Role Of Home Location In Fire Disaster Prevention Management

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Abstract

Location of home plays an important role in a fire disaster prevention management program. The objective of this management program is to determine the reduction in the number of fires by changing the home location from high to low fire potential. 21 volunteers are asked to participate in the survey. They visited 42 homes. From their experience and subjective opinion, the following results are obtained. The fatalities are reduced from 100 to 17 when the location of the home is changed from high history of low historical areas. Thus, it is concluded that statistically there is a significant reduction in the fatalities as shown below. The above conclusion is supported by the following statistical indicators. The p-score, one tailed t value, and standard deviation are 0.0%, 199.01 and 2.89 respectively.

Keywords: *Home Location, Fire, Disaster, Prevention Management*

A. INTRODUCTION

As per the American Red Cross fact sheet[1], nationally, the number of home fires has been on the rise in the number of fires increasing 8 percent since 2000. Only 26 percent of families have actually developed and practiced a working Home Fire Escape Plan[1]. Because of the above statistics, a fire disaster prevention management becomes essential in reducing the bad effects. In this management program reducing the number of fatalities due to fires plays an important role. The objective of this paper is to predict the role of home location in Fire Disaster Prevention Management.

B. LITERATUR REVIEW

As per reference 2, examples of some of common fire hazards are the following: Deteriorated batteries, cooking appliances, electronic and electrical equipment, unattended cooking, personal ignition sources such as matches, lighters, unprotected

combustible storage areas, household appliances, smoking, deteriorated electrical wiring, flammable materials, candles and other open flames, heating appliances, poorly maintained fireplace chimneys, heat generating equipment, equipment that utilizes combustible materials, and overloaded electrical systems[2]. In real life, the list is not limited to the above. Because of space constraints, Electrical Fires and candle safety issues only are elaborated as shown below. These are only examples and not a complete list. To minimize the risk of electrical fires, owners and users should survey electrical cables and plugs regularly. Also, this risk can be reduced through the use of three holes pronged outlets in comparison to two-pronged outlets, not dismantling three -holes prong off into a two-pronged outlet, and disposing of all cords or plugs that show signs of disintegration. To prevent these fires unused outlets must be covered with safety plugs or spring-latch covers should be installed in the presence of young children, running electrical cords underneath carpets must be refrained, do not use multi-outlet extenders, power bars, and surge protectors in an overbearing manner (to avoid overloading a single circuit),

hold a plug securely when removing from a wall (to avoid wearing the cord out orshorting a circuit, electrical shock, or spontaneous fire), separate electrical cords from sources of heat and water, and certified electrician service must be taken to install additional electrical outlets for the use of extension cords. To ensure appliance safety: defective appliances must be inspected by a professional; proceed correctly with manufacturer instructions and guides: unplug small appliances not being used; unplug small appliances before properly cleaning them, and; only purchase national standard association approved appliances. Inadequate wiring tends to be found in older homes and apartments, which pose electrical and fire hazard. When one's home has any of the following issues a certified electrician must inspect its electrical system: (1) upon noticing dimming of certain appliances, (2) Running multiple extension cords or plug

multiple cords into an individual outlet due to lack of outlets, (3) when small appliancsare slow to heats, (4) entering rooms in darkness resulting from lack of three- or four-way light switches, (5) limited furniture arrangement options for a closer electrical outlets range. An appliance must be unplugged before another is plugged in to avoid circuit breaking or fuse blowing.

C. METHOD

The propensity of the home fires and intensity of damage, in lives and dollars, was predicted based on a Field visit, Pattern Identification, Research, survey data, and weighted factors (depending on the importance of the variable) assigned to the variables as shown below. The city of Philadelphia has recognized locations of high history of fires in the city. Thus, it is concluded that statistically there is a significant reduction in the fatalities as shown below. The fatalities are reduced from 100 to 17when the location of the home is changed from high history of low historical areas. The above conclusion is supported by the following statistical indicators. The p-score, one- tailed t value, and standard deviation are 0.0%, 199.01 and 2.89 respectively.

D. CONCLUSION

Location of home plays an important role in fire disaster prevention management program. One of the important objectives of this management program is to determine the reduction in fires by changing the home location from high to low fire history one. The conclusion of this study is that the fatalities are reduced from 100 to 17 when the location of the home is changed from high to low fire history one.

The scope of this paper is strictly limited to gaining knowledge only. The author and the journal disclaim all other responsibilities. Do not use this paper for any other purpose except as an educational tool. Consult an appropriate licensed professional for any practical purposes.

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