

## [Original Research]

# A Questionnaire-Based Study on the “Dame. Zettai. (Never. Ever.)” Drug Abuse Prevention Campaign and the Medical Use of Narcotic Agents

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**Abstract:** Pharmacotherapy for cancer pain is generally conducted in accordance with the World Health Organization recommendations, including the medical use of narcotics, such as morphine, for severe cancer pain. However, misunderstanding and preconception among the public has reportedly caused patients in Japan to be hesitant about the medical use of these drugs. The influence of the Dame. Zettai. (“Never. Ever.”) anti-drug abuse campaign (hereinafter Dame. Zettai. Campaign) may have contributed to this misunderstanding and prejudice. In this study, we examined the awareness and understanding of the Dame. Zettai. Campaign and the medical use of narcotics. We conducted an internet questionnaire survey targeting 3,000 men and women aged  $\geq 20$  years, excluding those assumed to have a specific understanding and knowledge of medical narcotics use. Regarding awareness of the medical use of narcotics, 74.5% (1,521 respondents) knew about the Dame. Zettai. Campaign and 62.2% (556 respondents) did not. Regarding the public’s impression of medical narcotics use, the proportions who answered “I think they are a last resort” and “they will gradually cease to be effective” tended to differ depending on whether or not the respondents knew about the Dame. Zettai. Campaign. This survey thus suggested that the Dame. Zettai. Campaign might affect the public’s perception and understanding of the medical use of narcotics. We believe that the results obtained from this study will provide important information to re-examine how to proceed with the future Dame. Zettai. Campaign. It is desired to verify whether there is a relationship between the level of awareness of the Dame. Zettai. Campaign and the level of understanding of medical narcotics in the future.

**Key words:** narcotic agents, drug abuse prevention, cancer pain, drug abuse prevention campaign, drug questionnaire survey

## INTRODUCTION

Cancer pain is present in 20% to 50% of cancer patients at the time of diagnosis and in 70% to 80% of all patients with advanced cancer.<sup>1)</sup> Pharmacotherapy for cancer pain is conducted in accordance with the World Health Organization (WHO) guidelines, which recommend opioids for severe cancer pain, including the medical use of narcotic agents such as morphine.<sup>2)</sup>

However, a survey conducted in 2006 by Morita et al. to assess the general public’s impression and understanding of the medical use of narcotics found that approximately 30% of respondents thought that medical narcotics would “cause addiction” or “shorten one’s

lifespan.”<sup>3)</sup> In addition, in a Cabinet Office public opinion survey in 2018, approximately 30% of respondents considered them to be “a last resort” or thought that they would “gradually cease to be effective,” while approximately 10% of respondents answered that they would “shorten one’s lifespan” or “cause mental illness.” Misunderstanding of and prejudice against the medical use of narcotic agents thus exists in a percentage of the general public in Japan,<sup>4)</sup> and the holding of these opinions by cancer patients and their families may discourage the use of medical narcotics, even if the patients are in pain.<sup>5)</sup>

In 2015, Suzuki addressed the influence of the Dame. Zettai. (Never. Ever.) drug abuse prevention campaign (hereinafter Dame. Zettai. Campaign), which was started in 1987, as a cause of the misunderstanding of and prejudice against the medical use of narcotic agents.<sup>6)</sup> The Dame. Zettai. Campaign is unique to Japan. The campaign is led by the Drug Abuse Prevention Center, a

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public interest incorporated foundation to promote measures to prevent drug abuse, together with national and prefectural governments and related organizations. The Drug Abuse Prevention Center was founded in 1987 with the aim of promoting knowledge about the adverse effects associated with the abuse of drugs such as narcotics and stimulants, and preventing their abuse.<sup>7)</sup>

In a factor analysis of the causes of misunderstanding about the medical use of narcotics conducted in 2015, Morohashi et al. reported that an analysis of drug abuse prevention campaigns was needed in light of their possible impact on the public misunderstanding of the application of narcotic agents for medical use.<sup>8)</sup>

No reports have dealt with either the Dame. Zettai. Campaign and the medical use of narcotic agents in the general population. We therefore conducted an internet questionnaire survey on the awareness and understanding of the Dame. Zettai. Campaign and medical use of narcotics.

## MATERIALS AND METHODS

### 1. Patients

Panel respondents registered with the research company, Rakuten Insight Co., Ltd., were sent an E-mail to request their participation in the drug questionnaire survey. A preliminary online questionnaire survey was then conducted with the panel respondents who consented to participate. The preliminary survey identified the respondents who met the inclusion criteria and none of the exclusion criteria. Rakuten Insight Co., Ltd. subsequently selected a random target of 3,000 people based on the following criteria, and conducted the main survey in these participants via an online questionnaire. The 3,000 participants comprised six groups (age 20s to 60s and  $\geq 70$  years old; male-to-female ratio of 1:1), with a target number of 500 participants per group. No information that could identify individual participants was obtained throughout the survey process.

### 2. Procedure

The inclusion criteria were as follows: 1) men and women living in Japan who were aged 20 years or older at the time informed consent was obtained; and 2) subjects who provided online consent. The following individuals, who were assumed to understand and/or have knowledge about the medical uses of narcotics, were excluded: 1) individuals with a history of or suffering from cancer or other malignant tumors; and 2) individuals with work experience or currently working in broadcasting, newspaper press, publishing, mass media; advertising agencies, marketing research companies, think tank organizations; hospitals, clinics, community pharmacies; and pharmaceutical manufacturers or wholesalers.

Because there has been no previous questionnaire survey on the awareness and understanding of the Dame. Zettai. Campaign and medical use of narcotics in the general population, the target number of respondents

for the survey was determined based on the 3,000 respondents surveyed in the Public Opinion Survey on the Cancer Prevention Measures, Public Relations Office of the Cabinet Office (January 2017).<sup>4)</sup>

The present study was planned in accordance with the Declaration of Helsinki and the Ethical Guidelines for Medical and Health Research Involving Human Subjects (partially revised on February 28, 2017), and was conducted in accordance with the study plan after obtaining approval from Yoyogi Mental Clinic Research Ethics Committee (approval number SNG211).<sup>9)</sup>

### 3. Preparation of the questionnaire

The questionnaire was prepared with reference to the Public Opinion Survey on the Cancer Prevention Measures, Public Relations Office of the Cabinet Office (January 2017).<sup>4)</sup> The questionnaire consisted of four questions: Question 1 concerned awareness of illegal drug use; Question 2 concerned awareness of the Dame. Zettai. Campaign and associated questions; Question 3 and its sub-questions addressed the awareness and perception of the medical use of narcotic agents; and Question 4 asked about the intention to use narcotics for medical purposes in patients with severe pain, such as cancer pain. The responses "I want to use them" and "I would rather use them" were amalgamated as "I want to use medical narcotics," and the responses "I do not want to use them" and "I would rather not use them" were amalgamated as "I do not want to use medical narcotics" (Fig. 1).

### 4. Statistical analysis

Data obtained from the online survey were analyzed using Raku-cross for Web provided by Rakuten Insight Co., Ltd.

## RESULTS

### 1. Respondent characteristics

The present survey was conducted from December 9 to December 11, 2020. A preliminary online questionnaire survey was administered to 7,980 panel respondents who consented to participate. A total of 7,047 respondents met all of the inclusion criteria and none of the exclusion criteria. The survey was conducted by Rakuten Insight Co., Ltd. until responses were obtained from a target sample of 3,000 randomly selected respondents. None declined to participate after completion of the questionnaire and there were no ineligible responses (Fig. 2).

### 2. Question 1: Awareness of illegal drug use

Of the 3,000 respondents, 97.9% ( $n=2,936$ ) answered that they were aware that illegal drugs must not be used (Fig. 3).

### 3. Question 2: Awareness of the Dame. Zettai. Campaign implementation

Of the 2,936 respondents who answered that they knew that illegal drugs must not be used (Q1), 69.6%

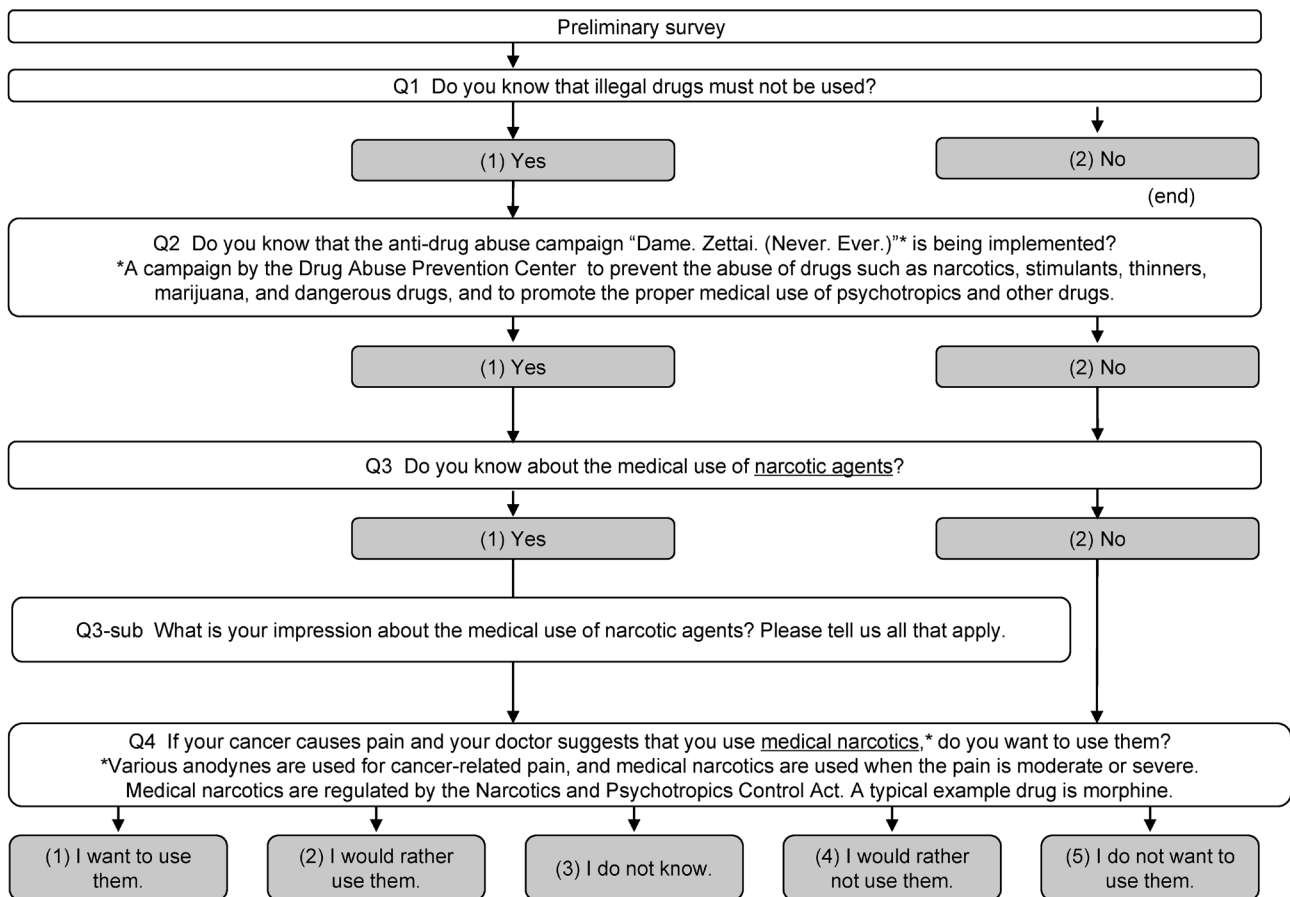


Fig. 1 Questionnaire flow chart.

( $n=2,042$ ) answered that they knew about the implementation of the Dame. Zettai. Campaign (Fig. 3).

#### 4. Question 3: Awareness of the medical use of narcotic agents

Of the 2,936 respondents who answered that they knew that illegal drugs must not be used (Q1), 70.7% ( $n=2,077$ ) answered that they were aware of the medical use of narcotic agents, including 74.5% ( $n=1,521$ ) who knew about the Dame. Zettai. Campaign and 62.2% ( $n=556$ ) who did not know about the campaign (Fig. 4).

#### 5. Sub-question 3: Perception of medical use of narcotic agents

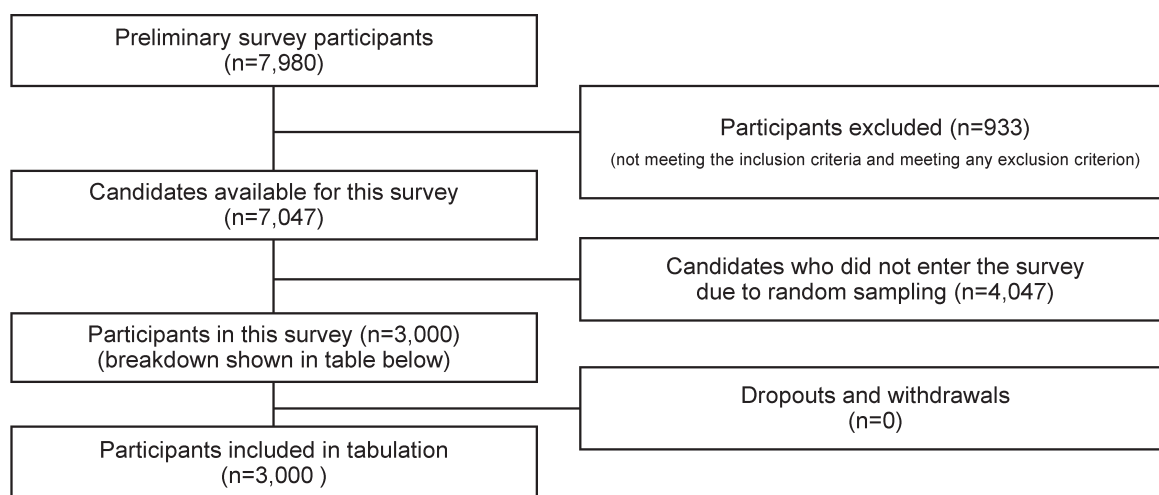
The 2,077 respondents who answered that they knew about the medical use of narcotic agents (Q3) were asked further questions. Multiple choice answers were allowed. Among those who knew about the Dame. Zettai. Campaign ( $n=1,521$ ) and those who did not ( $n=556$ ), 45.4% ( $n=690$ ) and 39.9% ( $n=222$ ), respectively, answered "They are safe if used properly," 32.8% ( $n=499$ ) and 36.5% ( $n=203$ ) answered "They are a last resort," and 15.7% ( $n=239$ ) and 19.8% ( $n=110$ ) answered "They will gradually cease to be effective." The proportions of answers tended to differ depending on the respondents' knowledge of the Dame. Zettai. Campaign (Fig. 5).

#### 6. Question 4

Among the 2,936 respondents who knew that illegal drugs must not be used (Q1), 47.0% ( $n=1,379$ ) answered "I want to use medical narcotics," 37.5% ( $n=1,101$ ) answered "I do not know," and 15.5% ( $n=456$ ) answered "I do not want to use them." Among those who knew about the Dame. Zettai. Campaign ( $n=2,042$ ), 47.7% ( $n=975$ ) answered "I want to use them," 35.6% ( $n=726$ ) answered "I do not know," and 16.7% ( $n=341$ ) answered "I do not want to use them." Among those who did not know about the campaign ( $n=894$ ), 45.2% ( $n=404$ ) answered, "I want to use them," 41.9% ( $n=375$ ) answered "I do not know," and 12.9% ( $n=115$ ) answered "I do not want to use them." There was no major difference in the proportions of responses regarding the intention to use medical narcotics depending on knowledge of the Dame. Zettai. Campaign (Fig. 6).

## DISCUSSION

A higher proportion of respondents who did than did not know about the Dame. Zettai. Campaign answered that "They are safe if used properly," reflecting the perception of correct understanding of their medical use. The proportion of respondents who answered that "They are a last resort" or "They will gradually cease to be effective," reflecting the perception of misunderstanding



Breakdown of participants in this survey by age group and sex

	Overall (n)	Male (n)	Female (n)
Participants in this survey	3000	1500	1500
≥ 20 to < 30 years	500	250	250
≥ 30 to < 40 years	500	250	250
≥ 40 to < 50 years	500	250	250
≥ 50 to < 60 years	500	250	250
≥ 60 to < 70 years	500	250	250
≥ 70 years	500	250	250

**Fig. 2** Survey participant flow chart and breakdown.

and prejudice, was lower among respondents who knew about the campaign. These results suggest that the Dame. Zettai. Campaign may be an opportunity to gain knowledge about medical narcotics.

To date, the Dame. Zettai. Campaign has primarily been carried out to emphasize the danger of the abuse of drugs such as narcotics and stimulants, without mentioning the necessary medical use of narcotic agents for cancer pain. Suzuki thus pointed out (in 2015) that the Dame. Zettai. Campaign may have contributed to misunderstanding of and prejudice against the medical use of narcotics.<sup>6)</sup> It was thought that medical narcotic agents would also be recognized as drugs that must not be misused or abused, in the same manner as illegal narcotics and stimulants, leading to misunderstanding of and prejudice against their medical use. However, the results of the present study suggest that the Dame. Zettai. Campaign may provide an opportunity to stimulate interest in and awareness of drugs, and a chance to learn about the medical uses of narcotic agents.

In addition, a high proportion of respondents to the current survey who knew about the Dame. Zettai. Campaign indicated that they would use narcotics for medical reasons. This suggests that awareness of the campaign

may have provided the opportunity to gain knowledge about the medical use of narcotics, leading to clearer decision-making.

The Cabinet Office public opinion survey also asked Q4, to which 3.6% of respondents in 2016 and 3.6% in 2018 answered "I do not know," which was significantly different from the 37.5% in the present survey.<sup>4, 10)</sup> The opinion survey conducted by the Cabinet Office interviewed 3,000 people aged 18 or older with Japanese nationality or aged 20 or older in person, which differed from the present survey which was conducted via the internet. This difference in survey methodologies might have contributed to the difference in response results. This internet survey was aimed at people who did not normally have access to information on medical narcotics. In addition, the answers were obtained on the condition that no information on medical narcotics was provided by the questioners. The major difference in the percentage of respondents who answered "I do not know medical narcotics" compared with the results of the Cabinet Office Opinion Poll may thus be attributable to differences in the survey methods used. Although further investigation and validation studies are needed, the Dame. Zettai. Campaign may provide a means to raise the general

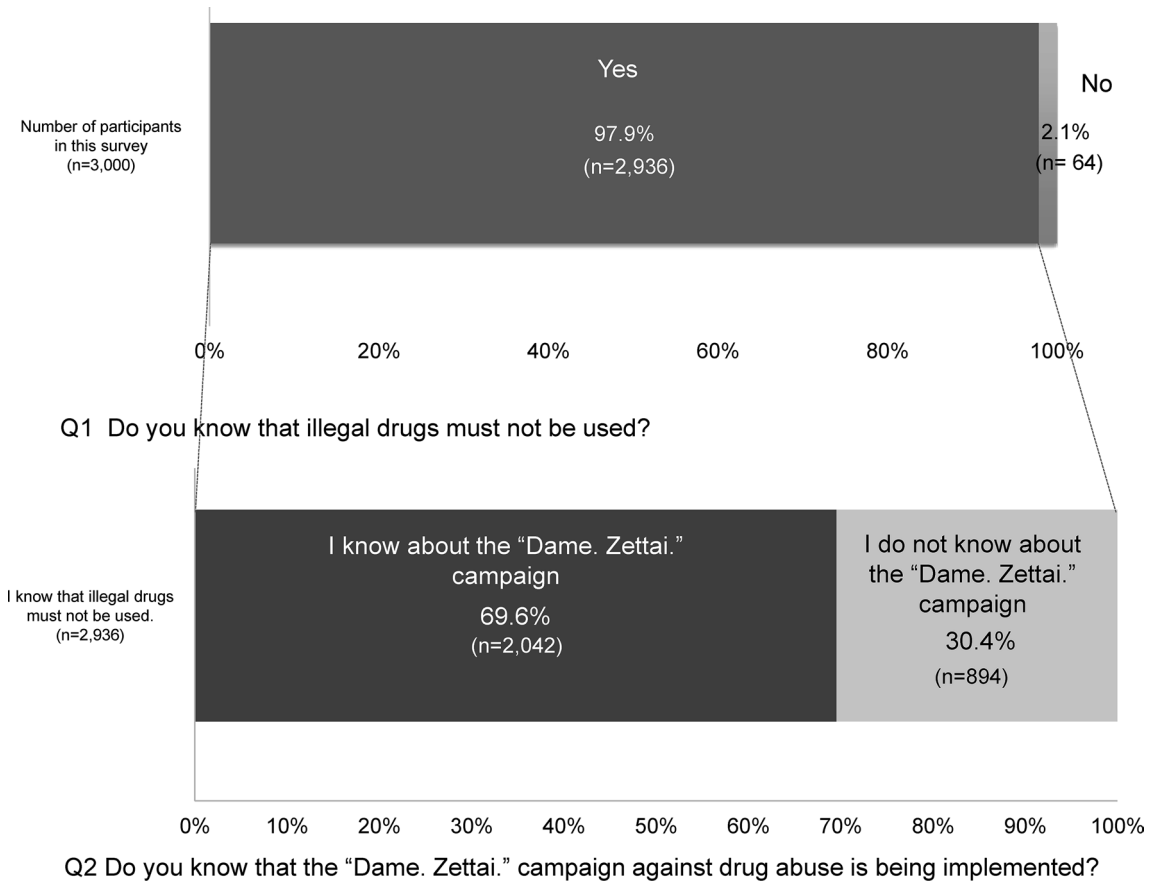
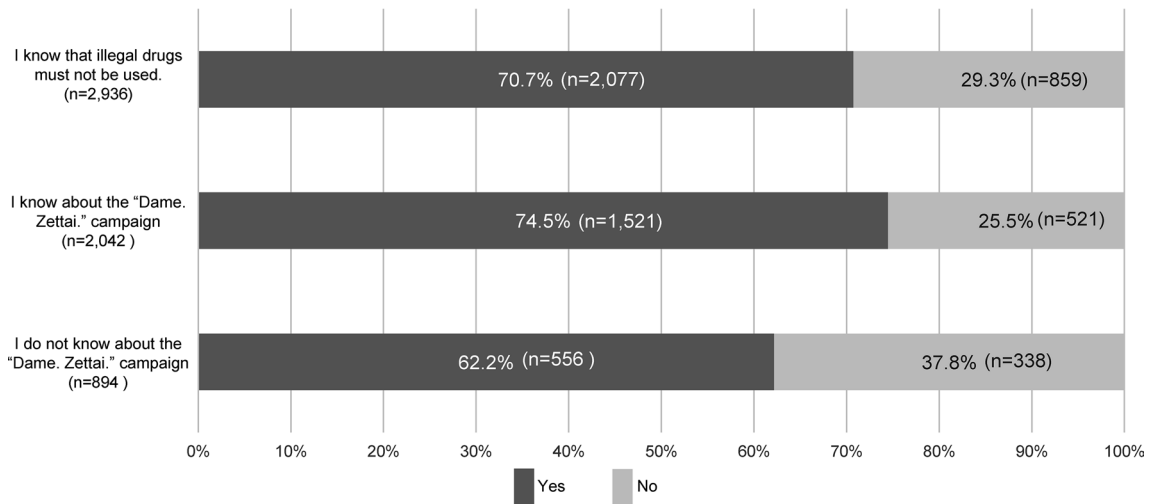
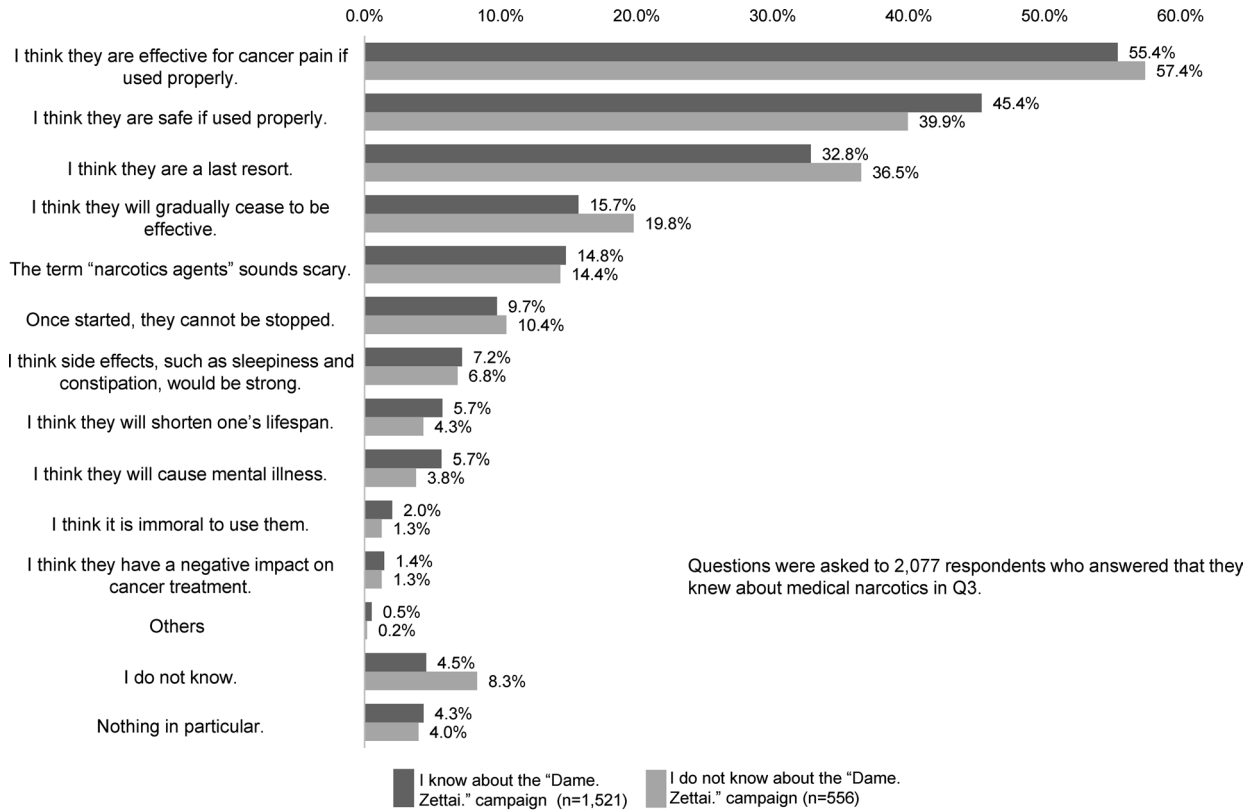


Fig. 3 Results of questions 1 and 2.



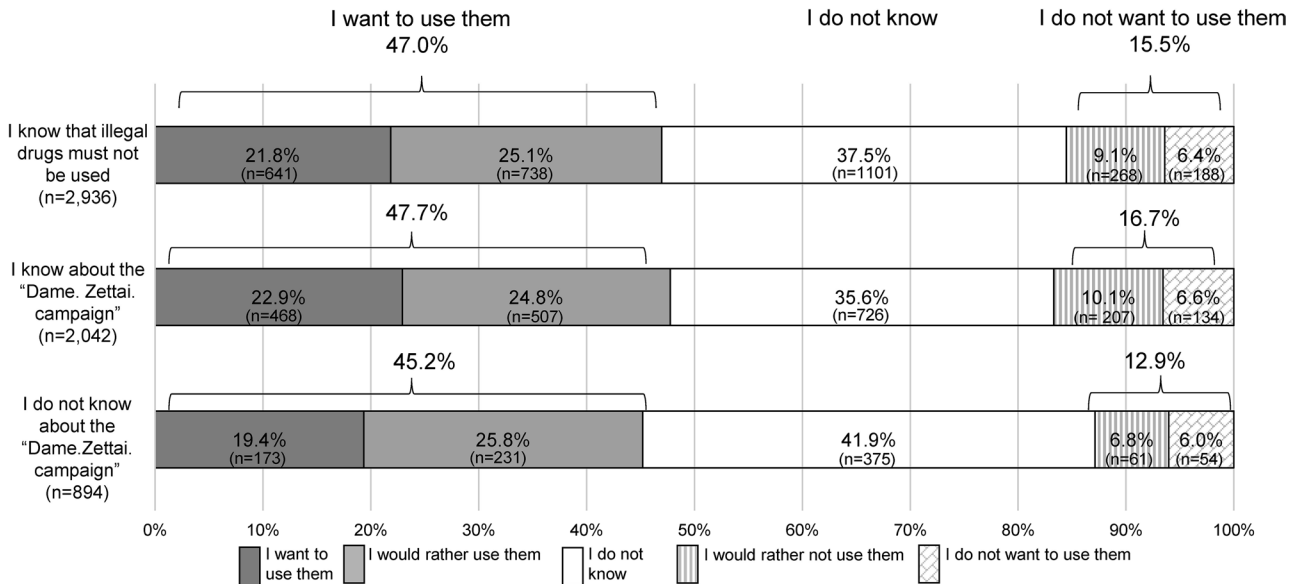
Q3 Do you know about the medical use of narcotic agents?

Fig. 4 Results of question 3.



Sub-Q3 What is your impression about the medical use of narcotic agents? Please tell us all that apply.

Fig. 5 Results of sub-question 3.



Q4 If your cancer causes pain and your doctor suggests you use medical narcotics, do you want to use them?

Fig. 6 Results of question 4.



public’s awareness of medical narcotics and communicate correct information about their proper use.

In line with an aging society, one in two persons suffers from cancer and one in three dies of cancer in Japan. However, cancer has recently become a disease that does not necessarily kill people, leading to a “society where cancer coexists.”<sup>11)</sup> To adapt to this type of society, the WHO guidelines published in 2018 and the Third Basic Plan to Promote Cancer Control Programs highlight the need to maintain and improve cancer patients’ quality of life during treatment, including the appropriate use of palliative care, including analgesia, from an early stage.<sup>12,13)</sup>

Although the awareness and proper use of narcotic agents for medical applications are being promoted for healthcare providers through the PEACE Project and seminars supervised by the Ministry of Health, Labour and Welfare, there are still few opportunities to provide accurate information on medical narcotics to non-medical professionals, including the general public.<sup>14)</sup> The Third Basic Plan to Promote Cancer Control Programs lists the promotion of the proper use of narcotic agents for medical purposes as one of the measures that should be taken, in addition to promoting awareness of the medical use of narcotics among the public, including patients and healthcare providers.<sup>15)</sup>

In the present survey of people aged 20 and over, almost all were aware that illegal drugs must not be used and approximately 70% were aware of the existence of medical narcotics. However, some misunderstanding about medical narcotics has persisted over the last few years. The Dame. Zettai. Campaign may help more people to understand the proper medical use of narcotic agents in the future. We believe that these survey results could be used to re-examine how to proceed with the future Dame. Zettai. Campaign. It is hoped that including information on the proper use of medical narcotics in this campaign, which is recognized by about 70% of the general population, will deepen peoples’ awareness and understanding of medical narcotics.

This study had some limitations. Because it was conducted using an internet questionnaire, the answers could not be verified, and it is possible that the answers were based on insufficient understanding or misunderstanding of the questions. In addition, the survey was limited to respondents who could use the internet, and may thus not be representative of the population as a whole.

This survey suggested that the Dame. Zettai. Campaign might affect the public’s perception and understanding of the medical use of narcotics. We believe that the results obtained from this study will provide important information to re-examine how to proceed with the future of the Dame. Zettai. Campaign. It is desired to verify whether there is a relationship between the level of awareness of the Dame. Zettai. Campaign and the level of understanding of medical narcotics in the future.

**Conflict of Interest:** Shinji Hasegawa, Yuichi Koretaka,

Hirokazu Mishima, and Hiroyuki Tanaka are employees of Shionogi & Co., Ltd. The other authors declare no conflicts of interest.

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Trial registration URL: <http://www.umin.ac.jp>; University Hospital Medical Information Network Clinical Trials Registry, UMIN000042688.

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