InternationalJournalofHumanitiesandSocialScienceInvention (IJHSSI)
ISSN (Online): 2319 – 7722, ISSN (Print): 2319 – 7714
www.ijhssi.org ||Volume8 Issue12 Ser. I || December 2019 || PP 24-29

Relationship of Tobacco and Health Related Quality of Life

Dr. Ashish Sharma*, Dr. Akanksha Goyal**, Dr. Sunita Agarwal***, Dr. Suman Bhansali****

** Reader, Department of Public Health Dentistry, RR Dental CollegeUdaipur, Rajasthan*
***Research Scholar, Department of Home Science, Rajasthan University, Jaipur,Rajasthan*
****Associate Professor, Department of Home Science, Rajasthan University, Jaipur, Rajasthan*
*****Professor & HOD, Department of Preventive and Social Medicine, S N Medical College, Jodhpur,Rajasthan*
Corresponding Author: Dr. Ashish Sharma

ABSTRACT: *Health-related quality of life (HRQoL) is a multi-dimensional concept that includes domains related to physical, mental, emotional, and social functioning. It goes beyond direct measures of population health, life expectancy, and causes of death, and focuses on the impact health status has on quality of life. A related concept of HRQoL is well-being, which assesses the positive aspects of a person's life, such as positive emotions and life satisfaction. Studies showed that their significant association between HRQoL and Tobacco consumption. The main aim of this review article is to explore relationship between tobacco consumption and Health related quality of life.*

KEYWORDS:*Tobacco, Health, Quality, Life.*

Date of Submission: 27-11-2019 Date of acceptance: 09-12-2019

I. INTRODUCTION

Health Related Quality of Life is one of several variables commonly studied in the field of medical outcomesresearch. It encompasses a wide range of human experience, including functioning andsubjective responses to illness.[1, 2]Contemporary interpretations of HRQOL are basedon the World Health Organization's definition of health as a state of complete physical, mental, and social well-being and not merely the absence of disease.[3]

Definitions of smoking

Tobacco smoking consists of drawing into the mouth, and usually the lungs, smoke from burning tobacco. [4]The type of product smoked is most commonly cigarettes, but can also include cigarillos, cigars, pipes or water pipes. 'Smokeless' tobacco is also popular in some parts of the world. This typically involves using tobacco preparations for chewing, sniffing into the nose or placing as a wad in the mouth between the cheeks and gums.[5] Smokeless tobacco use has features that are similar to smoking and can carry significant health risks;[5] however, this article focuses on smoked tobacco only as this has been the subject of by far the largest volume of research and is the most harmful form of tobacco use.

In India, tobacco consumption is responsible for half of all the cancers in men and a quarter of all cancers in women,[6] in addition to being a risk factor for cardiovascular diseases and chronic obstructive pulmonary diseases.[7, 8] India also has one of the highest rates of oral cancer in the world, partly attributed to high prevalence of tobacco chewing.[9–12] Forms of tobacco chewing include pan (piper betel leaf filled with sliced areca nut, lime, catechu, and other spices chewed with or without tobacco), pan-masala or gutkha (a chewable tobacco containing areca nut), and mishri (a powdered tobacco rubbed on the gums as toothpaste).

Tobacco effects not only oral cavity but the whole body. Smoking is an important risk factor for stroke, blindness, deafness, back pain, osteoporosis, and peripheral vascular disease (leading to amputation).[13] After the age of 40, smokers on average have higher levels of pain and disability than non-smokers.[13] Smoking in both women and men reduces fertility.[14] Smoking in pregnancy causes underdevelopment of the foetus and increases the risk of miscarriage, neonatal death, respiratory disease in the offspring, and is probably a cause of mental health problems in the offspring.[14]

From above, the harmful effects of smoking on health are well established. The physical consequences of the tobacco use have been extensively studied, and, more recently, its effects on mental health and well-being as well.[15] Some cross-sectional studies have already shown impairment in the quality of life of smokers when compared with non-smokers. [16-18] Research has found that a history of cigarette use is associated with poorer self-reported physical and mental health.[19-21]Some studies have found that recent quitters have the worst self-reported physicaland mental health while longer term quitters have similar health (especially mental health) as

those who never smoked.[19] In previous research,the magnitude of the differences observedin perceived health between subgroupswith varying histories of smoking hasranged from small to medium (0.20-0.50)effect sizes.

An important aspect of smoking is its association with health-related quality of life (HRQoL). Smoking not only kills, it affects individuals and quality of life too. In the UK, for example, it is estimated that 19% of all deaths in 2002 were due to smoking (27% in men and 11% in women) but it was also found to be directly responsible for 12% of disability adjusted life years lost in that year.[22] The main aim of this review article is to explore relationship between tobacco consumption and Health related quality of life.

II. REVIEW OF LITERATURE

Here is an account of various past studies which showed relationship between Tobacco and Health related quality of life (HRQoL).

In a study conducted by VoglM et al[17] to explore how Health related quality of life differ between smokers, ex-smokers and never-smokers in the English general populationby usinggenericinstruments such as EQ-5D. The study have used the 2006 round of Health Survey for England data (n = 13,241). The results showed that the observed difference of 0.1100 in EQ-5D scores between never-smokers (0.8839) and heavy-smokers (0.7739) reduced to 0.0516 after adjusting for biological, clinical, lifestyle and socioeconomic conditions. Heavy smokers, when compared with never-smokers, were significantly more likely to report some/severe problems in all five domains - mobility (67%), self-care (70%), usual activity (42%), pain/discomfort (46%) and anxiety/depression (86%). It was concluded that Smoking is significantly and negatively associated with health-related quality of life in English general population and the magnitude of this association is determined by the number of cigarettes smoked.

Another study conducted by Rezaei S et al[23]among general population in West Iran with an aim of assessing any association between smoking and health-related quality of life (HRQoL) among adults aged 18 years and above living in Kermanshah city, western Iran. A cross-sectional study was conducted on a total sample of 1,543 participants obtained by convenient sampling. The HRQoL of the study participants was assessed with reference to the EuroQol 5-dimensions-3-level (EQ-5D-3L). The mean EQ-5D indices were 0.69 ±SD 0.20, 0.70 ± SD 0.22, and 0.78 ± SD 0.16. The highest proportion of self-reported problems (including both 'some' and 'severe') were related to current, heavy smokers, with high nicotine dependence. Regression analysis indicated that current smokers had a significantly lower HRQoL compared to past smokers and never smokers ($p < 0.05$). The heavy smokers also had a significantly lower HRQoL score than moderate and light smokers ($p < 0.05$) and there was an inverse relationship between the HRQoL score and nicotine dependence ($p<0.05$). From above results it was concluded that The current smokers, heavy smokers, and high nicotine dependent smokers had lower HRQoL scores.

Study conducted by Emamvirdi R[24]to determine that physical education students, alcohol consumption and smoking as risk factors and sports as a healthy factor could affect HRQoL. This study was an analytical cross-sectional study. For our purpose, the subjects (n = 519) were asked to answer the SF-36 questionnaire (short form health survey for HRQOL). The results suggest that For smoking, significant differences were obtained from the scales of RE, vitality (VT), emotional well-being (EW), social functioning (SF), and general health (GH), in which nonsmokers outdid smokers. The combination of alcohol drinking and smoking led to statistically significant lower scores on the RE scale and strongly destroyed the role-emotional part of HRQOL. It can be concluded that smoking and alcohol consumption may be related to poor HRQOL in physical education and sports students despite the fact that they regularly engage in sports programs that could positively affect their HRQOL.

The research study conducted by Bellido-Casado J[25] to measure the short- or medium-term effects of tobacco use on the health-related quality of life (HRQOL) of smokers and ex-smokers, and to compare them with the estimated long-term effects. This was a cross-sectional epidemiological study conducted among 14 years general population. HRQOL was evaluated using the SF-36 Health Questionnaire. Differences in HRQOL among smokers, non-smokers, and former smokers were determined. Former smokers had a better HRQOL than smokers and non-smokers on the emotional dimensions, especially "vitality" and "role emotional". Smokers displayed deterioration in "bodily pain", "general health", "vitality", "social function", and "role emotional", while deterioration in ex-smokers only occurred in "bodily pain" and "general health." It was concluded that Short- and medium-range effects of tobacco consumption on HRQOL cannot be demonstrated with the SF-36 Health Questionnaire in the general Spanish population, whereas long-term effects can.

Hays RD et al[26]has conducted a study among Medicare Beneficiaries to determine associations between cigarette smoking, cancer, and self-reported physical (SF-36® Physical Component Summary Score, [PCS]) and mental health (SF- 36 Mental Component Summary Score,[MCS]). The study was conducted among Medicare beneficiaries age 65 or over enrolled in managed care plans.The study showed that significantly poorer health for current smokers and those who recently quit, regardless of their cancer status. Although

statistically significant, the differences between current smokers and never smokers were small among those with or without cancer.

In another study by Campbell B et al[27]conducted to examine relationships of smoking status and tobacco-related variables with health-related quality of life (HRQoL), a metric of disease burden, among clients in substance use disorders (SUDs) treatment. Participants (N = 2,068; 46.6% female) completed surveys reporting demographics, smoking status, and past-month days they experienced physical and/or mental healthdistress. Smokers (n = 1,596; 77.2% of sample) answered questions on tobacco-related variables.Multinomial regression models assessed relationships between tobacco-related variables (smoking status, nicotine dependence, menthol smoking, electronic-cigarette use, health concerns, andcost as reasons affecting reducing/quitting.smoking, past and future quit attempts) with HRQoL infour categories (good health, physical health distress, mental health distress, or both physical andmental health distress).The result of the study showed that Current smokers were more likely than former smokers to report frequent physical and mental health distress than good health (OR = 1.97, 95% CI = 1.16, 3.34), as were smokers with higher nicotine dependence (OR = 1.18, 95% CI = 1.03, 1.35). It was concluded that poor HRQoL among nicotine-dependent smokers with additional SUDs strengthen the imperative to provide smoking cessation interventions in addictions treatment.

In a study conducted by Charafeddine R et al[28]aimed at determining the gender and educational differences in the association between smoking and health-related quality of life in Belgium. Data was taken from2013 Belgian Health Interview Survey (n = 5668). HRQOL was assessed using the descriptive system of the EuroQol 5D-5L that consists of 5 dimensions and the resulting index score. The findings of the study showed that no significant association between smoking and HRQOL, and no effect modification by educational level. Among women, however, daily smokers have shown significantly lower HRQOL scores compared with never smokers, but only among females with a low and intermediate educational level. It was concluded that information on the association between HRQOL and smoking is useful for the development of smoking cessation interventions.

A 52-week randomized controlled trial of varenicline and bupropion sustained release (SR) was conducted by Hays JT et al[29] to assess the effects of treatment for tobacco dependence on the health-related QoL. The randomized controlled trial was conducted for 52 weeks. Subjects who smoked ≥10 cigarettes per day for the past year were randomly assigned to receive Varenicline 1 mg twice daily (n = 696), Bupropion SR 150 mg twice daily (n = 671) or placebo (n = 685) for 12 weeks and followed post-therapy for an additional 40 weeks. Health-related QoL was assessed using the Smoking cessation quality of life questionnaire at baseline and weeks 12, 24 and 52. The study stated that Health transition (perceived health compared with baseline) and self-control were both significantly improved among subjects receiving varenicline and bupropion SR compared with placebo at weeks 12, 24 and 52. Similarly, varenicline-treated subjects had significantly improved health transition and self-control compared with subjects who received bupropion SR at weeks 12 and 24, and at week 52 for health transition. It was concluded that treatment with varenicline and bupropion SR for smoking cessation resulted in improved self-control and health transition that was mediated in large part by continuous smoking abstinence.

In a study conducted by Chen PC et al [30]To assess the relationship between smoking status and health-related quality of life 1 year after participation in a smoking cessation programme. It was a Cohort study of smokers who voluntarily participated in a smoking cessation programme in a hospitals and clinics providing smoking cessation serviceswith two follow-up assessments of smoking status via telephone interview, conducted 6 months and 1 year after finishing the smoking cessation programme.The health-related quality of life of the participants was measured using an approved Chinese version of the EuroQol-5D-3L (EQ-5D-3L) descriptive system. The results of study stated that that long-term (OR=0.61 (0.48 to 0.77)) and short-term (OR=0.65 (0.54 to 0.79) quitters experienced less anxiety and depression than did continuing smokers.It was concluded that all quitters, regardless of whether they stop smoking for 6 months or 1 year, have better quality of life with regard to anxiety or depression.

A study by Lima et al[31] to evaluate the qualityof life of smokers and its correlation with smoke load andthe nicotine dependence level.Smokers of both sexesand with no diagnosis of clinical diseases were includedin this study.Thesample consisted of 48 individuals, 27 women and 21men. It was reported that there was a negative correlation between vitalityand the amount of years these individuals have smoked(p=0.009;r=-0.27), as well as the general health conditionand pack/years (p=0.02; r=-0.23), and the current numberof cigarettes consumed per day (p=0.006;r=-0.29). It was concluded that smokeload and the nicotine dependence levels were related toworse quality of life indices of the smoking population.

A study conducted by Kristina SA et al[32], to assess Health-related Quality of Life Among Smokers among YogyakartaProvince, Indonesia. A number of 561 male respondents was selected by convenience sampling. WHO-QoL BREFconsisted of 26 questions with 4 dimensions was delivered by trained interviewer. Nicotine dependence was measuredusing Fagerstrom scale consisted of 6 items. The results showed that Current

smokers had significantly poorerHRQoL than those who never smoked. Additionally, those who had high nicotine dependence were had more impairedHRQoL compared to low and moderate level of nicotine dependence. Respondents with low education, not employed,and physically inactive reported poorer HRQoL than their counterparts. It was concluded that there are relationships betweensmoking and HRQoL impairment. Lower HRQoL also reported among those who had high nicotine dependence, andothers socio-demographic factor.

A study conducted by Rajabi A et al[33] to assess the independent associations between smoking and HRQoL. It was a cross-sectional population-based study was conducted on a total sample of 2197 participants obtained by multistage sampling. The study was conducted in n the general population of southeast and southwest of Iran, aged 18–100 years in 2012–2013. Data were collected using a self-administrated of the 36-Item Short Form Survey (SF-36) questionnaire.Result showed that The mean HRQoL indices were for the current smokers 66.66 ± 17.86, and never smokers 71.35 ± 18.47 ($P < 0.001$). Independent associations between smoking and HRQoL were found, including negative associations ($P < 0.001$). The multivariate associations between smoking status and HRQoL, male smokers had a lower physical functioning, mental health, and total SF-36 score. It was concluded that smoking was independently related to HRQoL, with large differences according to the gender. This study showed that there is a significant difference in the quality of life related to health in male smokers compared to male non-smokers.

A study conducted by Bridevaux PO et al[34]to investigate the association between SecondhandSmoke andHRQOL among never smokers. A cross-sectional study was performed of 2500never smokers in Switzerland who participated in theSwiss Cohort Study on Air Pollution and Lung Diseasesin Adults and completed a 36-Item Short Form HealthSurvey (SF-36) in 2002. The results were stated that High SHS exposure predicted a greater reduction in HRQOL. Compared with nonexposed women, those with high SHS exposure at home had significantly lower scores on the physical functioning (-7.8, $P < .001$), role physical (-10.5, $P = .02$), bodily pain (-9.2, $P = .01$), and social functioning (-8.1, $P = .007$) domains. Exposed men had lower scores for the role physical domain (-20.0, $P < .001$) and a trend toward lower scores in other domains. In women, exposure to SHS at home was associated with a stronger negative effect on HRQOL than at work and in public spaces. It was concluded that Secondhand smoke is associated with reduced HRQOL, more significantly so in women. Exposure to SHS at home and high levels of exposure are associated with lower SF-36 scores, suggesting a dose-response relationship.

Coste J et al[35]conducted study among in the general population to assess the independent associations between smoking patterns and HRQoL and to identify any thresholdor non-linear tendencies in these associations.A national representative, cross-sectional household survey of the French general non-institutionalizedpopulation included 7525 men and 8486 women, aged 25–64 year in 2003.Scores on the eight subscales of the Medical Outcomes Study 36-item Short Form were the primary outcomes. Result showed that Independent associations between smoking and HRQoL were found, including small positive associations foroccasional or light smoking (up to 5 cigarettes per day), and larger and diffuse negative associations above this threshold.Much weaker associations and higher thresholds for negative HRQoL were found for women than for men. It was concluded that Independent associations between smoking and HRQoL were found, including small positive associations foroccasional or light smoking (up to 5 cigarettes per day), and larger and diffuse negative associations above this threshold.Much weaker associations and higher thresholds for negative HRQoL were found for women than for men. It was concluded that Smoking was independently related to HRQoL, with large differences according to the pattern and quantity ofsmoking, and to gender.

To assess the association between self-perceived health-related quality of life (HRQoL) andsmoking statusMcClave AK et al[36] conducted the study.data from 2006 Behavioral Risk Factor Surveillance System was used, USA participants in fourstates (n=17,800) to compare the HRQoL of current smokers who unsuccessfully attempted to quit(unsuccessful quitters), former smokers, and never smokers with the HRQoL of current smokers who madeno attempts to quit (non-quitters). The results reported in the study were that Overall, unsuccessful quitters were more likely than non-quitters to report frequent mentaldistress, physical distress, and pain but not frequent depressive symptoms; former and never smokers wereless likely than non-quitters to report frequent depressive symptoms. It was concluded that certain HRQoL characteristics were worse among smokers who unsuccessfully attempted toquit and better among former smokers than among smokers who made no attempts to quit.

Tian J et al[15] conducted a study with an aim to examine thelongitudinal relationshipbetween change in smoking statusand change in HRQoL in young adults.population-based cohort studywith data collected in 2004–2006 (aged 26–36) and2009–2011 (aged 31–41). Exposure was change in self- reported smoking status during follow-up. Outcomes werechanges in physical and mental HRQoL measured bySF-12. The results of the study showed that For physical HRQoL (n = 2080), quitters had a2.12 (95 % confidence interval (CI) 0.73, 3.51) pointimprovement than continuing smokers, whereas formersmokers who resumed smoking had a 2.08 (95 % CI 0.21,3.94) point reduction than those who maintained cessation.Change in smoking status was not

significantlyassociated with change in mental HRQoL (n = 1788). The study was concluded that Smoking by young adults was cross-sectionally associated with lower physical HRQoL and longitudinally associated with reductions in physical HRQoL.

Turner J et al[37] conducted a study to describethe impact of cigarette smoking on HRQL. A cross-sectional assessment of HRQL using the Medical Outcomes Survey Scale adapted for patients with human immunodeficiency virus (MOS-HIVquestionnaire) in 585 HIV-infected homosexual/bisexual men, injection drug users, and female partners enrolled in a multicenter, prospective study of the pulmonary complications ofHIV infection. Results in the study showed that Current smoking was independently associated with lowerscores for general health perception, physical functioning, bodily pain, energy, role functioning, and cognitive functioning (all with p, 0.05). The study concluded that patients with HIV infection who smoke have poorer HRQL than nonsmokers.

III. CONCLUSION

From above studies, it was concluded that tobacco consumption is significantly associated with Health related quality of life. Among tobacco consumers, Health related quality of life was poor than non-consumers, tobacco quitters and past smokers. In various studies different measuring tools were used but the results showed significant relationship between tobacco consumption and health related quality of life.

In the past, majority of study were crossectional in nature, more longitudinal studies are needed to determine different predictor of relationship. Better HRQoL scores among tobacco non-consumers and past smokers helps in motivating to quit tobacco.

REFERENCES

[1]. Patrick DL, Erickson P. Assessing health-related quality of life for clinical decision-making. In: Walker SR, Rosser RM, eds. Quality of life assessment: key issues in the 1990s. Dordrecht: Kluwer Academic Publishers, 1993:11–64.
[2]. Osoba D. Measuring the effect of cancer on quality of life. Boca Raton: CRC Press, 1991.
[3]. WHO. Constitution of the World Health Organization, basic documents. Geneva: WHO, 1948.
[4]. WHO. Tobacco or health: a global status report. Geneva: World Health Organization, 1997.
[5]. Gupta R, Prakash H, Gupta VP, et al. Prevalence and determinants of coronary health disease in a rural population in India. J Clinl Epidemiol 1997;50:203–9.
[6]. Padmavati S. Prevention of heart disease in India in the 21st century. Need for a concerted effort. Indian Heart J 2002;54:99–102.
[7]. Vora AR, Yeoman CM, Hayter JP. Alcohol, tobacco and paan use and understanding of oral cancer risk among Asian men in Leicester. Br Dental J 1997;188:441–51.
[8]. Franceschi S, Bidoli E, Herrero R, et al. Comparison of cancers of the oral cavity and pharynx worldwide: etiological clues. Oral Oncology 2000;36:106–15.
[9]. Moore SR, Johnson NW, Pierce AM, et al. The epidemiology of tongue cancer: a review of global incidence. Oral Diseases 2000;6:75–84.
[10]. Dikshit R, Kanhere S. Tobacco habits and risk of lung, oropharyngeal and oral cavity cancer: a population-based case-control study in Bhopal, India. Int J Epidemiol 2000;29:609–14.
[11]. West R, Shiffman S. Smoking cessation (3rd ed.). Abingdon: Health Press. 2016.
[12]. Critchley JA, Unal B. Health effects associated with smokeless tobacco: a systematic review. Thorax. 2003 May;58(5):435-43.
[13]. US Department of Health and Human Services. The health consequences of smoking: a report of the surgeon general. Atlanta, GA: US Department of Health and Human Services, Centers for Disease Control and Prevention, National Center for Chronic Disease Prevention and Health Promotion, Office on Smoking and Health. 2004: 62.
[14]. Action on Smoking and Health. (2013). Smoking and reproduction. London: ASH. Retrieved: from http://www.ash.org.uk/files/documents/ASH_112.pdf. Retrieved on 23.10.2019.
[15]. Tian J, Venn AJ, Blizzard L, Patton GC, Dwyer T, Gall SL. Smoking status and health-related quality of life: a longitudinal study in young adults. Qual Life Res. 2016;25(3):669-85.
[16]. Toghianifar N, Najafian J, Pooya A, Rabiei K, Eshrati B, Anaraki J, Sarrafzadegan N. Association of smoking status with quality of life in a cross-sectional population-based sample of Iranian adults: Isfahan healthy heart program. Asia Pac J Public Health. 2012;24(5):786-94.
[17]. Vogl M, Wenig CM, Leidl R, Pokhrel S. Smoking and health-related quality of life in English general population: implications for economic evaluations. BMC Public Health. 2012;12: 203.
[18]. Dube SR, Thompson W, Homa DM, Zack MM. Smoking and health-related quality of life among U.S. adolescents. Nicotine Tob Res. 2013;15(2):492-500.
[19]. Arday DR, Milton MH, Husten CG, Haffer SC, Wheeless SC, Jones SM et al. Smoking and functional status among Medicare managed care enrollees. Am J Prev Med. 2003 Apr;24(3):234-41.
[20]. Garces YI, Yang P, Parkinson J, Zhao X, Wampfler JA, Ebbert JO. The relationship between cigarette smoking and quality of life after lung cancer diagnosis. Chest. 2004 Dec;126(6):1733-41.
[21]. U.S. Department of Health and Human Services: The Health Consequences of Smoking: A Report of the Surgeon General. Centers for Disease Control and Prevention. Rockville, MD. 2004. Retrieved from: http://www.cdc.gov/tobacco/data_statistics/sgr/sgr_2004. Accessed on: 23.10.2019.
[22]. Allender S, Balakrishnan R, Scarborough P, Webster P, Rayner M: The burden of smoking-related ill health in the UK. Tob Control 2009; 18(4):262-267.
[23]. Rezaei S, KaramiMatin B, KazemiKaryani A, Woldemichael A, Khosravi F, KhosravipourM et al. Impact of Smoking on Health-Related Quality of Life: A General Population Survey in West Iran. Asian Pac J Cancer Prev. 2017 Nov 26;18(11):3179-3185.
[24]. Emamvirdi R, HosseinzadehAsl N, Colakoglu FF. Health-Related Quality of Life With Regard to Smoking, Consumption of Alcohol, and Sports Participation. Iran Red Crescent Med J. 2016 May 11;18(7): e27919.

[25]. Bellido-Casado J, Martín-Escudero J, Dueñas-Laita A, Mena-Martín FJ, Arzúa-Mouronte D, Simal-Blanco F. The SF-36 Questionnaire as a measurement of health-related quality of life: assessing short- and medium-term effects of exposure to tobacco versus the known long-term effects. Eur J Intern Med. 2004 Dec;15(8):511-517.
[26]. Hays RD, Smith AW, Reeve BB, Spritzer KL, Marcus SE, Clauser SB. Cigarette smoking and health-related quality of life in Medicare beneficiaries. Health Care Financ Rev. 2008 Summer;29(4):57-67.
[27]. Campbell B, Yip D, Le T, Gubner N, Guydish J. Relationship between Tobacco Use and Health-Related Quality of Life (HRQoL) among Clients in Substance Use Disorders Treatment. J Psychoactive Drugs. 2019 Jan-Mar;51(1):48-57.
[28]. Charafeddine R, Demarest S, Cleemput I, Van Oyen H, Devleesschauwer B. Gender and educational differences in the association between smoking and health-related quality of life in Belgium. Prev Med. 2017 Dec;105: 280-286.
[29]. Hays JT, Croghan IT, Baker CL, Cappelleri JC, Bushmakin AG. Changes in health-related quality of life with smoking cessation treatment. Eur J Public Health. 2012 Apr;22(2):224-9.
[30]. Chen PC, Kuo RN, Lai CK, Tsai ST, Lee YC. The relationship between smoking status and health-related quality of life among smokers who participated in a 1-year smoking cessation programme in Taiwan: a cohort study using the EQ-5D. BMJ Open. 2015 May 7;5(5):e007249.
[31]. Lima MBP, Ramos D, Freire APCF, Uzeloto JS, Silva BLM, Ramos EMC. Quality of life of smokers and its correlation with smoke load. FisioterPesqui. 2017;24(3):273-279.
[32]. Kristina SA, Endarti D, Widayanti AW, Widiastuti M. Health-related Quality of Life Among Smokers in Yogyakarta Province, Indonesia. IJPCR 2016; 8(1): 95-99.
[33]. Rajabi A, Arefnezhad M, Erfanpoor S, Esmaeilzadeh F, Arefnezhad M, Hasani J. Cigarette smoking and health-related quality of life in the general population of Iran: Independent associations according to gender. Cigarette smoking and health-related quality of life in the general population of Iran: Independent associations according to gender. Int J Prev Med 2019;10:188
[34]. Bridevaux PO1, Cornuz J, Gaspoz JM, Burnand B, Ackermann-Liebrich U, Schindler C et al. Secondhand smoke and health-related quality of life in never smokers: results from the SAPALDIA cohort study 2. Arch Intern Med. 2007 Dec 10;167(22):2516-23.
[35]. Coste J, Quinquis L, D'Almeida S, Audureau E. Smoking and Health-Related Quality of Life in the General Population. Independent Relationships and Large Differences According to Patterns and Quantity of Smoking and to Gender. PLoS One. 2014 Mar 17;9(3):e91562.
[36]. McClave AK, Dube SR, Strine TW, Mokdad AH. Associations between health-related quality of life and smoking status among a large sample of U.S. adults. Prev Med. 2009 Feb;48(2):173-9.
[37]. Turner J, Page-Shafer K, Chin DP, Osmond D, Mossar M, Markstein L et al. Adverse impact of cigarette smoking on dimensions of health-related quality of life in persons with HIV infection. AIDS Patient Care STDS. 2001 Dec;15(12):615-24.

Dr. Ashish Sharma "Relationship of Tobacco and Health Related Quality of Life" International Journal of Humanities and Social Science Invention (IJHSSI), vol. 08, no. 12, 2019, pp. 24-29