Effects of Cigarette Smoking in Adults

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Abstract

First-hand cigarette smoking is known to result in adverse health effects in adults, influencing wellbeing physically and mentally. The most prevalent physical consequences are cardiovascular diseases, cancer of the throat and oral cavities, diseases of the bowel, eye, respiratory system, and reproductive system. Arguably, direct effects of tobacco smoking have been said to affect mental aspects of wellbeing such as depression, mood, and anxiety disorders. Undoubtedly smoking comes with many negative effects, but with implementation of smoking cessation strategies, it is possible to strengthen the overall health and wellbeing of smokers. As such, Health Canada recognizes the many health benefits associated with smoking cessation, by delivering health-promoting campaigns that strongly urge, it is not too late to quit.

The harmful effects of cigarette smoking are considered common knowledge in today's time. Smoking is repeatedly noted worldwide to be the leading cause behind preventable deaths (World Health Organization, as cited in Papathanasiou, Mamali, Papafloratos, & Zerva, 2014; Centers for Disease Control and Prevention [CDC], as cited in Papathanasiou et al., 2014). This literature review consisting of peer-reviewed journal articles, meta-analysis and government website findings and examines the harmful health effects of first-hand smoking in adults.

Health effects of smoking include physiological health consequences affecting many body systems, functions, and psychological impairments that hinder mental wellbeing and contribute to the development of mental illnesses. With all the harmful implications of smoking there are many benefits found by limiting cigarette smoking. Those intending to quit may find that using a multitude of therapies simultaneously can achieve optimal smoking cessation results. Furthermore, governments have been involved in motivating the public to quit by targeting smoking risk factors. Smoking without a doubt has health consequences of both the physiological and psychological nature, but nonetheless, there are still health promoting options available.

It is reported that everyday one hundred Canadians die from smoking (Health Canada, 2012b, Health Risks for People Who Smoke); unsurprisingly, due to the fact that cigarette smoke contains over four thousand chemicals, of which seventy of the chemicals are known to cause cancer, and at least twelve are associated with causing diseases and conditions (Health Canada, 2012c, Risks from Other Types of Tobacco). The poison in cigarettes can cause cells to mutate in the body ultimately leading to the development of cancer, and can simultaneously weaken the body's defense system (CDC, 2010). Cellular damage begins from the first moment of the inhalation of cigarette vapour. As the toxic vapour is carried through the mouth cilia, the hair-like protective lining of the throat, is attacked leaving the body vulnerable against foreign substance and resulting in an increase in mucus buildup and coughing (CDC, 2010). As the toxins pass into the lungs they change the lungs structural integrity, reducing its elasticity, and thus its ability to accommodate for air exchange necessary for breathing (CDC, 2010). Prolonged irritation of the lungs and its channels can result in respiratory diseases like chronic obstructive

pulmonary disease, chronic bronchitis, and pneumonia in addition to irreversible tissue death (CDC, 2010). Once the toxic chemicals are absorbed into the blood stream, they deform the heart muscles, creating inflammation and tissue death; the effects are similar to hypoxia, oxygen starvation of the tissues, which makes the heart's ability to pump blood difficult (Papathanasiou et al., 2014). The toxic effects of smoking further add to the heart's pumping overload by increasing overall fat concentration in the blood, resulting in narrowing of blood vessels and thickening of the blood (Papathanasiou et al., 2014). Obstruction of blood flow to the brain, heart, and legs can be lethal (CDC, 2010). As the persistence of smoking continues, uncontrollable formation of abnormal cells can results in the development of cancer. In the human body, cancer can develop just about anywhere. A report from the CDC (2010) noted that cancers that develop from smoking could occur in the mouth, nose, throat, larynx, trachea, esophagus, lungs, stomach, pancreas, kidneys, ureter, bladder, cervix, skin, blood, and bone marrow. Aside from the direct effects of smoking, indirect effects have been found to disrupt normal sleep patterns, which increases the risk of developing physiological illnesses (McNamara et al., 2014). The immense array of physiological harm possible is vast and at worst deadly; likewise the effect of smoking on psychological aspects cannot be undermined.

Mental illnesses are as concerning as physiological illnesses, as mental disorders have the potential to reduce life expectancy by up to eight years (Taylor, G., Greening, J., & Aveyard, P., 2014). Many habitual smokers claimed they engaged in smoking for its beneficial relaxation effects, however, the noted relaxation effects of smoking are found to be a false perception (Taylor et al., 2014, Stopping Smoking is Similar to Antidepressant Treatment). In fact, researchers have discovered that the

development of mood and anxiety disorders are two to three times more likely to occur in people who regularly smoke or heavily smoke (Mojtabai & Crum, 2013). These disorders include major depressive, dysthymia, manic episodes, anxiety disorders, panic disorders, post-traumatic stress disorders, depression (Dome, Lazary, Kalapos, & Rihmer, as cited in Mojtabai & Crum, 2013). The Desk Reference to the Diagnostic Criteria from DSM-5, points out that the development of an addiction alone is a form of mental illness, as brain chemistry is rewired to reward pathways(American Psychiatric Association, 2013). Futhermore, Papathanasiou et al. (2014) claim that smoking fumes contain highly addictive nicotine that resembles stimulant and depressant effects of morphine and cocaine. The stimulant and depressant effects occurring in habitual smokers are linked to the development of addiction, mood, and anxiety disorders (Dome, Lazary, Kalapos, & Rihmer, as cited in Mojtabai & Crum, 2013). In Canada, morphine and cocaine uses are highly restricted and rigorously monitored due to its addictive nature and destructive consequences, whereas, tobacco cigarette products that have similar addictive stimulant and depressant properties are easily attainable. The accessibility of obtaining tobacco smoke allows people of the opportunity to become a habitual smoker, which increases their likelihood of developing the associated mental illnesses. From a different angle, with smoking cessation, individuals have reported a decreased feelings of anxiety, stress, and depression, coupled with increased feelings of overall wellbeing (Taylor et al., as cited in Welyczko, 2014). The association between smoking and mood and anxiety disorders, strongly suggest smoking tobacco affects mental health negatively in individuals who choose to smoke habitually.

It is clear tobacco smoking brings about harmful effects that impact a person physiologically and psychologically

as such, to achieve a healthier wellbeing strong anti-smoking behaviour from the beginning is optimal, but a reduction in cigarette consumption for those who continue to smoke is ideal. However, for those who persist smoking, it may be beneficial to maintain other healthy lifestyle activities, including exercise and good eating habits (CDC, 2010). The benefits of smoking cessation are vast and many take effect immediately. After a duration of twenty minutes of smoking cessation, an individual will better regulate high blood pressures, after eight hours of non-smoking it will lower toxic carbon monoxides to appropriate levels, in twenty-four hours the likelihood of having a heart attack will decrease. Between two weeks to three months of quitting, breathing will improve; between one to nine months coughing will reduce. Furthermore, greater benefits exist with longer term smoking cessation. After a year of non-smoking the risk of heart disease is reduced by fifty percent, in 5 years there is no difference in stroke risks compared to non-smokers, in ten years the likelihood of dying from cancer is immensely decreased, and in fifteen years of smoking cessation there is no greater risk of developing coronary heart disease than non-smokers (Health Canada, 2012a, Health Benefits of Quitting). Moreover, smoking cessation has been found to have antidepressant effects similar to, if not better than, clinical antidepressant treatments (Taylor et al., 2014, Stopping Smoking is Similar to Antidepressant treatment). The health outlook for smoking cessation is hopeful and full of positive benefits, for a healthier life, it is never too late to stop smoking.

In the literature, it is recommended that a combination of strategies be used together for successful smoking cessation results; Mendelsohn, Kirby, & Castle (2015) recommended implementing drug therapies such as nicotine replacement therapy, peer support groups, and therapy with well-trained counsellors. In addition, CDC

(2010) believed healthy diets, active lifestyles, and perseverance are keys to success.

Besides one's determination, government policies are important factors in successful smoking cessation because they can initiate public awareness of the dangers of smoking by advertising health risks and anti-smoking tips. Globally, the use of health warning label (HWL) interventions are well recognized, particularly HWL with pictorial enhancements, which invokes greater emotional intensity of fear and disgust, increases the contents meaning, and likelihood of remembering the health risks (Wang, Lowen, Romer, Giorno, & Langleben, 2015). Canada is the first country in the world to regulate graphical HWL on the exterior of cigarette packages (Swayampakala et al., 2015). Later, in 2012, Canada enforced the inclusion of graphical HWL inserts with quitting tips inside cigarette packs, the smoking cessation tips acted as a source of motivation to quit as it was a method to escape the fear of the mentioned HWL health risks (Witte & Allen, as cited in Thrasher et al, 2014). This negative attitude equates to a seven-fold unlikelihood of becoming a routine smoker (Mojtabai & Crum, 2013). Other effective government interventions are smoking bans in public places and work environments, showing a more than double success quit rate (Shields, 2007). It is suggested that public smoking bans encourages people to adopt similar smoking restrictions in private homes, which in turn encourages quitting behaviours (Shields, 2007). Lastly, the government's decision to apply tax inflation to a dollar on tobacco products has resulted in a thirty-one percent decline in people becoming routine smokers (Mojtabai & Crum, 2013).

Tobacco smoking is considered one of the worst habits to engage in, it is ranked one of the leading causes of preventable deaths. Cigarettes contain toxic chemicals that are detrimental to physical and psychological health

in first-hand smoking adults. There are plenty of health benefits to quitting, with some of the effects beginning immediately, thus for health it is worth the efforts. Researchers have recommended using a variety of therapies for successful smoking cessation. To complement individual efforts, government policies have further promoted health through anti-smoking agendas, with evidence focusing on the risk factors of smoking, as demonstrated in HWL published on the exterior of cigarette packages and in inserts located inside the cigarette pack. Aryal & Bhatta (2015) suggested it might be beneficial to deter people from smoking by targeting people's skewed perception of smoking benefits rather than the risk of smoking. This may be another area where researchers can further investigate and implement public policies because, a smoke-free life, is a healthier life.

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