strongly agreed that it is very difficult to regain health after a cancer diagnosis, and 37.1% of participants agreed or strongly agreed that the workplace task ability of cancer patients may decrease even after successful treatment. 23.9% agreed or strongly agreed that cancer patients would have a difficult time being sexually intimate, 14.7% of participants agreed or strongly agreed

that cancer patients could be easily recognized by looking at them, and 5.5% agreed or strongly agreed that cancer patients would not be able to make contributions to society which are the concerning stereotypes. 88.9% agreed or strongly agreed that cancer patients deserve to be protected in society.<sup>[2]</sup>

**Association between myth, misconception, and stigma of cancer with selected demographic characteristics among cancer patients:** No significant association was found between myth, misconception, and stigma of cancer with selected demographic variables among cancer patients at 0.05 level of significance. **Dardas LA, Ahamad MM., (2015)**, conducted a study on misconception and myths on cancer. Gender, income, and education of the participants were significantly associated with holding misconceptions about cancer with causes and prognosis.<sup>[10]</sup> **Savas, Sevtap., et al; (2023)**, conducted a cross-sectional study where the result depicts that several factors associated with experiencing stigmas such as age, and socioeconomic status which does not support the present study due to different populations and settings.<sup>[10]</sup>

The present study result is not similar to this study due to different settings and populations.

## **CONCLUSION**

The study findings concluded that the most common myths are every abnormal growth is cancerous, cancer occurs to bad, dishonest people or individuals who have done harm to others, cancer occurs by the curse of God or when God disowns someone, supernatural factors and ill fate influence cancer, and envy, black magic or witchcraft cause cancer, diagnostic needle biopsy and surgery contribute to the spread of cancer, there is no cure for cancer, cancer is a death sentence, herbal/homeopathic products can cure cancer. Common misconceptions are eating sugar and expose to air make cancer worse, injuries such as fall can cause cancer. Another misconception among cancer patients was cancer is most commonly an inherited disease and so it runs in families, all patients with cancer die irrespective of treatment and men are not liable to have breast cancer. Common stigmas in impossibility of recovery domain were not being socially active once diagnosed with cancer, job performance at the workplace may decrease even after successful cancer treatment and it is very difficult to be healthy again once a person is diagnosed with cancer. Common stigmas of stereotypes of cancer patient's domain were cancer patients are easily recognized by their looks, have a difficult time

for sexual intimacy and cancer patients would not be able to make contributions to society. In experience of social discrimination domain common stigmas were some neighbours tend to avoid interacting because of cancer, some friends avoid because of cancer, and have been excluded from social gatherings because of cancer.

### **Acknowledgement**

I want to express my wholehearted gratitude to my research guide Ms. Chaitali Biswas, principal, of Tata Medical Center for her expert opinion, constant support, and encouragement in each step of the study. I owe her for her valuable suggestions, cooperation, and inspiration during the entire research study period. It was indeed a great experience to work under her guidance.

I want to extend my special thanks of gratitude to Ms. Sadhana Chattopadhyay for her guidance and motivation during the research study.

My sincere thanks go to Mr. Subir Sinha, Scientific Officer, Statistics, Tata Medical Center, Kolkata for helping me with the analysis and interpretation of the data and sparing his valuable time in clearing my doubts during the entire research study period.

I want to give special thanks to my parents, family members, classmates, and well-wishers for their unconditional love and constant support which helped in step toward my goal.

Last but not the least I am extremely grateful to the patients who participated in the study and whose participation made the study complete.

Ms.

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#### TITLE OF THE STUDY

A descriptive study to assess the myth, misconception and stigma of cancer among cancer patients attending OPD of a selected oncology hospital, Kolkata.

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