The Knowledge and Attitude Regarding Hazards of Tobacco Chewing among People of Early Adulthood at Selected area, Jaipur

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Introduction: The WHO report on the global tobacco epidemic, 2008 provides a comprehensive analysis, based on data from 135 countries, of patterns of tobacco use, the deaths that result and the measures to reduce deaths.7 Tobacco kills a third to a half of all those who use it. On average, every user of tobacco loses 15 years of life. **Objective:** The study aims to assess the knowledge and attitude of early adulthood people regarding the hazards of tobacco chewing and to find out the association between knowledge scores and attitude scores with the selected socio-demographic variable and the correlation between knowledge scores and attitude scores. **Material and methods:** It is a descriptive non-experimental study carried out among the early adulthood peoples study at (RIICO industrial area, Sitapur) at Jaipur, Rajasthan. A pilot study was performed on 10 early adulthood people to test the reliability and feasibility of the study. **Result:** The level of knowledge of early adulthood people which (33) 55% had poor knowledge, (18) 30% had average knowledge and (9)15% of them had good knowledge regarding hazards of tobacco chewing. the level of attitude of early adulthood people, in which (12) 20% had unfavourable attitude, (40) 67% had neutral attitude and (8) 13% of them had favourable attitude regarding hazards of tobacco chewing. **Conclusion:** This chapter deals with the analysis and interpretation of the results of the study. The data was gathered and analyzed by using descriptive and inferential statistics.

Keywords: Knowledge and Attitude, Tobacco Chewing, Oral mucosal fibrosis

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Introduction

Chewing of tobacco is in different forms such as Loose leaf tobacco is sweetened and packaged loose in aluminium-lined pouches. The chewer simply takes a portion directly from the pouch. This is the most widely available. Plug tobacco is press-formed into sheets, with the aid of a little syrup, mostly molasses, which helps maintain form as well as sweetening. The sheets are then cut into individual plugs, wrapped with fine tobacco and then packaged. Individual servings must be cut or bitten directly from the plug. Twist tobacco is spun and rolled into large rope-like strands and then twisted into a knot. The final product is much lower in moisture than a plug or loose-leaf tobacco, and historic varieties could be smoked in a pipe as well as chewed. This was the most common form of chewing tobacco in the 18th and 19th centuries. Tobacco bits are formed by rolling sweetened and typically flavoured tobacco into small pieces which are consumed individually. These are typically packaged in small tins like mints. Chewing tobacco, also called smokeless tobacco or snuff, contains over 25 carcinogens or cancer-causing agents. Chewing or smokeless tobacco contains nicotine a very addictive substance. Chewing allows nicotine, which is a drug you can become addicted to, to be absorbed into the bloodstream through the tissues in your mouth. You don't even need to swallow. Chewing tobacco and use of SLT products cause considerable staining of teeth among users. Discolouration of the teeth is a common complication of tobacco chewing. The stains bind and penetrate the enamel, dentin, and root surfaces causing a brown to black discolouration. Artificial dentures and prostheses are also discoloured by prolonged tobacco chewing. The coarse abrasives in tobacco products when constantly chewed cause abrasion or tooth wear. Chewing tobacco also increases the incidence of dental caries and thereby causes tooth loss. Epidemiology suggests tobacco users have 67 per cent tooth loss compared to non-users. The high content of sweetening and flavouring agents in tobacco products is responsible for tooth decay [1]. The World Health Organization predicts that tobacco deaths in India may exceed 1.5 million annually by 2020. However; considerable research is required to comprehend the actual trends. Nationally representative and reliable prevalence data on tobacco consumption are scarce. Similarly, the socio-demographic

Predictors of tobacco smoking and chewing are poorly understood. The existing studies on the prevalence of tobacco use are based on non-representative sample surveys or have been conducted in localised—mostly urban—geographical areas as reviewed. WHO estimated a prevalence of tobacco consumption of all forms at 65% and 33%, respectively, among men and women, based on small scale studies conducted in the past. [2,3] Smokeless tobacco users appear to have more gingival recession at facial sites than non-users, this finding corresponds to the location in the mouth where the smokeless tobacco lesions occurred and to where the tobacco was placed. Studies suggest that recession increased within one year in smokeless tobacco users. Oral cancer includes all cancers of the lips, tongue, gingiva, and all of the oral mucosa and oropharynx.[4]. **According to the world health organization (WHO),** During nearly the past two decades, overall global tobacco use has fallen, from 1.397 billion in 2000 to 1.337 billion in 2018, or by approximately 60 million people, according to the WHO global report on trends in the prevalence of tobacco use 2000-2025 third edition. This has been largely driven by reductions in the number using these products (346 million in 2000 down to 244 million in 2018, or a fall over around 100 million). Over the same period, male tobacco use had risen by around 40 million, from 1.050 billion in 2000 to 1.093 billion in 2018 (or 82% of the world's current 1.337 billion tobacco users). By 2020, WHO projects there will be 10 million fewer tobacco users, male and female, compared to 2018, and another 27 million less by 2025, amounting to 1.299 billion. Some 60% of countries have been experiencing a decline in tobacco use since 2010.[5] **NICPR-ICMR report-2018,** The use of SLT products, which include pan masala, gutkha and khaini, is a serious public health issue in India and the region. Globally there are nearly 36 crore SLT users. It said that around 80 per cent of these live in South-East Asia and 66 per cent in India and according to the latest Global Adult Tobacco Survey India Report nearly 20 crore Indians use SLTs. A 2010 study estimated that more than 36,8000 deaths were attributable to smokeless tobacco use in the country.[6].

Objective

The study aims to assess the knowledge and attitude of early adulthood people

Regarding the hazards of tobacco chewing and to find out the association between knowledge scores and attitude scores with the selected socio-demographic variable and the correlation between knowledge scores and attitude scores.

Material and Methods

It is a descriptive non-experimental study carried out among the early adulthood peoples study at (RIICO industrial area, Sitapura) at Jaipur, Rajasthan. A study was conducted during the year 2020 and 60 early adulthood people were selected by using the purposive non-probability sampling method. The tool develop and used for data collection contained Section A: Socio-demographic data consists of 05 variables, Section B: The section contains 32 structured knowledge questions related to knowledge of people of early adulthood regarding hazards of tobacco chewing, Section C: This section consists of 20 attitude scale statements both positive and negative statements. A pilot study was performed on 10 early adulthood people to test the reliability and feasibility of the study. In this study reliability of the knowledge, tool was done by using split-half reliability **Kuder and Richardson Formula 20 (KR-20) method** the result was 0.78 and the reliability of attitude scale was analysed by using **Cronbach alfa method** it was 0.82.

Criteria for selection of the samples: The study id delimited to-

- Samples aged 20-40 years of age.
- Samples willingly participated in the study.
- The only male will have participated.
- Samples knowing Hindi and English.
- Samples have chewing tobacco in routine life.

Development and description of tool: The tool develop and used for data collection contained Section A: Socio-demographic data consists of 05 variables, Section B: The section contains 32 structured knowledge questions related to knowledge of people of early adulthood regarding hazards of tobacco chewing, Section C: This section consists of 20 attitude scale statements both positive and negative statements. A pilot study was performed on 10 early adulthood people to test the reliability and feasibility of the study. In this study reliability of the knowledge, tool was done by using split-half reliability **Kuder and Richardson Formula 20 (KR-20) method**

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Scoring Criteria

Section B

- The maximum score is 32
- Each Correct response gets 1
- Each Incorrect response gets a zero

Table 1: Scoring criteria for knowledge score.

Scoring Criteria	Knowledge Score
25-32	Good knowledge
17-24	Average knowledge
0-16	Poor knowledge

Section C

Table 2: Scoring criteria of attitude score.

Response	Marks
Strongly agree on Agree	5
Undecided Disagree	4
Strongly disagree	3
	2
	1

Scoring Criteria	Attitude Score
>75	Favourable attitude
51-75	Neutral attitude
0-50	Unfavourable

Result

The finding is summarized as follows:

Knowledge level of early adulthood people : The level of knowledge of early adulthood people which (33) 55% had poor knowledge, (18) 30% had average knowledge and (9)15% of them had good knowledge regarding hazards of tobacco chewing.

Table 3: Frequency and percentage distribution of knowledge.

Category	Frequency (F)	Percentage (%)
Poor (0-16)	33	55%
Average (17-24)	18	30%
Good (25-32)	9	15%

Table no. 3 represents the level of knowledge people in early adulthood in terms of predecided categories i.e. 33(55%) majority of early adulthood

People were found to have a poor knowledge whereas only 9(15%) had a good level of knowledge regarding hazards of tobacco chewing and only 18(30%) were found to possess the average level of knowledge regarding hazards of tobacco chewing.

The mean, SD and mean percentage of aspects of knowledge of people of early adulthood regarding hazards of tobacco chewing. The present study shows that the highest mean score of subjects is 15.08 with an SD of 5.8 and a mean percentage of 47.12, which was obtained for knowledge regarding hazards of tobacco chewing. This indicates that people in early adulthood had poor knowledge regarding the hazards of tobacco chewing.Table no. 3 represents the level of knowledge people in early adulthood in terms of predecided categories i.e. 33(55%) majority of early adulthood people were found to have a poor knowledge whereas only 9(15%) had a good level of knowledge regarding hazards of tobacco chewing and only 18(30%) were found to possess the average level of knowledge regarding hazards of tobacco chewing.

Attitude score of early adulthood people: the level of attitude of early adulthood people, in which (12) 20% had unfavourable attitude, (40) 67% had neutral attitude and (8) 13% of them had favourable attitude regarding hazards of tobacco chewing.

Table 4: Frequency and percentage distribution of attitude.

Category	Frequency (F)	Percentage (%)
Unfavorable (0-50)	12	20%
Neutral (51-75)	40	67%
Favorable (>75)	8	13%

Table no. 4 represents the attitude of early adulthood people regarding hazards of tobacco chewing in terms of predecided categories i.e. 40(67%) majority of early adulthood people were found to have a neutral attitude were as only 8(13%) had a favourable attitude regarding hazards of tobacco chewing and only 12(20%) were had an unfavourable level of attitude regarding hazards of tobacco chewing.

Mean, SD and mean percentage of the attitude of people of early adulthood regarding hazards of tobacco chewing, the overall mean practice score of the subject is 56 with SD of 11.37 and mean percentage is 56 for attitude related to hazards of tobacco chewing among people of early adulthood.

Association of the level of attitude with selected demographic variables among people in early adulthood

The Chi-square test was carried out to determine the association between the Attitude score with selected demographic variables such as age, religion, education, monthly income, type of family and any one of the family members who are having the habit of using tobacco.

There is no significant association between the attitude of people in early adulthood and demographic variables such as age in years ($\chi2=10.00$), religion ($\chi2=3.88$) and educational status ($\chi2=4.17$) are not significant at a 0.05 level of significance. Hence hypothesis $H02$ is rejected and null hypothesis $H2$is accepted.

There is a significant association between the attitude of people in early adulthood and demographic variables such as monthly income ($\chi2= 20.36$), type of family ($\chi2=24.41$), and family members using tobacco ($\chi2= 16.38$), at 0.05 level of significance. Hence hypothesis $H2$ is accepted and null hypothesis $H02$ is rejected.

Finding related to Correlation between knowledge and attitude of people of early adulthood.

Correlation value	Type of correlation	Tabulated value	Result
0.17	Positive negligible	0.250	No Significant

DF- Degree of freedom =58

Level of significance=0.05

It evidenced that for the correlation between knowledge and attitude calculated value of Karl Pearson's correlation coefficient is 0.17 and the tabulated value of the correlation coefficient is 0.250 for df 58 at a 0.05 level of significance.

So the researcher accepts the null hypothesis and rejects the research hypothesis.

Discussion

Bhatia S et al (2016) in their study The insight for initiation and Maintenance of Areca nut chewing Habit and its effects on oral health status among school-age included a total of 2846 students were divided into two groups. Groups 1 and 2, comprising of students from 4 to 10 years and 11 to 18 years respectively. A total of 34.5% of children in

Group 1 and 72.8% in group 2, were indulged in the habit of chewing areca nut. A total of 55 subjects were diagnosed at various clinical stages with Oral Submucosa Fibrosis (OSMP).[7].

Mahapatra S et al (2015) conducted a study on To study the risk of oral cancer associated with gutka consumption and other tobacco products." A case-control study of 134 cases and 268 controls, univariate logistic regression followed by multivariate logistic regression was done for identifying the risk factors and adjusted for the confounding variables. Analysis showed that gutka (<0.001, OR = 5.1 95% CI = 2.0-10.3), chewing tobacco (P < 0.001, OR = 6.0 95% CI = 2.3-15.7), supari (P < 0.001, OR = 11.4 95% CI = 3.4,38.2), bidi (P < 0.05, OR = 2.3 95% CI = 1.1-4.8) and alcohol (P < 0.001, OR = 3.7 95% CI = 1.8-7.5) had strong association with oral cancer.[8]

Basuki B et al (2014) did a study aimed to determine the association between tobacco consumption(kretek) and betel quid chewing with oral cancer risk." A total of 81 cases of oral cancers were matched with 162 controls in this hospital-based study. Slightly more than half of the cases (55.6%) were smokers and 88.9% of them smoked kretek. The prevalence of betel quid chewing among cases and control was low (7.4% and 1.9% respectively). Chewing of at least one quid per day and a quid combination of betel leaf, areca nut, lime and tobacco conferred a 5-6fold increased risk.[9].

Tsai WC et al (2013) conducted a study on Areca nut chewing and the risk of atrial fibrillation. 375,360 males (mean age, 44 years old), 1,326 (0.35%) were diagnosed with AF. The higher the areca nut chewing rate, the higher the prevalence rate of AF (Spearman correlation coefficient r=0.558, p=0.007). The adjusted odds ratio for areca nut chewing was 1.02 (95% CI=1.00-1.04) in risk of AF prevalence.[10].

Akhtar S (2013) Kuwait conducted a study on Areca nut chewing and esophageal squamous cell carcinoma risk in Asians. Meta-analysis of 12 case-control studies (2,836 cases; 9,553 controls) showed that areca nut chewing with a risk of esophageal squamous cell carcinoma (OR(RE) = 3.05; 95% CI 2.41, 3.87). Additive interaction between areca nut chewing and tobacco smoking increased the risk of esophageal squamous cell carcinoma among those who indulged in both the practices compared with those who practised none (OR(RE) = 6.79; 95% CI 4.71, 9.79).[11].

Dikshit M et al (2012) did a study under the title, Risk for oral cancer associated with smoking, smokeless and oral dip products. In a case-control study of 350 cases and 350 control, the frequency of smoking, smokeless and oral dip products in cases were significantly higher than in controls (P < 0.0001). Among smoking types, bidi (P < 0.0001, OR = 4.1 95% CI = 2.4-6.9), or smokeless types, chewing tobacco (P < 0.0001, OR = 8.3, 95% CI = 5.4-13.0) and oral dip products, consumption of gutkha (P < 0.0001, OR = 12.8, 95% CI = 7.0-23.7) indicated strong association with oral cancer.[12].

Sardana S (2011) conducted the study under the title Age of initiation & prevalence of tobacco use among school children. Data on tobacco use were collected from 4786 students of classes 7 to 12 (age: 11-19 years) studying in different private and government schools. Any kind of tobacco use was found in 537 (11.2%) students; 419 (8.8%) were 'ever smokers' 219 (4.6%) were tobacco chewers, 179 (3.7%) were 'exclusive smokers' and 118 (2.5%) were 'exclusive tobacco chewers'. Around 12.4 years more than 50% of tobacco chewers reported use of khaini at least once.[13].

Mirza SS et al (2011) Pakistan did his study on Areca nut chewing and dependency syndrome: is the dependence comparable to smoking? We carried out a final analysis on 851 individuals, of which 36.8% (n=314) were areca nut users, 28.4%(n=242) were the chewers of areca with tobacco additives and 34.7%(n=295) were regular cigarette smokers. Dependency syndrome (OR = 2.17, 95%CI 1.39-3.40) while cigarette smokers were eight times more likely to have dependency syndrome as compared to areca nut only users.[14].

Sarawat N et al (2020) have conducted a study on the objective of this integrative review is to synthesize existing evidence regarding oral cancer-related knowledge, attitudes and practices of GPs in developed countries." A total of 21 studies involving 3409 GPs were reviewed. Most studies revealed limited knowledge of GPs about emerging risk factors, such as betel nut chewing (0.8-50%). Significant variation (7-70%) was evident in routine oral examination practices of GPs. Most GPs felt unsure about diagnosing oral cancer and many (38-94%) raised the need for further education. No study explored the specific relevance of GPs' practices concerning South Asian immigrants.[15].

Saraswat N et al (2020) did their study on the title on Knowledge, attitudes and practices of South Asian immigrants in developed countries regarding oral cancer: an integrative review. Oral cancer is a growing problem worldwide, with high incidence rates in South Asian countries. A total of 16 studies involving 4772 participants were reviewed. These studies were mainly conducted in the USA, UK, Italy and New Zealand between 1994 and 2018. Findings were categorised into themes of oral cancer knowledge, attitudes and practices. A general lack of oral cancer risk knowledge (43-76%) among participants was reported. More than 50% of people were found engaging in one or more oral cancer risk practices like smoking, betel quid/pan/gutka chewing. Some of the participants perceived betel quid/pan/gutka chewing habits as good for their health (12-43.6%).[16].

Asthana S et al (2019) conducted a study on the Association of smokeless tobacco with oral cancer: A review of systematic reviews. In total, 12 systematic reviews with or without meta-analysis were included in the review. There was a positive and strong association between Smokeless Tobacco (SLT) use with oral cancer irrespective of gender, region, and type of smokeless tobacco. The risk estimate for the South-East Asia Region (SEAR) ranged from 4.44-7.90, for Gutkha it was 8.67, while for Paan it ranged from 6.3-7.90 and for overall SLT it ranged from 1.36-7.90. Risk estimates for females ranged from 5.83-to 14.56.[17].

Metgud R et al (2018) have done a study on title to assess the prevalence, knowledge, and attitude of gutkha chewing among school children. Two thousand school children aged between 10 and 15 years were examined with individual interviews along with a questionnaire to evaluate the presence of betel nut and paan chewing habits in various forms. Twenty-eight percent of children had the habit of gutkha chewing, more among boys than girls at the ratio of 4:1 which was statistically significant (P < 0.05). The habit was more common in government school children than in private school children; over 70% of children believed that it is a bad habit, but half the study population was not aware of side effects; 30% of children believed that it is not a bad habit and has no side effects.[18].

Narayan RR et al (2017) did their study to assess the knowledge, attitude, and impact of pictorial warnings present on tobacco

Packets among patients attending the outpatient department. It was a cross-sectional study conducted among 419 patients through convenience sampling, using a structured close-ended questionnaire containing 35 questions. Out of a total of 419 participants, 62.8% were tobacco users. About 40.6% of the participants had average knowledge and only 22.9% had a positive attitude regarding the pictorial warnings. Nearly 77.9% of tobacco users had previously attempted decreasing the frequency of tobacco use and 63.7% had tried quitting the habit. The difference was statistically significant (P < 0.05 Chi-square test and ANOVA).[19].

Shetty K V (1999) conducted his study to assess the knowledge, attitudes and beliefs of South Asian adults (n = 367) regarding the risk factors and signs for oral cancer. Tobacco use was the only risk factor correctly identified by most adults (82%). A significant difference (P < 0.001) was seen in the betel-quid chewing habit among the age groups with 42.2% of adults in the 50-80 year age group practising this habit as compared to only 5.3% in the 16-29 year age group. Another finding was that the traditional method of betel-quid chewing is being replaced with readily available processed areca nut and tobacco products.[20].

Jayant K et al (1991) did a study of knowledge, attitude and practice concerning tobacco usage in school children. A study was conducted on 1278 boys and 353 girls studying in the final year in various schools. The proportion of boys given to one or the other form of tobacco usage (including experimenters/triers) was significantly higher in private English medium schools (22.5%) compared to private Indian language schools (6.9%) or municipal Indian language schools (13.8%). There was also a significant difference between the two types of Indian schools. Girls from only Indian language schools were entered into the study and the proportion of tobacco users in them was very low (1.1%).[21].

Conclusion

This chapter deals with the analysis and interpretation of the results of the study. The data was gathered and analyzed by using descriptive and inferential statistics. A Chi-square test was used to find an association between the knowledge and attitude scores with selected demographic

Variables. Findings revealed that the majority of people in early adulthood had average knowledge and a neutral attitude regarding the hazards of tobacco chewing.

- A similar study can be conducted on a larger and wider sample to draw generalizations.

- A comparative study may be conducted on the urban and rural people of early adulthood.

- A similar study can be conducted between early adulthood & late adulthood.

Author contribution: PS: Concept of study, data collection, AC: Supervision, data interpretation, review of literature, Result analysis, data collection, supervision.

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