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Research Article

# A CROSS-SECTIONAL SURVEY TO DEVELOP AWARENESS ABOUT ADVERSE EFFECTS OF PASSIVE SMOKING AMONG MALES AND FEMALES OF VARIOUS AGE BRACKETS

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#### **Abstract:**

**Introduction:** An unintentional environmental tobacco intake is known as passive smoking which is a combination of other's exhaled tobacco of cigars and cigarette. The breathing of such smoke is known as passive smoking. There is significant health risk associated with intake of such tobacco relieved smoke among non-smokers depending on the amount of exposure to smoke.

**Objective:** The aim of this research was to develop and awareness among general masses about the associated risks and harms of passive smoking.

Methods: We carried out this cross-sectional research to collect data from general public through self-administered questionnaire at Mayo Hospital, Lahore from October 2017 to April 2018. The questionnaire consisted of the demographic information, family smoking habits and consumption of cigarettes in a day.

**Results**: About 80% population was aware about the adverse effects of passive smoking; whereas, remaining twenty percent were not that much aware or fully unaware of the its adverse effects. Mostly, the age bracket of 20 - 30 years was more aware about the adverse effects of passive smoking.

**Conclusion**: In comparison to various other age groups, we found that the age bracket of 20 - 30 years was more aware about the adverse effects of passive smoking.

**Keywords:** Awareness, Passive smoking, Effects, Cigarette, Cigar and Hazards.

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#### INTRODUCTION:

The risk of asthma, Risk of chronic obstructive pulmonary disease (COPD) increases in passive smoking. Exposure to secondhand smoke may increase the risk of cognitive impairment and dementia in adults 50 and over. Recent studies comparing women exposed to Environmental Tobacco Smoke and non-exposed women, demonstrate that women exposed while pregnant have higher risks of delivering a child with congenital abnormalities, longer lengths, smaller head circumferences, and low birth weight. (Wei,L 2013). Overall increased risk of death in both adults, where it is estimated to kill 53,000 nonsmokers per year, making it the 3rd leading cause of preventable death in the U.S and in children. The World Health Organization states that passive smoking causes about 600,000 deaths a year, and about 1% of the global burden of disease. (WHO website, 2015). According to US Surgeon General 2006 report, people are exposed to secondhand smoke at home, in the workplace, and in other public places such as bars, restaurants, and recreation venues. It is harmful and hazardous to the health of the general public and particularly dangerous to children. It increases the risk of serious respiratory problems in children, such as a greater number and severity of asthma attacks and lower respiratory tract infections, and increases the risk for middle ear infections. It is also a known humancarcinogen; cancer-causing agent.(US Surgeon General Report, 2006, 154). Inhaling secondhand smoke causes lung cancer and coronary heart disease in nonsmoking adults. Tobacco smoke contains over 4000 chemicals that are potentially toxic to humans. (Henderson 2008, 21.). Carbon monoxide decreases hemoglobin transport and saturation. Nicotine decreases prostacyclin synthesis and aggregation of thrombocytes in blood vessels, which leads to the narrowing arteria of the foetus, as well as neonates and infants (Gryczynska et al.1999, 276). Tager 2008, further explains that nicotine crosses the placenta freely and, in animal models that include primates, has profound effects on fetal lung development that range through altered glucose metabolism, inhibition of fibroblast proliferation, damage to type I epithelial cells, increased proliferation of type II cells, disruption of the elastin network and alterations in cell signalling with resultant decreases in apoptosis in the developing lung. All of these result in decreased numbers and enlargement of alveoli, emphysema-like changes and alterations in lung function. (Tager 2008)

The rationale of doing this research is to make people aware of the lethal effects caused by second hand smoking or passive smoking. In passive smoking the person sitting next to the smoker is equally affected so he is also on the edge of developing cancers, cardiovascular defects and respiratory problems. So for the sake of community it is important to make people aware that breathing in the atmosphere full of smoke can cause them health problems similar to that of a smoker. For making this world smoke free health education is most important. It is in the hands of a person to prevent himself from these lethal effects by educating his surrounding people and help society to make this world smoke free.

Research has linked secondhand smoke with child's dental hygiene. An article in the Good Housekeeping said exposure to secondhand smoke lead to a number of children who have developed cavities. The study, which appeared in the March 12 edition of Journal of American Medical Association, took data from the Centers for Disease Control and Prevention's Third National Health and Nutrition Examination Survey, showing that children who are exposed to secondhand smoke are nearly twice as likely to get cavities in their primary teeth to children who are not. A 2001 Texas Youth Tobacco Survey showed that half of 8,687 middle school students and two-thirds of 8,696 high school students reported secondhand smoke exposure within the 7 days preceding the survey. It is found that people who are the least exposed have the lowest disease rates; those exposed for the longest amount of time to the highest concentrations of smoke have the highest rates. Spouses of smokers, workers regularly exposed at the worksite, and people who frequent smoke-filled bars, restaurants, and casinos are at high risk. Of course, infants and children of parents and caregivers who smoke are at high risk as well. Exposure of babies and children to tobacco smoke in an automobile should never happen. In 2001, the Pan American Health Organization (PAHO) launched the Smoke-Free Americas Initiative to build capacity to achieve smoke-free environments in Latin America and the Caribbean. The finding of airborne nicotine in critical locations in Latin America provides a basis for enforcing smoke-free initiatives and for strengthening the protection of the public from unwanted exposure to secondhand smoke. A 2002 Survey showed that 3 out of 4 New Yorkers favor legislation to protect all workers from secondhand smoke in the workplace. The article also mentioned that more than 70 localities around the country already have banned smoking in restaurants and bars. A new California study concludes that vitamin C may help reduce oxidative stress in people exposed to secondhand smoke. But this study should not be interpreted to mean that vitamin C will prevent smoke-related heart disease or cancer.

#### Research Methodology

Study Design: Descriptive cross sectional study will

be done

Study Universe: Lahore

Study Population: General population of Lahore

Study Setting: Lahore

Duration of Study: Commencement time:  $6^{th}$  January,

2016. Completion time: 17th February, 2016

Sample Size: Estimated using WHO software S size and by using formula of estimating the population proportion with specified relative precision. At confidence level of 95 % with anticipated population proportion of 70% and relative precision of 10% the minimum sample size was taken as 100.

Sampling Technique: Simple random sampling

Study selection criteria:

Inclusion criteria: Those who are exposed to passive smoking having age group from 20-50 years

Exclusion criteria: Those who are unexposed to passive smoking include infants, mentally retarded people and the people of less than 20 years of age and more than 50 years of age.

**Data Collection Procedure**: Questionnaires will be handed out to the participants and their answers will be sorted out to analyze the different variables under study.

**Data Analysis and Compilation Plan**: By using SPSS software version-22 data will be

analyzed by using appropriate statistical techniques.

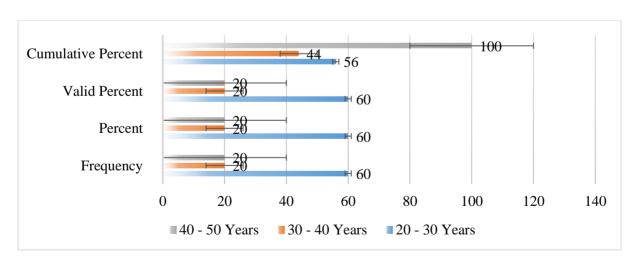
**Data Collection Tool**: A semi structured questionnaire (close ended and open ended questionnaire) will used to collect information from public

**Pretesting**: Before carrying out the actual exercise of data collection, questionnaire will be tested on 5 subjects on experimental basis to observe any deficiency in questionnaire and ensure its ethical and social acceptability

#### **RESULTS:**

**Table** − **I:** Age of population selected for the research

Respondents Age	Frequency	Percent	Valid Percent	Cumulative Percent
20 - 30 Years	60	60	60	56
30 - 40 Years	20	20	20	44
40 - 50 Years	20	20	20	100



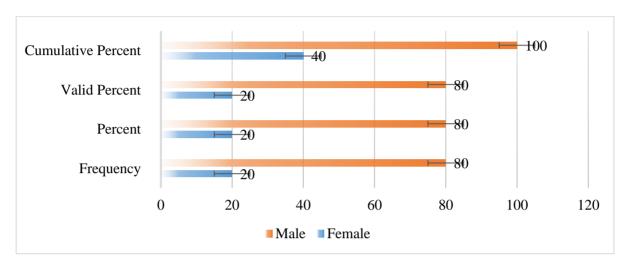
#### **Results:**

It states that:

- 60% people belongs to 20-30 years age group
- 20% people belongs to 30-40 years age group
- 20% people belongs to 40-50 years age group

**Table – II:** Gender percentage of representing population

Respondents Sex	Frequency	Percent	Valid Percent	<b>Cumulative Percent</b>
Female	20	20	20	40
Male	80	80	80	100



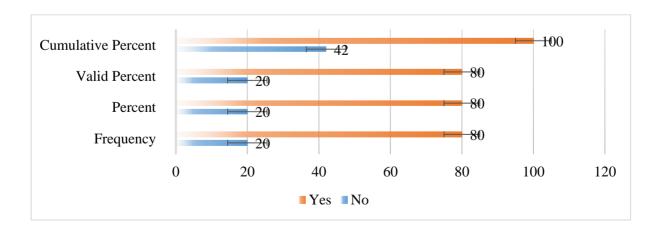
# **Results:**

It states that:

- 20% people were female
- 80% people were male

Table – III: Awareness in the community regarding Passive smoking

Awareness of Passive Smoking	Frequency	Percent	Valid Percent	Cumulative Percent
No	20	20	20	42
Yes	80	80	80	100



# **DISCUSSION:**

The study was conducted regarding the awareness of effects of passive smoking among the general population of Lahore. A group of 100 people were selected for the research that includes 80 % male respondents and 20 % female respondents. The output of the research shows that the population between the age group of 20 to 30 years is 60 % and the population between 30 to 40 years is 20 %. The population between 40 to 50 years of age is 20 %. According to conclusion of research study, 80% people are aware and 20% people are not aware about the harmful effects of passive smoking. People of age group between 20-30 years have more awareness about harmful effects of passive smoking as compared to other age group. The respondents divided into 3 different age groups. First age group consists of respondents between the ages of 20 to 30 years and second age group comprises of the respondents between the ages of 30 to 40 years. The third group has the respondents between the ages of 40 to 50 years old. The study also shows about the frequency of three different age groups. The first group between 20-30 years of age has the 60% of the total respondents and among them 50% are male and 10 % are female respondents. The second group of 30-40 years of age has the 20% respondents and among them 15% are male and 5% are female. The third group of 40-50 years of age has 20% respondents in which 15% are male and 5% are female. The respondents consist of both male and female participants. The respondents have 80% male frequency and 20 % female frequency. The results regarding awareness shows that 80% of the people are aware about it where as only 20% of the people are not aware about passive smoking. Also among the people who are aware, 70% are males and 10% are females and in non-aware people the percentage of male and female are 10 % respectively.

The Questionnaire has been formulated to know about the awareness about the passive smoking in which we address the occupation, living standard and exposure to smoking. The purpose of the survey is to know about how much the population of Lahore is aware of the effects of passive smoking and how many of them take the preventive measures to protect themselves from passive smoking.

The conclusion of the survey shows that majority of the community have the awareness about the passive smoking but they are ignorant about their health and reluctant to prevent themselves from passive smoking.

#### **CONCLUSION:**

Study conducted on awareness regarding the effects of passive smoking among general population of Lahore. 100 people were selected for study and study was conducted at Lahore by a team of 5 members and data was analyzed through SPSS-22 software. Our study concluded that 80% people were aware of effects of passive smoking, 20% people were not aware of effects of passive smoking, People of age group between 20-30 years of age have more awareness of effect of passive smoking as compared to other age groups.

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