

Attitude and perception of adults toward cosmetic products amid covid-19 pandemic in India

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Received: 20-10-2021 / Revised: 10-11-2021 / Accepted: 29-12-2021

Abstract

Background: Because of the variety of brands available, the dependency of cosmetics is escalating among male and female consumers equally. Whilst there is an upsurge in cosmetic product usage, it is unclear whether end users are cognizant of the items' safety. **Aims:** The goal of this trial was to learn maximum conceivable about consumers' opinions and attitudes regarding cosmetics in the milieu of the COVID-19 pandemic. **Methods:** In Madhya Pradesh, India, a cross-sectional survey was conducted amid adults. Thirty-three questions were designed and validated to be responded by cosmetics customers, and they were grouped into 3 aspects (socio-demographic factors, valuation of both perception and attitude). The descriptive in addition inferential statistical analysis was carried out using SPSS. **Results:** The average age of the participants was 33.2 percent, and the response rate was 87 percent. Cosmetic product perceptions demonstrate a low level of acuity and a moderate attitude toward them among consumers. Participants' perception and attitude had a strong positive association ($p = 0.001$, $r = 0.72$) and a high link ($p = 0.001$, $r = 0.72$). There was a considerable correlation between demographic data and attitudes and views of cosmetic items among respondents. Participants were ignorant that sharing cosmetics could result in bacterial infection, potentially increasing their risk of getting COVID-19. **Conclusion:** According to the findings, Indian adults have a casual attitude toward cosmetics, focused on aesthetics rather than health safety. To prevent COVID-19 transmissions, it is recommended that people become more aware of the content and effects of cosmetic goods, practise better hygiene, and refrain from sharing cosmetics.

Keywords: cosmetics, covid-19, and pandemic

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Introduction

Cosmetic products are defined as any product that is used to improve the client's facial features or complete appearance[1,2].

Cosmetics are used differently contingent on the demographic, with younger generations utilizing them for esthetic purposes and older generations utilizing them to fight the symptoms of ageing. In India, the beauty and health market is growing rapidly. Cosmetic products improve the user's appearance and demeanour, but they can also originate a variability of known and unknown expected outcomes, vacillating from minor local reactions like irritation, burning sensation, and contact urticarial rash to more serious systemic reactions like infections and rhinoconjunctivitis[3]. As a result, not just in terms of economics, but also in terms of Dermatology, user awareness is critical. Several people who use beautifying chemicals aren't aware of the risks they may pose to their health[4]. Because the components and particles of makeup, including any bacteria, can infiltrate the open micro pores in the skin, causing infection, dermatitis, and inflammation, wearing makeup can also increase the risk of infection. Several studies have found that cosmetics such as moisturisers, shampoos, and eye cosmetics enhance microbial growth and contamination[5,6].

According to a prior study, bacteria such as Streptococcus species and E. coli were found in virtually all of the makeup kits (skin and eye cosmetics) at the beauty salon, and about 20% of them were also infected with fungus and yeast. As a result, it is permissible to spread bacteria, fungus, and possibly viruses through cosmetics, making sharing cosmetics less appealing[7]. In retort to the COVID-19 pandemic, there is still no published statistics on the virus's survival rate on or in cosmetic products; however, beauty experts have advised that maintaining a regular beauty regimen should be approached with caution, as the virus could potentially spread through the sharing of cosmetic products. Since the virus may survive for up to three days on plastic and metal cases, dermatologists feel that technical usage and applying makeup, then coming into contact with the face, is a serious possibility[8-16]. Because they provide a natural entrance to the respiratory tract, lipsticks and lip liners are extremely harmful if not thoroughly washed[16]. During the COVID-19 outbreak, the need for a study demonstrating the public's understanding of the health risks of cosmetic use arose. As a result, the purpose of this trial was to explore adult beliefs and attitudes toward cosmetics in Madhya Pradesh, India, during the COVID-19 pandemic.

Methodology

A cross-sectional inquiry design was used to evaluate consumer acuties and attitudes toward cosmetic items. In this study, buyers' attitudes toward cosmetics were clearly identified as the dominant style of thought. As a result, attitude was pronounced as the foremost way of discerning that consumers have toward cosmetics. Attitude is a established and inimitable panache of philosophy that one espouses toward a subject; as a result, attitude was described as the overriding way of thinking that clients have toward cosmetics. The act of

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receiving information and drawing one's own judgments and assumptions about a subject is referred to as perception. In this article, perception was defined as the consumer's personal understanding of cosmetics. This study was placed in the Indian state of Madhya Pradesh. The trial participants were chosen using convenient sampling grounded on the mentioned criteria: (1) Indian citizens, (2) 18 years of age or older, (3) current users of the cosmetic product(s), and (4) not working or studying in the cosmetic industry. Although 1000 cosmetic customers were approached, only 484 agreed to participate in the trial (response rate 87 percent). A self-administered questionnaire was constructed from a formerly corroborated questionnaire and adapted to meet the current epidemic as a data gathering instrument [11]. The instrument tool was created expressly for use among cosmetic users, and dermatologists examined the questionnaire to guarantee its validity in examining cosmetic users' perceptions and attitudes in the face of the COVID-19 epidemic. After that, a pilot research with 50 cosmetic consumers was piloted to test the questionnaire's validity and reliability. The scales in the current study had an internal consistency value of 0.81, content validity of 0.89, and test-retest reliability of 0.92. The questionnaire consisted of 33 items that were separated into three sections: (a) socio-demographic factors, (b) perceptions, and (c) attitudes. The demographic background portion had 13 questions, while the other sections had 10 questions each. The perception and attitudes parts of the questionnaires have a five-point Likert scale as a response option. Face-to-face interviews were used to collect data from August to November 2020, in order to reduce the chance of participant misinterpretation or incomplete responses. A research assistant approached people in the chosen areas and explained the study to them. Consumers that were interested were asked to complete the entire questionnaire. The participants took an average of 10 minutes to complete the questionnaire. Prior to participating in the trial, all participants were required to read an illustrative statement outlining the study's goal and objectives. SPSS version 25 was used to tabulate and analyse the data poised in this study. The following ratings were used to evaluate perception and attitude: 1 for "Strongly Disagree," 2 for "Disagree," 3 for "Neutral," 4 for "Agree," and 5 for "Strongly Agree." Each section's highest score received a total of 50 points. The characteristics of the participants were described using descriptive statistics such as frequency, mean, and standard deviation. Pearson's rank correlation was used to find the link between knowledge and attitudes. With a confidence level of 95 percent, the cut point for statistical significance was set at 0.05. Furthermore, the independent-test and ANOVA tests were used to examine any discrepancies amid the participants' perceptual and attitude ratings and their demographic features.

Results

The bulk of the respondents were female, accounting for 800 (80%) of the over-all, and the average age of the partakers was 33.72 years.

Cosmetic use is stable across all income levels, according to the findings, but those with greater discretionary income are further prospective to employ it on more exclusive cosmetics. The monthly quantity expended on cosmetics was likewise evenly dispersed across income categories, demonstrating variable but consistent purchasing behaviour. In this study, city dwellers made up the bulk of cosmetics users, accounting for 70.9 percent of all respondents. 65.5 percent of cosmetics users were single, with the remaining 34.5 percent being married. Customers' impressions of adult cosmetics show their amount of knowledge about the products they use. 26.2 percent of respondents agreed that product labels are confusing, while 39.9% are unsure whether the components on the labels are ambiguous. While 48.9% of plaintiffs are unsure whether cosmetic adverse effects have been demonstrated in scientific studies, another 47% are unsure whether natural and vegan cosmetics are superior to chemical cosmetics. The majority of adult customers (79.8%) are unsure whether allotment cosmetics increase the risk of the virus spreading in the milieu of the COVID-19 pandemic. In Madhya Pradesh, adult consumers have a widespread view of limited awareness and uncertainty about the content and effects of cosmetics. 73.2 percent of individuals asked felt that applying cosmetics improves their beauty and appearance. 47.5 percent of respondents said they would rather have lovely skin and a better appearance than be aware of the potential negative consequences of the products they use. Adult customers prefer to utilise vegan-certified products, as demonstrated in Table 1, with 55.6 percent agreeing and 12.2 percent strongly agreeing that it is their preferred option. Only 11.2 percent of customers dispute the information on product labels, indicating that they trust the information they see. Overall, the participants have a low impression of cosmetics. There was a statistically significant difference in gender in terms of perception and attitude, with the female mean score being higher, implying that females had more knowledge and attitudes toward cosmetics than their male counterparts. Furthermore, when compared to the younger group, the middle-aged group (36–50) had a considerably higher perception and attitude toward cosmetics. Students scored significantly higher on attitude and perception than the working class, which was found to be inversely connected to income levels. Students are more aware of cosmetics items and trends, although having a smaller income than the working class. Urban residency had a statistically significant impact on the attitude and perception of Indian adult buyers since the products are widely marketed and distributed. Finally, the r coefficient (0.72) reveals a correlation between attitude and perception, indicating a statistically meaningful relationship between the two. The first impression a consumer has of a cosmetic product is supposed to influence their views and, as a result, their attitudes toward the product. As a result, the participants' attitudes about cosmetics would be swayed by their perceptions of them.

Table 1: Adult Indian consumers' attitudes toward cosmetics (N = 1000)

Questions	Strongly disagree N (%)	Disagree N (%)	Uncertain N (%)	Agree N (%)	Strongly agree N (%)
Use cosmetic product because it enhances my beauty and appearance	1.4	12.4	23.8	50.2	12.2
Obtain good skin condition rather than to know the side effects	8.1	9.5	34.9	21.5	26
Inappropriate use of cosmetics causes rashes, skin darkening and wrinkles	1	4.8	46.9	23.3	24

Past experiences influence my purchasing of cosmetic products.	8.5	16.9	33.5	27.3	13.8
Buy natural and vegan cosmetic products if the price is inexpensive	2.3	9.9	26.7	34.7	26.4
Prefer to use natural and vegan cosmetic products	0.4	6.4	43.5	24.5	25.4
Believe the information on the product label	7.6	11.2	54.8	18	8.4
I prefer to use 70% alcohol for sanitizing my cosmetics	5.8	12.2	51.4	20.9	9.7
Use cosmetic products with vegan certification	1.7	3.5	27	55.6	12.2
Use natural, organic and vegan cosmetic products because the products have good quality	6.6	9.3	35.7	33.5	14.9

Discussion

You'll notice a difference in your appearance when you use high-quality, hygienic cosmetics, and you'll have fewer unwanted side effects, which are prevalent with below par fabricated cosmetics. Fake and poorly produced cosmetics have been linked to an upsurge in cancer and other health problems. Participants were also sceptical about whether sharing cosmetics can spread bacterial infection and increase the fortuitous of constricting COVID-19. A previous study looked examined how overtly available trials in a cosmetic goods stock in the United Kingdom participated to the assortment of shingles. This is similar to the findings of Butschke et al.[5], who discovered that consumers were less probable to contemplate the hygienic implications of using the products and were more likely to consider how these products would look and feel on their skin, though this is changing slightly due to increased awareness of the coronavirus's high level of contagiousness[14]. It's vital to remember that COVID-19 is a contagious disease that spreads mostly through inhaling tiny droplets and sharing surfaces in the aftermath of the worldwide epidemic. Cosmetics are one of the most common surfaces that come into contact with a person's face, eyes, and mouth; consequently, in the case of a global pandemic, they should be avoided. Plastic makeup tubes, bottles, and compacts, according to dermatologists, cosmetics experts, and specialists, may represent a risk of virus transmission because the virus can survive for up to 72 hours on these plastic and metal casings. The public is encouraged to avoid sharing cosmetics and to sanitise cosmetic products on a regular basis to reduce the risk of microbial contamination[10-15]. According to, marketing campaigns and the use of well-known people to model branded cosmetic items contribute to this notion. However, the closure of beauty salons and spas as a result of the COVID-19 outbreak has had a severe psychological impact, leading to an increase in informal salons and cosmetic sharing, regardless of skill. Customers and manufacturers make little effort to offer information about the chemicals they use in their manufacturing. Customers' negative reactions to cosmetics, according to Brooks et al.[14], are often instigated by a dearth of perception of the components and their consequences when they react with human skin[6-17]. Furthermore, the use of cosmetics was shown to be higher in urban people than in rural people in the current study. Cosmetics' broad use in cities is sometimes fueled by mass marketing campaigns for cosmetics, which

urge individuals to buy more cosmetics. Customers' perceptions of cosmetics as an important part of their lifestyle are moulded by media communication and aggressive marketing methods in urban areas, which influence their purchasing decisions. Despite the fact that residents, particularly women, are worried about their appearance, the usage of cosmetics is lower in rural areas. They are less likely to fall prey to marketing ploys or buy items based on their proven effectiveness because they have limited access to mass media channels of communication. Natural and vegan ingredients are another emerging trend in cosmetics manufacturing and distribution. In cosmetics users, natural and vegan ingredients have been demonstrated to cause fewer allergies and unpleasant skin reactions. While perceptions vary, cosmetics consumption remains high, showing that attitude is more significant than perception. Customers have a favourable opinion of cosmetics, despite their lack of knowledge about them, which encourages their use and ingesting. In the context of the COVID-19 pandemic, it's vital to foster cognizance that the virus can spread through infected people sharing cosmetics. As the virus is infectious and affects the respiratory system, it can be spread through cosmetics that have come into contact with an infected person. The spread of the virus through the partaking of cosmetics is becoming a serious concern, especially because so many people are asymptomatic. This could be avoided by emphasising the need of sanitising products with rubbing alcohol as a preventative measure, even if they are unlikely to be shared with others.

Conclusion

Adult Indian clients' attitudes and perceptions of cosmetic items are limited, and additional research is needed. It is suggested that these programmes be integrated into the purchase process to promote greater awareness of cosmetic product composition. When customers buy cosmetics, they may be given important information in easy ways that allow any user, regardless of their degree of understanding, to understand the composition of their purchases. Meanwhile, in the aftermath of the COVID-19 pandemic, it's important to remember that cosmetics can be a potential viral carrier and can spread the virus when users use cosmetic items with an infected user. This necessitates stricter hygiene requirements, such as sterilising cosmetic products to prevent them from becoming a source of infection.

References

1. Pandey A, Jatana GK, Cosmeceuticals SS. Stat Pearls [Internet]. 2020.
2. Q, Salman A, Yaacob H, Parveen S. Financial cost and social influence: factors affecting the adoption of vegan cosmetics in India. *Acad Entrep J*. 2019; 25(2): 1- 17.
3. M, Ghaneian MT, Karimi M, Knowledge JT. Attitudes and practice of women about adverse effects of cosmetics in Yazd City, Iran. *Health Scope*. 2018; 7(1): e68257.
4. RA, Dartey E, Owusu W, Dabuoh PM. Level of awareness of effects of the use of cosmetic bleaching products among women: a case study of Bolgatanga Municipality of Ghana. *Res Humanit Soc Sci*. 2014; 4: 57- 62.
5. Butschke A, Droß A, Dünnebier K, Laube I, Weiler A. Experiences and statistical evaluation of serious undesirable effects of cosmetic products in the EU. *Cosmetics*. 2016;3(3):25.
6. R, Gayathri R, Vishnupriya V. Cosmetic contamination awareness among adolescent females. *Asian J Pharm Clin Res*. 2016; 9(5): 117- 120.
7. L, Dehghanzadeh R. Investigating incidence of bacterial and fungal contamination in shared cosmetic kits available in the women beauty salons. *Health Promot Perspect*. 2016; 6(3): 159.
8. MB, Gokila K. A study on consumer awareness, attitude and preference towards herbal cosmetic products with special reference to Coimbatore city. *Int J Interdiscip Multidiscip Stud*. 2015; 2(4): 96- 100.
9. TD, Buzwell S, Sharp G, Rossell SL. The COVID-19 pandemic: psychological and behavioral responses to the shutdown of the beauty industry. *Int J Eat Disord*. 2020; 53(12): 19.
10. Türsen Ü, Türsen B, Lotti T. Aesthetic dermatology procedures in coronavirus days. *J Cosmet Dermatol*. 2020; 19(8): 1822- 1825.
11. C. How Long The Coronavirus Can Live On Makeup, And How To Clean It. 2020.
12. Abbas OL, Karadavut U. Analysis of the factors affecting men's attitudes toward cosmetic surgery: body image, media exposure, social network use, masculine gender role stress and religious attitudes. *Aesthetic Plast Surg*. 2017; 41(6): 1454- 1462.
13. A, Droß A, Dünnebier K, Laube I, Weiler A. Experiences and statistical evaluation of serious undesirable effects of cosmetic products in the EU. *Cosmetics*. 2016; 3(3): 25.
14. Brooks AT. *The Ways Women Age: Using and Refusing Cosmetic Intervention*. Manhattan, US: NYU Press; 2017.
15. H, Lakhani P et al. Microbial stability of pharmaceutical and cosmetic products. *Aaps Pharmscitech*. 2018; 19(1): 60- 78.
16. Chan YY, Mansori S. Factor that influences consumers' brand loyalty towards cosmetic products. *J Market Manag Cons Behav*. 2016; 1(1): 12- 29.
17. A. Skin tears, medical face masks, and coronavirus. *Wound Manag Prevent*. 2020; 66(4): 6- 7.

Conflict of Interest: Nil Source of support: Nil