Vaping E-Cigarettes: Challenges

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ABSTRACT

Electronic cigarettes are also referred as e-cigarettes. In order to reduce the Tobacco harm, Electronic cigarettes are introduced. It is a healthier alternative to quit smoking and works as a Tobacco substitute. By establishing proper quality and standards it can able to reduce the devastating effects of Tobacco. Electronic cigarettes are electronic devices consist of vaporized liquid. Recently health benefits are expected in smokers who switch from Tobacco to e-cigs. However, in some cases it is unknown fact whether vaping of e-cigs will reduce or enhance nicotine addiction. Health care community is responsible to face new challenges on e-cigarettes. Proper awareness on e-cigs should be globalized so that consumer health can be improved better.

INTRODUCTION

Electronic cigarettes are devices which often resembling cigarettes, pipes. These were designed to emit doses of vaporized nicotine. Earlier, cigarettes are made up of finely powdered tobacco leaves which were rolled in thin paper. Now, these are available as an alternative for smokers who can able to avoid smoke. Tobacco is the main ingredient in cigarettes [1-15].

CONSEQUENCES OF CIGARETTES

Approximately there are 600 ingredients are present in Cigarettes. They can create 7000 chemicals when they burnt. Among those, at least 69 chemicals are known to be carcinogenic. Not only it cause cancer it will cause serious health issues [16-30]. The major chemicals are Nicotine, Carbon monoxide and Tar. Nicotine is the strong poisonous drug which is an ingredient in insecticides. Tar is the oily materials which will sticks to blacken the Lungs. Carbon monoxide is the poisonous gas which interferes with respiratory and circulatory systems. Nicotine makes the people to get hooked with Smoking while the Carbon monoxide and Tar really do harms. Immediate damage occurs to arteries for Smoking. It slowly poisons the lungs and thereby weakens Immune system [31-55].

COMPONENTS OF ELECTRONIC CIGARETTES

Electronic cigarettes contain liquid nicotine in measured doses ranges from 0 mg to 25 mg. In this, smoke is replaced by clean vapour. Paper and filters are replaced by reusable lithium ion batteries. An electronic cigarette uses vapour and heat to vaporize liquid tobacco solution [56-70].

Rechargeable Lithium ion Battery
This is the main component and acts as a critical part for the Electronic cigarettes. A sensor is present inside the battery which acts when a person begins inhaling.
Nicotine cartridge
Cartridge is the main component which holds liquid nicotine. It appears as the mouth piece of the e-cigs, and the other end is connected to battery (Figure 1).

Atomization chamber
This atomizer is placed in between the Cartridge and Battery. Using small heating coil, atomizer heats the Liquid tobacco.

STATISTICS OF CIGARETTES USAGE

In recent years usage of e-cigarettes by youth has increased gradually[^71-85].

Table 1. Usage of e-cigarettes among different group of people nationwide

<table>
<thead>
<tr>
<th>Age group</th>
<th>2013</th>
<th>2014</th>
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<tbody>
<tr>
<td>11-14 years</td>
<td>1.1%</td>
<td>3.9%</td>
</tr>
<tr>
<td>14-18 years</td>
<td>4.5%</td>
<td>13.4%</td>
</tr>
<tr>
<td>25-44 years</td>
<td>15%</td>
<td>20%</td>
</tr>
</tbody>
</table>

Table 1 indicates e-cigarettes consumption has tripled in high school aged students[^86-98].

- In United States, over 20% of all deaths were caused due to Tobacco.
- Worldwide there are more than 600,000 Non-smokers die every year due to second hand smoke.
- In between 1990 and 2009, cigarette consumption is decreased by 26% in European countries whereas in African countries it was increased by 57%.

REFERENCES

51. Zaky EA. Second Hand Smoking and Pediatric Mental Disorders; is there a Link? A Commentary. Int Psychol J Sch Cog. 2015;S1:005.