

Indoor Air Fine Particular Pollution In Ulaanbaatar, Mongolia

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Background: Indoor air pollution is a major public health problem since people spend most of their lives in indoors. Indoor air pollutants vary depends on many factors, including climate, human activity, season, heating, and fuel consumption. There is a need to examine how the concentration of fine particulate matter or the main indoor air pollutant, fluctuates 24 hours a day concerning fuel combustion, and whether it varies depending on the type of dwelling, compared with previous studies.

Objective. The objective of the study was to compare 24-hour fluctuations of PM_{2.5} particles in the indoor and to them by type of dwelling.

Materials and methodology: The study was conducted in a cross-sectional design. The survey covered 179 apartments, traditional Ger and houses in 6 districts of Ulaanbaatar. The indoor fine particulate matter concentration was measured with the Dyllos DC1700 instrument in February 2020, and the portable instrument was installed in the living room of apartments and houses. The measurements were performed on the rear part of a traditional Ger and were carried out on a portable instrument at 5-minute intervals for 24 hours to analyze the data statistically.

Results: The mean 24-hours PM_{2.5} concentration was 66.45 µg/m³ for overall households, for Ger, dwelling and apartment were 63.75 µg/m³, 68.68 µg/m³, and 61.46 µg/m³ respectively. In the traditional Ger, the concentration of fine PM_{2.5} particulates has reached a peak between 7 AM to 11 AM (70-86 µg/m³) and between 7 PM to 8 PM (77-86 µg/m³) in the evening. The dwelling PM_{2.5} concentration was the highest (74-76 µg/m³) between 8 AM to 12 AM and at 8 PM (73 µg/m³). However, apartments with the central heating system were less fluctuation, but the particulate matter was high at 1 PM during the day (68 µg/m³) and at 11 PM during the night (66.7 µg/m³), especially at 10 PM to 11 PM, the concentration increased sharply compared to other hours. Compared to previous particulate matter studies (A.Enhjargal et al., Barn et al.), PM_{2.5} was higher in apartments and lower in Ger and dwellings.

Conclusion: The concentration of fine particles of traditional Ger, houses and apartments fluctuates 24 hours a day due to heating. However, there is little fluctuation in the apartment, but the concentration was increasing at certain hours due to the ventilation through the windows.

Keywords: Air quality, Indoor air pollution, Fine particles, Direct measurement, Dyllos DC1700.

Study of Medical Regulation of Euthanasia

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Background: Euthanasia is one of the most sensitive issues directly related to the right to life, and it is a topic that directly affects the social psychology of deciding whether a person will live or die in the future. As a component of multifaceted social relations, euthanasia is a complex concept that includes ethics, medicine, legal science, and religious and customary norms. The issue of euthanasia, which arises from the development trends and trends in legal studies in our country and abroad, has always been raised, but has not yet been resolved.

The Mongolian Health Law and other medical legal acts do not prohibit euthanasia, and the right to refuse treatment is openly regulated, but from a criminal point of view, euthanasia is prohibited under criminal law. For example, if a doctor performs euthanasia with the consent of a client or his / her relatives, he / she will be considered a criminal and sentenced to 8-15 years in prison under Article 10.1 of the 2015 Criminal Code of Mongolia. Moreover, the 2010 Supreme Court's General Interpretation states that the killing of a victim with the victim's consent should be categorized as such.

Currently, the following countries around the world support Active Euthanasia. These are: the Netherlands / 2002 /, France / 2004 /, Switzerland / 2005 /, Luxembourg / 2009 /, Canada / 2016 /, Belgium / 2014 /, Italy / 2018 /, Oregon / 1998 /, Montana / 2008 /, Washington / 2009 /, Vermont / 2013 /, California / 2015 /, Colorado / 2016 /, Germany / 2015 /, Colombia / 2015 /, Australia / 2019 /, and the number of countries supporting euthanasia is increasing year by year. There are also 60 countries in the world that have legalized inactive euthanasia, including India (2011), Israel (2005), South Korea (2016), and Mexico (2008), and Mongolia issued Order No. 446 on November 25, 2013. , guaranteeing the right to refuse service is the legalization of inactive euthanasia.

There has been no comprehensive medical and legal study to determine the knowledge and attitudes of physicians and caregivers of patients about the legal environment, and palliative care has been developed in Mongolia for 20 years. On the other hand, the development of a democratic society raises the issue of human rights at a time when human rights issues are on the rise.