KNOWLEDGE AND ATTITUDE ON TATTOOING AND ITS HEALTH ISSUES AMONG THE COLLEGE STUDENTS

ABSTRACT

The rising popularity of tattoos among Indian college students, influenced by media and peer trends, has brought attention to associated medical risks ranging from mild skin reactions to severe health complications. The study aimed to assess the knowledge and attitudes of college students regarding tattooing and its associated health issues in a selected college in Coimbatore. A descriptive survey approach and a non-experimental descriptive design were used. The study targeted students aged 18 to 25 years, with a sample size of 120 selected through non-probability convenience sampling. A structured questionnaire comprising demographic data, knowledge-based questions, and a Likert scale to assess attitudes was used for data collection. Knowledge was categorized as good, average, or poor, while attitudes were classified as favorable, neutral, or not favorable. The tool was validated by nursing experts, and data collection was conducted over three days during break hours with full participant cooperation. Descriptive and inferential statistics were used for data analysis. Ethical considerations were observed, ensuring confidentiality and voluntary participation. The study found that most of the participants, 75 (62.5%), had an average level of knowledge about tattoos and their associated health issues, while 45 (37.5%) had poor knowledge. Also, the majority of participants, 84 (70.0%), had a good attitude toward tattoos and their health issues, while 36 (30.0%) demonstrated an average attitude. Statistically significant associations were found between the field of study and the level of knowledge, as well as between the reasons for getting a tattoo and knowledge levels. No significant associations were found between demographic variables (age, gender, religion, area of residence, and family income) and knowledge or attitude levels. The study concluded that while attitudes toward tattooing were generally favorable, there was a significant gap in knowledge about its potential health risks. The study recommends targeted educational interventions to improve students' understanding, particularly among those with limited knowledge, ensuring informed decision-making regarding tattooing.

Keywords: *Knowledge, Attitude, Tattooing, Health issues due to tattoos, College students*

INTRODUCTION

Tattooing, once a countercultural practice, has become a widely accepted form of self-expression and body art, particularly among younger adults and college students. Despite its growing popularity for identity, aesthetics, and memorialization, tattooing carries significant health risks if proper hygiene and safety measures are not followed. These risks include infections, allergic reactions, and long-term complications such as scarring, exposure to toxic substances in inks, and potential masking of skin conditions like melanoma. Tattoo inks, containing chemical compounds, may release harmful substances over time, causing chronic inflammation or, in rare cases, skin cancer. Additionally, inadequate sterilization during tattooing can lead to severe infections, including hepatitis B, hepatitis C, and HIV.

Ngaigze Wong et al. (2019) conducted a study on the risk of bloodborne viral infections related to tattooing practices among adults. The study found a 19.5% self-reported prevalence of tattooing, with 80% of participants having at least one bloodborne viral infection that could be transmitted through tattooing.

Christel Nielsen et al. (2024) conducted a population-based case-control study to explore tattoos as a potential risk factor for malignant lymphoma. The study highlighted the increasing popularity of tattoos and raised concerns about the carcinogenic chemicals in tattoo inks, such as primary aromatic amines, polycyclic aromatic hydrocarbons, and metals. These substances, introduced into the skin during tattooing, can migrate to lymph nodes, though their long-term health effects remain unclear. The researchers analyzed data showed tattoo prevalence was 21% among cases and 18% among controls, with tattooed individuals showing a higher adjusted risk of overall lymphoma (IRR = 1.21; 95% CI 0.99–1.48). The risk was particularly elevated within the first two years of tattoo exposure (IRR = 1.81; 95% CI 1.03–3.20) and was most pronounced for diffuse large B-cell lymphoma and follicular lymphoma. The findings concluded a possible association between tattoos and increased lymphoma risk.

College students, in particular, represent a demographic that is not only adopting tattoos at a higher rate but is also at a stage in life where health awareness and decision-making skills are still developing. Their attitudes and knowledge about tattooing and its associated health risks play a crucial role in determining their ability to make safe

and informed choices. Many students may lack access to accurate information on the importance of safety measures, such as choosing licensed tattoo parlors, following aftercare instructions, and being aware of possible allergic reactions. This study aims to explore the knowledge and attitudes of college students regarding tattooing and its potential health issues. By identifying gaps in awareness and understanding their perceptions, this research seeks to contribute to more effective educational initiatives and promote safer tattooing practices within this population.

STATEMENT OF THE STUDY

A Study to assess the knowledge and attitude on tattooing and its health issues among the college students at Coimbatore.

SPECIFIC OBJECTIVES

- To assess the level of knowledge on tattooing and its health issues among college students
- To assess the level of attitude toward tattooing and its health issues among college students
- To find out the association level of knowledge on tattooing and its health issues with selected demographic data
- To find out the association level of attitude on tattooing and its health issues with selected demographic data

OPERATIONAL DEFINITION

Tattooing

Tattooing refers to the process of creating a permanent mark, design, or artwork on the skin by inserting pigments into the dermal layer through pricks or needle-based techniques, among college students observed as a form of self-expression, fashion, cultural identity, or for personal reasons

Knowledge

Knowledge refers to the awareness and understanding that college students have about tattooing, including the process, safety measures, potential health risks such as infections, allergic reactions, and long-term complications like malignant lymphoma or skin cancer. It was measured using a structured questionnaire assessing factual information related to tattooing and its associated health issues.

Attitude

Attitude in this study refers to the beliefs, perceptions, feelings, and behavioral inclinations of college students toward tattooing and its health risks. It includes their opinions on the safety, cultural significance, and personal value of tattoos, and their willingness to follow precautionary measures. It was measured using a Likert scale questionnaire designed to capture positive, neutral, or negative attitudes toward tattooing.

College Students

College students are individuals enrolled in higher education institutions pursuing undergraduate or postgraduate courses, aged between 18 and 25 years.

ASSUMPTION

- Tattooing is very common among college students
- College students have diverse knowledge about tattooing and its health risks.
- The attitudes of students toward tattoos affect their decisions and behaviors regarding safety.
- Social factors like peer influence and trends can impact students' choices about tattoos.

DELIMITATION

The study was delimited to students aged 18 to 25 years attending a selected college in Coimbatore

RESEARCH METHODOLOGY

The research approach used in this study was a descriptive survey approach and the research design was a non-experimental descriptive design. The research variables in the study were Knowledge and Attitude. The target population consisted of college students in the age group of 18-25 years. The 120 college students who met the inclusion criteria were selected by Non-probability convenience sampling.

Sampling Criteria

- Students who were available during the data collection period
- Students who were willing to share their opinions

- Students aged between 18 and 25 years
- Students both male and female students
- Students who were able to read and write in English

RESULT

5.2.1 Demographic characteristics of the sample

The study findings revealed that nearly half of the students, 58 (48.3%), were aged 17–19 years, followed by 48 (40.8%) aged 20–22 years, and 13 (10.8%) above 22 years. Males constituted the majority, with 70 (58.3%) participants, while 50 (41.7%) were females. Most students, 88 (73.3%), were Hindus, followed by 21 (17.5%) Christians and 11 (9.2%) Muslims. Urban residents accounted for 71 (59.2%), while 49 (40.8%) lived in rural areas. In terms of family income, 52 (43.3%) reported earnings of ₹10,000–₹20,000, 36 (30%) earned ₹20,000–₹30,000, 27 (22.5%) earned above ₹30,000, and 5 (4.2%) earned below ₹10,000. Regarding academic focus, 43 (35.8%) were from bio-sciences, 39 (32.5%) from arts and sciences, 23 (19.2%) from commerce, and 15 (12.5%) from management studies. Most students, 98 (81.7%), were enrolled in undergraduate courses, 50 (41.7%), were in their second year, followed by third-year students at 47 (39.2%). Regarding tattooing, 94 (78.3%) were not tattooed, while 16 (13.3%) had tattoos, 9 (7.5%) planned to get one, and 1 (0.8%) had removed theirs. Fashion trends were the main reason for tattooing 57(47.5%), with other reasons including cultural/religious factors 12(10%) and peer influence 10 (8.3%). Most students, 74 (61.7%), lacked prior knowledge about tattoos, while 46 (38.3%) were informed, primarily through other sources 28(60.8%).

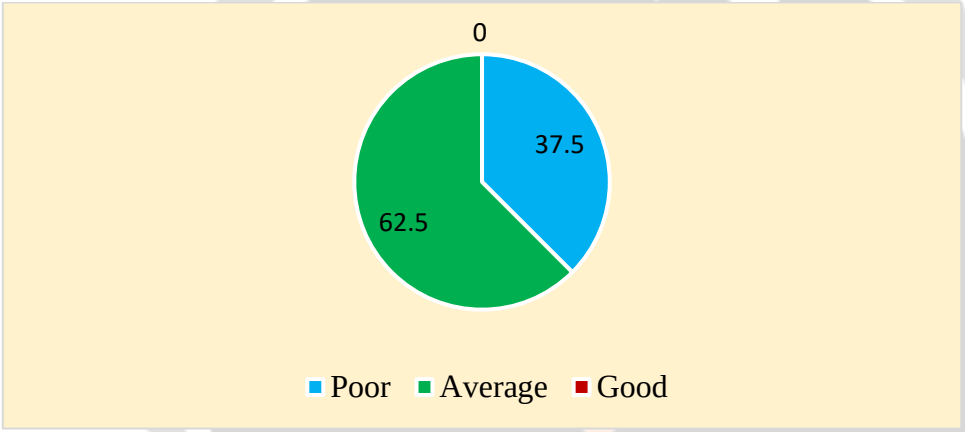

Figure 1 presents the percentage distribution of level of knowledge on tattooing & its health issues.

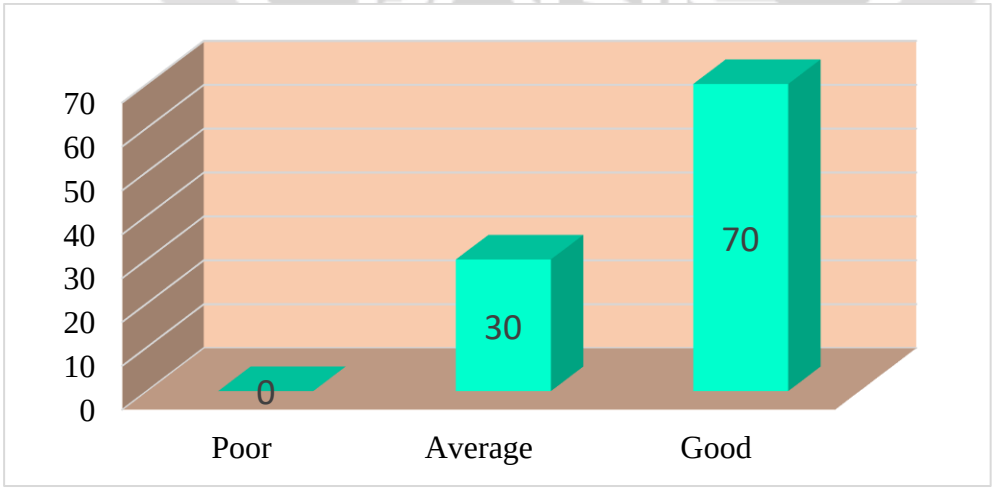

Figure 2 presents the percentage distribution on level of attitude on tattooing & its health issues.

S. No.	Information related to the course of study	Level of Knowledge		Chi-square Value (df)	Significant value P<0.05
		Poor	Average		
1	**Field of study**				
	Arts & Science	13	26	14.141*	0.003
	Commerce	16	7	df =3	
	Management/Business studies	6	9		
	Bio-Science				
		10	33		
2	**Reason for getting a tattoo**				
	Culture/Religious				
	Fashion trend	8	4	14.807*	0.005
	Peer influence	24	33	df =4	
	Love relationship	6	4		
	Others	2	5		
		5	29		

NS-Not significant at P < 0.05, * Significant at P < 0.05, df-degrees of freedom

Table 1 presents the association between the level of knowledge and demographic variables

The study found no significant association between personal characteristics (age, gender, religion, area of residence, and family income) and the level of knowledge and also for level of attitude about tattooing and its health issues, as all had P-values greater than 0.05. Whereas, a significant association was observed between the field of study and knowledge level, with students in bio-science having better knowledge compared to those in arts, commerce, and management/business studies (Chi-square value = 14.141, P = 0.003). Regarding tattoo-related information, there was a significant association between the reason for getting a tattoo and the level of knowledge (Chi-square value = 14.807, P = 0.005), suggesting that those who tattooed for fashion trends had more knowledge about the health issues associated with tattoos. No significant association was found between tattoo status, previous knowledge of tattoos, or sources of information and the level of knowledge, as their P-values were all above 0.05. Also, no significant association was observed between course-related factors like the field of study, course category, and year of study, and the level of attitude, as their P-values also exceeded 0.05. Additionally, there was no significant relationship between tattoo-related factors such as tattoo status, reasons for getting a tattoo, previous knowledge about tattoos, or sources of information with the level of attitude toward tattoos and their health issues.

DISCUSSION

The findings of the present study align with those reported by **T. Thomas et al. (2023),** which highlighted a similar trend of average knowledge about tattooing among students. They reported that 67% of respondents had average knowledge, 14.5% had good knowledge, and 18.5% had poor knowledge. This suggests a consistent pattern across different student populations, indicating a prevalent knowledge gap regarding tattoo safety, associated health risks, and best practices. Both studies underscore the importance of improving students' understanding of tattooing and its potential health implications.

The results of the present study are partially consistent with those of **T.R. Rajinimol (2020),** who conducted a similar study among adolescents in pre-university colleges in Bangalore. Rajinimol found that 94% of participants had inadequate knowledge, with only 6% possessing moderate knowledge. Compared to the current study, this indicates a higher knowledge deficit among younger adolescents in the Bangalore cohort. Interestingly, while the present study observed a predominantly positive attitude (70% good), Her study found the opposite, with 67% of participants having an unfavorable attitude and only 33% holding a favorable one. The discrepancy in attitudes could

be attributed to differences in age groups, cultural contexts, or exposure to tattoo-related practices and information. These findings underscore the importance of bridging the gap between knowledge and attitudes. Efforts should be made to ensure that positive attitudes are informed by comprehensive knowledge, particularly regarding tattoo hygiene, infection prevention, and health risks.

CONCLUSION

The study concluded that most students demonstrated a positive attitude toward tattoos, with 70% showing a good attitude, the majority (62.5%) had only an average level of knowledge, and 37.5% had poor knowledge, highlighting a significant gap in awareness about the health risks of tattoos. Also, the study found that students in bio-sciences had a better understanding of tattoo-related health issues, and those who got tattoos for fashion trends showed more awareness about the associated risks. The study underscores the need for targeted educational interventions to enhance knowledge, especially among those with limited understanding, ensuring that students can make informed decisions regarding tattooing and its potential health impacts.

IMPLICATION

The study highlights the importance of integrating tattoo-related health awareness into nursing education, administration, service, and research. Nurse educators play a crucial role in raising awareness among students about the health risks of tattooing, helping them understand and manage these risks effectively. Nurse administrators should organize in-service programs to educate college students and promote awareness regarding tattooing and its associated health concerns. Nurse practitioners can use the study's findings to inform patients and clients about potential health risks linked to tattoos. Furthermore, the study offers valuable insights for nursing researchers to explore this topic further, assess knowledge and attitudes, and conduct larger-scale studies. Disseminating findings through academic platforms such as conferences and journals can ensure wider reach and application in the nursing field.

RECOMMENDATION

- A similar study conducted with large sample size
- A comparative study can be conducted among health science and arts and science students
- A comparative study can be conducted among students who had tattoos and without tattoos.
- A similar study to assess the prevalence of tattooing and its health issues among college students

CONFLICT OF INTEREST

There were no conflicts of interest related to this study and conducted the research without any external influence or bias.

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