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Influence of tobacco imagery in Tamil movies among adolescent smokers in Poonamallee, Tamil Nadu

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ABSTRACT

Introduction: There are various types of tobacco the adolescents are exposed to, smoking which is a major threat to mankind is active in the teenagers in recent years. Social media, movies, television which are the sources that render adolescents to get addicted with this habit. Hence this study aims to determine the influence of tobacco imagery in Tamil movies among adolescent smokers.

Materials and Methods: This cross –sectional questionnaire based study was done among 411 adolescent smokers in poonamallee taluk of Thiruvallur district. The movies were selected from the year 2019, 2020, 2021 and they were coded based on the tobacco imagery signs. The questionnaire assessed adolescents smoking and tobacco habits, their mode of information about tobacco products and their affinity towards movies. Association between the coded tamil movies with high tobacco imagery with the source of information, cigarettes bought after watching movies and dependency rate was performed with Chi-square test.

Results: There was a significant association between the high tobacco imagery movies and cigarettes bought after watching movie clips (p=0.001). There was no significant association between the number of cigarettes smoked and high tobacco imagery movies (p=0.092). Impact signs were not very helpful in the adolescents to quit the habit (73.75%).

Conclusion: Since the teenagers are exposed to a wider range of social networks they are highly susceptible to adapt to the culture projected to them. It is imperative to make necessary techniques and effective methods to taper the need for tobacco use.

Keywords: *Tobacco, teenagers, adolescents, imagery, movies*

INTRODUCTION

The second major cause of mortality in the world is because of tobacco usage. Major cause of excess mortality among smokers is the smoking related diseases like cancer and respiratory diseases [1]. Smoked and smokeless tobacco are the two types of tobacco products [2]. The use of tobacco in any form, including exposure to second-hand smoke (SHS), adversely affects the functioning of most organ systems of our body. Tobacco kills more than 1 million people each year and contributes to 9.5% of all deaths [3, 4].

In terms of morbidity, more notable forms from a public health perspective are cancer, cardiovascular disease, and respiratory disease[5,6]. Over 90% of people that smoke begin before the age of 18, and each day more than 3,000 children and adolescents become regular smokers[7,8]. It is increasingly recognized that adolescents who smoke are at risk of becoming dependent on tobacco[9,10]. The use of tobacco in middle- and low-income countries is rising and is usually linked to low-income and low-educational status[11].The initiation of this behaviour starts with a strong influence which is obtained from various sources.

Adolescents start smoking with the peer pressure of family and friends, social influences, close proximity to a circle which accepts smoking [12, 13]. A typical adolescent spends 2-3 hours per day watching television and films. There are various modes in which adolescents are attracted with reference to social platforms. Hence this social media and television influences can be an updated version of adolescents smoking [14]. Movies are an eminent socialising force for contemporary adolescents, shaping views of what is cool, attractive, and grown-up as in all things that adolescents try to be. Adolescents may perceive relationships between these desired characteristics and behaviours (e.g., tobacco use) that might help establish this identity [15]. To the extent that smoking portrayals are consistent with teenagers' actual or ideal self-images or prototypes of the ideal group member, adolescents will be motivated to smoke to align self-perceptions with personal ideals. Adolescents are attracted to movie scenes with smoking because of the popular actors promoting those products [16].

Previous studies have listed the relation between the smoking adolescents and exposure to movie smoking.In a review study, the adolescents and young adults influences over tobacco imagery portrayals were discussed. This projects a view that digital media has surpassed traditional marketing. The youth were exposed to substance use due to high exposure to tobacco portrayals in the media [17]. With a study done in among the northern New England adolescents in 2001 there was a strong relation between exposure to movie smoking and smoking initiation in spite controlling all the essential risk factors for smoking initiation[18]. Exposure to movie smoking was associated with more positives attitudes and the intend to smoke among the non smokers. One to two years later the never - smoking adolescents initiated the smoking habit after exposure to movie smoking. Surprisingly the effect was stronger among children of non smokers than it was among the children of smokers inspite of absence of more traditional risk factors. This proved that the children had a great impact with movie exposure.

A wide range of Research was carried on to elaborate the causal relationship between exposure to smoking among adolescents and influence of movies. This study was designed to predict the influence of tobacco related tamil films on adolescents and the impact the movies cause them to initiate smoking and tobacco related activities. Hence the aim of the study was to determine the effect of exposure to tobacco scenes in a movie and its impact on initiation of smoking among adolescents in Poonamallee, Tamil Nadu.

MATERIALS AND METHODS

This cross-sectional study analysed data from a cohort of male adolescents attending schools and colleges. The study was executed in Poonamalle block in Thiruvallur district, Each school and colleges were selected from different zones of Poonamalle block. 411 participants were included in the study and the participants were asked about their perceptions of cigarette smoking and tobacco use and personal histories of cigarette smoking/ tobacco use. The study commenced after obtaining approval from the Institutional Review Board of Saveetha Dental College. Permission from the heads of the schools and parents of the adolescents and verbal consent of the participants were obtained. All standards in conducting the study were carried in accordance with Helsinki's declaration. The choice of schools and College was based on the following criteria: (1) schools that included students in 7–10th grades (adolescents aged 13−17 years), and (2) schools and colleges located in Chennai, Tamil Nadu, College students of 18-19 years of age. The survey was carried out in the following government schools and Colleges: Thirumazhisai, Kammavar Kandigai, Thandalam in Tamil Nadu, India. Questions on exposure to tobacco imagery in movies were asked to students as to whether they had seen any of the 26 Tamil movies in the past four years (2019-2022). The most popular

movies were identified from national and local film distributor box-office ratings data. Each year five to eight movies were selected, and the tobacco, smoking scenes were counted for each scene in the movie. After which the high coded movies to the low coded movies were concluded. A questionnaire was framed regarding the movies and its influence on the smoking/tobacco habit of adolescents.

The internal consistency of the questionnaire was first assessed using test–retest reliability among a pilot sample of 30 participants students from the study population (Cronbach's alpha value was 0.8). The face and content validation of the questionnaire was checked by a team. Fagestrom dependency was also assessed.

Statistical analysis The data were analysed using SPSS (version 20) software. Descriptive statistics are presented for all demographic study variables, and frequency distributions are presented. Chi-square analysis was performed to determine the association between the variables

RESULTS

Adolescent male smokers in schools and colleges of Thirumazhisai, Kammavar Kandigai, Thandalam (n= 411) were included in the study. 6% of the participants were in the age group of 17 years.50.9% of the participants were 18 years of age. 43.1% of the participants included in the study were 19 years of age. 93.9% of the participants had the habit of smoking one cigarette per day and 6.1% of participants had the habit of smoking more than one cigarette per day. 78.7% of the participants got information about tobacco and smoking from movies, 9.9% of the participants got information from TV Commercials and 10.7% of the participants got information from online sources. 70% of the participants strongly agreed that they bought cigarettes after watching movies. 62.8% of the adolescents strongly agreed that the movie clips reminded them how to smoke. Among the participants 85.7% of them had very low dependence and 13.5% of them had medium dependence.

The chi-square analysis was performed to determine the associations between the parameters of the study. There was a significant association (p=0.001) between High tobacco imagery movies (2019-2022) and cigarettes bought after watching movie clips.(Figure 1). This analysis depicted that the movies with high tobacco imagery influenced the adolescents to buy cigarettes.

There was an increase in tobacco consumption after watching movies in the year 2022 when compared with 2019,2020, 2021 suggesting that the impact of tobacco imageries is high in recent years.The chi-square test for association was carried out to find the association between the movies with more scenes of tobacco imagery and the number of cigarettes smoked among adolescents.There was no significant association (p=0.092) between movies with high tobacco imagery(2019-2022) and number of cigarettes smoked.(Figure 2). The chi-square analysis which was performed to analyse the dependency among adolescents with the movies having high tobacco imagery showed statistically significant differences between movies with high tobacco imagery (2019-2022) and Fagerstrom scale of Dependence (p=0.008) (Figure 3). Dependency among the teenagers was influenced by the high tobacco imagery movies.64% of the adolescents responded by saying the impact of tobacco warning signs does not have any effect on them to quit the habit of tobacco.(Figure 4)

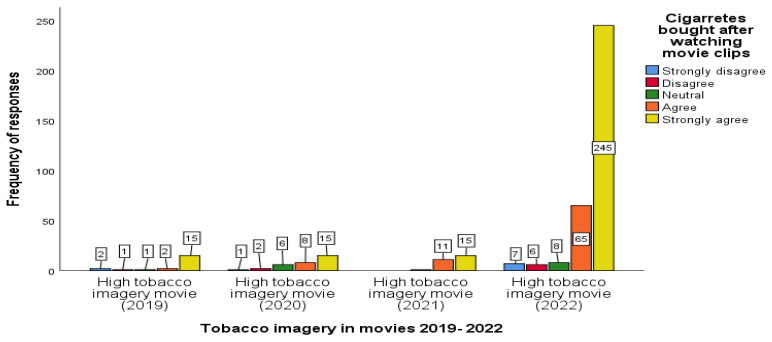

FIGURE 1: Cigarette consumption after watching High tobacco imagery movies (2019-2022)

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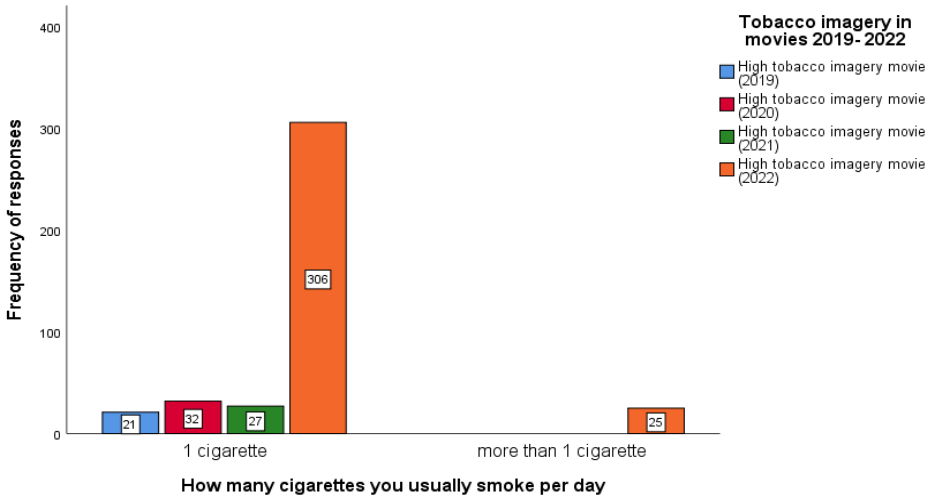

FIGURE 2: Movies with high tobacco imagery(2019-2022) and number of cigarettes smoked

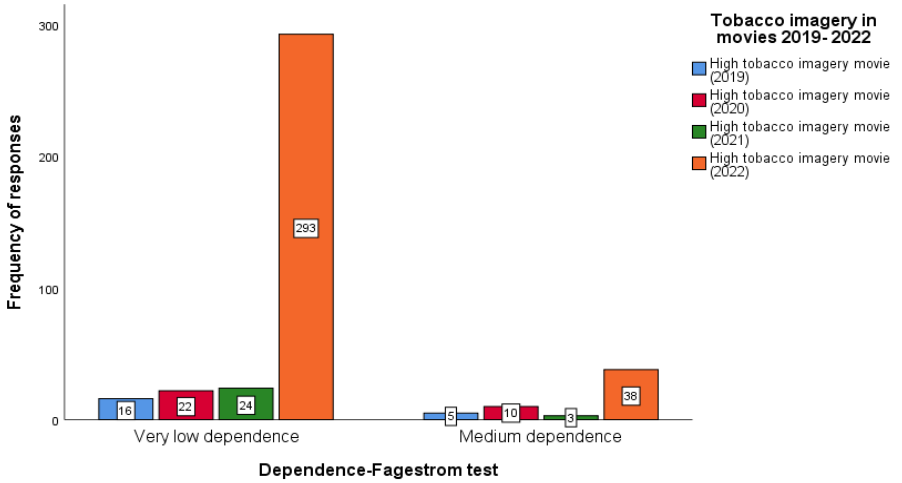

FIGURE 3: Movies with high tobacco imagery (2019-2022) and Fagerstrom scale of Dependence

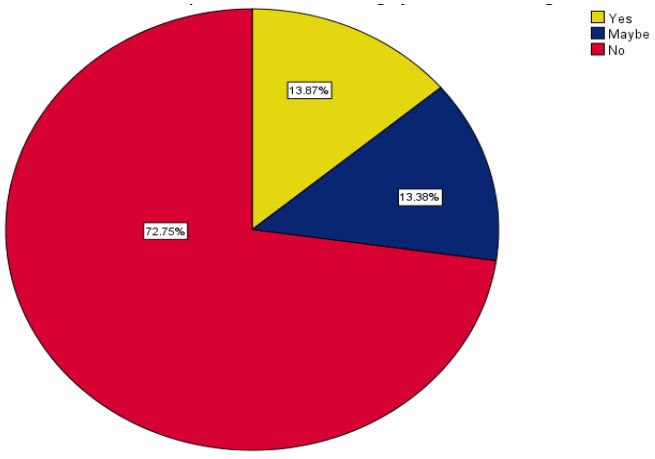

FIGURE 4: Impact of tobacco warning signs in Movies

DISCUSSION

Smoking and tobacco use is a health concern worldwide among the youth as it makes a major contribution to the increasing burden of cancers, chronic diseases, and associated mortality [19]. Previous studies reported that the influence of technology, mass media, family, and peers leads a large majority of the population to begin smoking at an early age, especially in India [20,21]. The present study also states that there is a significant association between the source of information and the number of cigarettes smoked. In a study conducted by Anusha et al, there was a significant association between cognitive media effects and perceptions of descriptive and injunctive norms for tobacco use and smoking behaviour [22, 23].

According to the previous research, by tickle et al, this association contributes to the normalisation of cigarette smoking and tobacco use, thereby encouraging these behaviours among adolescents [24]. The present study also implies that the cigarettes brought were considerably high after watching movies with high tobacco imagery. As reported previously, male adolescents who associate smoking/tobacco use by characters in television shows with masculinity and a sense of pride are likely to adopt the behaviours shown by these characters [25]. The impact of the tobacco signs were considered not a driving force to quit the habit of smoking. In a similar study done in Udupi district in karnataka, the school children of grades 6-8 were analysed on their smoking behaviour by a questionnaire consisting of their exposure to smoking habit based on movies.

This study was not in correlation with the present study, as they concluded that the smoking imagery in movies had a significant negative relation with the ever smoking of the children. The family environment and the peer pressure was concluded as the reason for the child's smoking behaviour [26, 27]. In a study conducted by Monika et al in 2019, a focus group discussion was conducted among the adolescents in which the highest viewed series was from netflix and amazon prime. The series from these platforms were listed out, there were two series which had the maximum tobacco imagery. Youtube and Hotstar platforms had minimum tobacco imagery [28].

With respect to the limitations of the present study, the external validity of our results is limited due to the small sample size and cross-sectional nature of the study. The study comprises movies from 2019 and hence it may lead the participant to memory bias in answering the questions. Improving positive health behaviour is important for a decrease in smoking initiation and tobacco use among adolescents. Encouraging adolescents to question the intentions and accuracy of media portrayals of tobacco use, irrespective of whether in advertisements or movies toward smoking and tobacco use, can have a positive effect on their perceptions of tobacco use.

CONCLUSION

With the limitations of the study, the tobacco imagery in the movie plays an important role in the participation of the smoking and tobacco activity among adolescents. Also teenagers today are exposed to wider social networks and have more friendship groups than ever before. Among adolescent age groups, peer pressure is invariably more important than parental or external influences. Hence it is imperative to establish effective methods to taper the use of tobacco among the adolescents.

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