

CHAPTER 1

INTRODUCTION

Fire is the result of a combustion or burning event involving the chemical reaction between oxygen, heat and fuel shown in Figure 1.1. The roles of fire are becoming important in domestic application for human throughout the era of evolution. However, improper use of fire in other ways may cause various severe consequences to life, property and environment. This is also known as fire hazard. On another word, fire hazard can be defined as a dangerous fire event that pose threats to life and property. The most common fire hazard is kitchen fire.

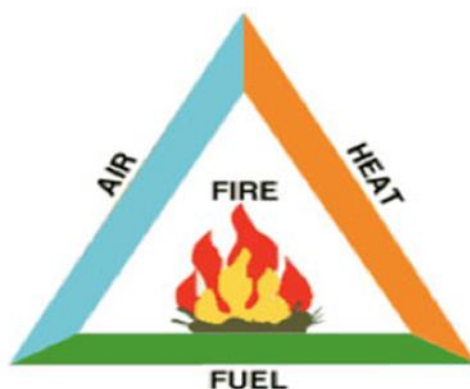


Figure 1.1: Fire Safety Triads

Source: O.R. Fire Safety. Cedars-Sinars. [Online Image]. (2017). Retrieved from:
<https://www.cedars-sinai.edu/Medical-Professionals/Resources-for-Physicians/Safety/OR-Fire-Safety/>

Fire and Rescue Department of Malaysia (FRDM) has reported that fire has cause structural destruction on an average of 6000 premises every year (Saharul & Rahim, 2015). There are forty percent of structural fire are contributed by private houses while

other buildings such as factories, offices, shop houses and schools are involved in the remaining sixty percent of the fire cases. This shows that residential fires is the major contributor to the fire accidents nationwide.

According to Malaysia Fire Statistics, structural fire leads to greatest financial loss and property damage (Saharul & Rahim, 2015). Electrical break circuit and unattended cooking are the major factors for residential fires. The occurrence of house fire are closely related to the level of awareness of the residents towards the fire safety practices in their house. Thus, in this study, a survey on fire safety practices among residents in the household area will be carried out in order to study the importance of fire safety aspects in the residential area.

1.1 BACKGROUND OF STUDY

Residential structural fire has large proportions of fire accidents which occur in the country. There are various factors associated with fire outbreaks. These factors are breakage of electrical circuit, unattended cooking, and absence of basic fire safety equipment in the house. In overall, these causes of house fires are largely dependent on arson. Arson is defined as an unintentional act of a person who ignited a fire in the residential building. It is also referred as human error which explain that fire cases at the household area are mainly due to the unsafe act or mistakes of the occupants in a house. On other words, arson has become the root cause of house fire as residents are possible to have lack of knowledge and practices regarding to fire safety at the residential area. So, it is essential to study the degree of awareness on fire safety practices and its knowledge among the residents in the household area.

National Fire Protection Association (NFPA) shows that home fires can leads to a serious impact on the human, property and environment (Saharul & Rahim, 2015). Physical injuries and death are possible to happen on the victims who suffer house fire. Victims are likely to suffer mental health problem such as post traumatic disorder especially those who have lost their love one in the fire accident. Besides, house fire causes damage to the property that build up a heavy financial burden to various authorities. It takes longer period of time to complete the construction of the house building but the building can be damaged by short time. The cost of repairs, recovery and reconstruction are very high after the fire accident. Also, house fires is an event which pose an adverse

impact on the environment. Fires that are possible to spread widely which increase the release of harmful gases and the rise of the surrounding temperature.

Residential building can be divided into several internal parts which are parlour, dining area, kitchen, bedrooms, toilet and garage. Every part has potential of being exposed to fire hazards. However, kitchen has the highest level of fire hazards in a house. It is because most of the activities being carried out in the kitchen are related to the use of fire such as cooking, boiling, grilling, steaming, baking and so on. Therefore, users of the kitchen should be familiar with the operation of the cooking appliances available at the kitchen. Other areas might also possible to cause fire accident when the basic requirement for fire safety are not met by the residents in the house.

1.2 PROBLEM STATEMENT

Fire accidents happened at the household area which lead to more deaths and injuries among the residents are common news nowadays (Rahim, 2015). The root cause for the rise of residential fire cases is mainly contributed by the residents themselves. Human errors increase the risk of fire accidents in the house. Although the results of accident investigation have been published in the public media which is easily expose to the residents, but they are still unaware the importance of taking fire safety practices at the first place to ensure house safety. The lack of knowledge regarding to the concept of fire safety at home may cause other occupants of the house building including children and elderly being exposed to fire hazard in the household area.

In addition, the behaviours of the residents can be an issue for house fire cases to occur. Residents may treat it as an inevitable disaster or unintentional mistakes that cannot be controlled once the fires started in a house. This causes them to remain passive in response to the fire hazards at the residential areas instead of taking approaches to prevent the fire occurrence proactively. It is closely related to the level of their understanding towards the context of house fire safety as well. Residents did not take basic safety practices at home seriously as it might be considered as less important and inconvenience to carry out daily activities. Thus, it is essential to further evaluate the level of awareness towards fire safety practices among residents in the residential building and initiate the efforts to improve their alertness in this field.