Comparison on Regional Current Status of usage of the Public Cremation Facilities through the Online Cremation Reservation Service of Funeral Information System: Focused on the Incheon Metropolitan City

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Abstract

As of 2016, Incheon Metropolitan City's cremation ratio was 91.2%, which is the second highest among all metropolitan municipalities nationwide (Busan Metropolitan City: 92.0%). In addition, the number of cremation at the outside of the jurisdiction has been steadily increasing since 2014. It is analyzed that the number of cremation at the inside of the jurisdiction is 16,004, which is 67.3% of total number of cremation, and the number of cremation at the outside of the jurisdiction is 7,779, which is 32.7%. We would like to suggest the following policy suggestions to solve the problems caused by the increase in cremation demand.

First, the number of operations of cremation in public facilities located in Gyeonggi-do adjacent to Incheon Metropolitan City is needed to be increased. Second, the extension of the time limit for the use of cremation facilities of the dead people at the outside of the jurisdiction is needed. Third, the charge for cremation at the outside of the jurisdiction has to be increased. Fourth, improvement measures such as relaxation of residency requirements for deaths at the inside of the jurisdiction, who used the public facilities in Incheon Metropolitan City, should be undertaken.

Keywords: Funeral Information System, Online Cremation Reservation Service, Cremation Demand, jurisdiction, the outside of the jurisdiction

1. Introduction

Article 4 (2) of the current "Act on Business, etc." stipulates that "Local governments should have a cremation facility that can meet the demand for cremation of local residents." However, among the 59 public cremation facilities in the nation, there are only three public facilities operated by local governments in the
metropolitan area, two in Seoul and one in Incheon. And there are only three among 31 provincial governments in Gyeonggi Province.

The nationwide cremation ratio of the South Korea rose from 38.5% in 2001 to 52.6% in 2005, making it the first time that the cremation rate has overtaken the burial rate, reaching 67.5% in 2010, 80.8% in 2015, and 82.7% in 2016[1]. The demand for cremation has been steadily increasing due to the increase in the nationwide cremation ratio and the increase in the number of deaths due to the increase in the elderly population from an aging society.

In recent years, in some metropolitan areas such as Seoul, Gyeonggi, Busan, Daegu, and other big cities, there has been a shortage of cremation facilities due to increased use of cremation using online cremation reservation service of residents in other areas, so social problems are being predicted.

In order to conduct a research on this situation, the Ministry of Health and Welfare has established a business information system for the unified online cremation reservation service for all of the nationwide cremation facilities, which is for Incheon Metropolitan City public cremation facilities that have highest cremation ratio among all metropolitan area local governments from January 1, 2011 to December 31, 2017. In addition, we conducted a survey on the use of public cremation facilities at Incheon Metropolitan City by local residents using online cremation reservation service.

The purpose of this study is to propose policy proposals to improve the efficiency of using the public cremation facilities by restraining and distributing cremation demand in Incheon metropolitan area.

2. Procedures for using the online cremation reservation service

The procedure for applying a cremation reservation to cremate the body of the deceased is as follows [1]. First, the bereaved family or agent accesses the business information system (www.ehaneul.go.kr) to inquire the reservation status of the corresponding cremation facility, and then selects application classification and cremation facility from General Body or Opening Remains or Dead Fetus, then chooses to consent to collect personal information. Second, enter the applicant's information and process the real name verification process. Third, put the information such as the name of the deceased, resident registration number, and so on. Fourth, enter the information such as nationality, name, resident registration number, etc. of the sponsor, and process the real name verification process. Fifth, choose cremation reservation date and time. Finally, when the cremation reservation is completed, the applicant receives the reservation number and SMS transmission of reservation information.

3. Incheon Metropolitan City cremation ratio and death status

3.1 Cremation ratio

According to the data from the Ministry of Health and Welfare, cremation of Incheon Metropolitan City is 91.2% in 2016, followed by Busan Metropolitan City (92.0%) among the nationwide 17 metropolitan municipalities that operating cremation facilities. As shown in Figure 1, the increase rate of the cremation ratio of Incheon Metropolitan City is 84.7% in 2011 and 91.2% in 2016, which is an annual average increase of about 1.7%. As of 2016, the cremation rate of Incheon Metropolitan City is 8.5% higher than the national average cremation ratio [2].
3.2 Number of deaths and use of cremation facilities

According to the statistics released by the National Statistical Office, as shown in Figure 2, the number of deaths in Incheon Metropolitan City has increased steadily from 12,504 in 2011 to 14,290 in 2017, an increase of about 2.4% per year [3]. In addition, Incheon Metropolitan City's use of cremation facilities through online cremation reservation service was analyzed from 17,924 in 2011 to 23,783 in 2017, an average annual increase of 5.4% [4]. As a result, the rate of use of public cremation facilities in Incheon has increased compared to the number of deaths.

4. Analysis of the usage status of Incheon Metropolitan City cremation facilities by using the online cremation reservation service

4.1 Overview

As shown in Figure 3, the current state of Incheon Metropolitan City cremation facility users by region during the period from 2011 to 2017, when the online cremation reservation service was launched nationwide, is classified into the jurisdiction of Incheon Metropolitan City and those outside of the jurisdiction of other regions [2].

As a result of the survey, the overall cremation status of Incheon Metropolitan City shows the irregular increase / decrease in the total number of cremation due to the rapid increase in the number of remodeled ashes in the year of leap month. The number of cremation at the jurisdiction has been on the increase since 2016, while the number of cremation at the outside of the jurisdiction has been steadily increasing since 2014.
In addition, as of 2016, the number of cremation of the jurisdiction was 16,004 (67.3%) out of the total number of cremation (23,783) and the number of cremation at the outside of the jurisdiction was 7,729 (32.7%).

4.2 Incheon Metropolitan City cremation facility status analysis by region

4.2.1 Death status at the jurisdiction

Figure 4 shows the usage status of Incheon Metropolitan City public cremation facility by online cremation reservation service for both dead at the jurisdiction and at the outside of the jurisdiction.

The number of cremation at the jurisdiction in Incheon Metropolitan City was increased from 2012 to 2014 due to the distribution of cremation demand for deaths at the outside of the jurisdiction due to completion of the Seoul Memorial Park, and the ratio of cremation to jurisdiction deaths was relatively increased. However, it is analyzed that the ratio of cremation at the jurisdiction deaths continues to decline from 2015 to the present.

4.2.2 Death status at the outside of the jurisdiction

Figure 5 shows that the ratio of cremation at the outside of the Incheon Metropolitan City was 32.6% in 2011
(the completion of construction of the second cremation facility in Seoul on January 16, 2012), which is a big proportion comparing to the number of the cremation at the jurisdiction. However, since the completion of the Seoul Memorial Park, the use of public cremation facilities in Incheon Metropolitan City of dead at the outside of the jurisdiction has decreased. In addition, the ratio of cremation for deaths at the outside of jurisdiction in 2017 was 32.7%, which is higher than before the construction of the memorial park in Seoul, where the number of cremation had increased greatly due to the cremation disturbance, and is pointed out as a big problem.

![Figure 5. Usage Status of Incheon Metropolitan City Public Cremation Facility by Death at the outside of the Jurisdiction](image)

5. Conclusion

The purpose of this study is to investigate the use of public cremation facilities in Incheon Metropolitan City, which is showing increasing tendency of using cremation facilities through online cremation reservation service among the local governments in metropolitan area. In order to solve the problems derived from the research results, the following policy proposals are proposed to improve the efficiency of cremation facility operation by restraining and distributing cremation demand of public facilities in Incheon Metropolitan City and improving the operation plan.

First, considering the increasing use of Incheon Metropolitan City's cremation facilities using the online cremation reservation service system, it is expected that if the cremation facilities are not supplied by the local governments in the metropolitan area, supply capacity is expected to reach its limit within the next five years. Therefore, in view of the fact that Incheon Metropolitan City has a high ratio of cremation in Gyeonggi Province, which is lacking in cremation supply facilities, the number of cremation operations in public facilities in Gyeonggi Province (Seongnam or Yongin) is currently 8 times [5] and it should be adjusted to 9 times to induce dispersion of cremation demand for deaths at the outside of the jurisdiction.

Second, by limiting the use time of Incheon Metropolitan City cremation facility to 12:00 of 6th cremation, it is necessary to decrease the cremation demand at the preferred cremation time by the bereaved family.

Third, dead at the outside of the jurisdiction that leaving in Gyeonggi Province cremation facilities uninstalled local autonomous community is the main causes of increasing cremation demand for public cremation facilities. Therefore, it is necessary to make a policy to distribute cremation demand by raising the cremation rate as considering the same 1 million KRW in cremation fee for outside deaths in Suwon City and Seongnam City.

Fourth, Incheon Metropolitan City limits the residency requirements for using public cremation facilities to those who have lived in Incheon Metropolitan City for at least six months and died. In response to this, according to Article 6 (1) of the 「Resident Registration Act」, it is necessary to relax the restrictions as 30
days or a maximum of 3 months, so that more inhabitants of Incheon metropolitan area are covered by the deaths at the jurisdiction, then improvements should be made to enable the use of cremation at low cost for deaths at the jurisdiction with high cremation demand.

References