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CONSUMER BEHAVIOR AND BRAND PREFERENCES IN MOISTURIZER USAGE AMONG COLLEGE STUDENTS OF HASSAN: A CROSSSECTIONAL STUDY

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Abstract

This crosssectional study investigates the usage patterns, brand preferences, and factors influencing moisturizer selection among college students in Hassan, Karnataka. Using a sample of 446 students, data were collected via a structured online questionnaire. Results show that 79.8% of respondents regularly use moisturizers, with Ponds (25.2%) and Nivea (21.6%) as the most popular brands. Brand reputation (39%) and ingredient lists (28.1%) were key determinants in brand choice. A significant association was found between gender and moisturizer usage ($p < 0.05$), with females more likely to use moisturizers than males. Most students purchase moisturizers from cosmetic stores (51.1%), use them once daily (55.1%), and repurchase every 23 months (49.4%). The study offers insights for targeted marketing strategies in skincare products aimed at young consumers.

Keywords: Moisturizer usage, Brand preference, Consumer behavior, Skincare, College students, Gender difference

INTRODUCTION: Moisturizers are topical formulations widely used to enhance skin hydration, texture, and appearance. Moisturizers act through three complementary mechanisms: humectants draw and retain water in the stratum corneum, emollients fill gaps between desquamating skin cells to smooth texture, and occlusives form a surface film that reduces transepidermal water loss (TEWL). Together these actions increase skin hydration, restore pliability, and reduce roughness and visible scaling. [1,2]. Their use is particularly prevalent among young adults who are increasingly conscious of skincare [9]. The cosmetic industry thrives on understanding consumer preferences and purchase behavior to tailor products effectively [3]. Despite the wide availability of brands, consumer choices are driven by several factors including brand reputation, ingredient composition, and price sensitivity [10].

The current study is there an association between gender and moisturizer use patterns (prevalence, frequency, and preferences) among college students in Hassan district? *Null hypothesis (H_0):* There is no association between gender and moisturizer use patterns among these students. *Alternative hypothesis (H_1):* There is an association between gender and moisturizer use patterns among these students.

The research work interpretation framework is if the chisquare test yields $p < 0.05$, reject H_0 and conclude there is a statistically significant association between gender and moisturizer use; report the direction (which gender shows higher prevalence or different preferences), the chisquare statistic, degrees of freedom, pvalue, and an effectsize measure such as Cramér's V to indicate practical importance. If $p \geq 0.05$, do not reject H_0 and conclude the study found no evidence of an association, while presenting observed proportions, confidence intervals, and noting that lack of statistical significance does not prove equality.

From the above perspective the primary objective is to quantify moisturizer usage patterns (prevalence and frequency) among college students in Hassan and to test whether these patterns differ by gender. Secondary objectives are to describe brand preferences, typical purchase locations, and repurchasing behavior and to explore how these trends vary across demographic

subgroups so findings can inform targeted marketing strategies.

MATERIALS AND METHODS

Study design

Crosssectional survey: The study used a crosssectional design to capture information on moisturizer use among students at a single point in time, which is appropriate for estimating prevalence and describing associations rather than causal relationships. Crosssectional designs are efficient for snapshot assessments and for comparing groups on categorical outcomes.

Sampling and participants

Simple random sampling of 446 students: A sampling frame of eligible students from diverse colleges in Hassan district was used and 446 participants were selected by simple random sampling so that each eligible student had an equal probability of selection; this approach reduces selection bias and supports representativeness within the frame. Documenting how the frame was constructed (enrollment lists, class rosters) and the randomization procedure (random number generator) is essential for reproducibility.

Questionnaire development

Instrument content and format: Data were collected with a structured Google Forms questionnaire containing two sections: demographics and moisturizer use items (frequency, brand choice, purchase location, repurchasing behavior). Questions were closed ended or categorical to facilitate descriptive summaries and chisquare testing; response options should be mutually exclusive and exhaustive to avoid ambiguous coding. Pretesting the form on a small sample helps identify unclear wording and technical issues before full deployment.

Data collection procedures

Administration and consent: The survey was self administered online via Google Forms, with responses automatically recorded into a spreadsheet for export. Inclusion and exclusion criteria (for example, current enrollment and completion thresholds) and an online informed consent statement should be specified; timestamps and response completeness checks help monitor data quality during collection.

Data management and cleaning

Preparation for analysis: Exported responses were cleaned by removing duplicates, handling incomplete records according to prespecified rules, and recoding text responses into categorical variables (e.g., frequency categories). Missing data rules (when to exclude a respondent or impute values) and variable coding schemes must be documented so analyses are reproducible and transparent.

Statistical analysis

Descriptive statistics and chisquare testing: Categorical variables were summarized using counts and percentages; continuous variables (if any) were summarized with means or medians. The chisquare test of independence was used to evaluate the association between gender and moisturizer use; before applying chisquare, expected cell counts were checked and, if assumptions were violated, alternatives such as Fisher's exact test or category collapsing were considered. Report the chisquare statistic, degrees of freedom, pvalue, and an effect size measure (for example, Cramér's V) to convey the strength of any association.

Significance threshold and interpretation

Alpha and decision rule: Statistical significance was defined as $p < 0.05$; results with p values below this threshold were interpreted as unlikely to have occurred by chance under the null hypothesis of no association. Emphasize that statistical significance does not imply practical importance and present effect sizes and confidence intervals to contextualize findings.

Ethics and limitations

Ethical safeguards and study limits: The protocol should include informed consent, institutional ethics approval where required, and measures to ensure anonymity and data security. Limitations inherent to the design—crosssectional timing (no causal inference), self report and recall bias, and potential non coverage of students without internet access—must be acknowledged and discussed when interpreting results.

RESULTS

Table 1. Demographic Distribution of Respondents (N=446)

Parameter	Category	Frequency	Percentage (%)
Gender	Female	248	55.6
	Male	198	44.4
Age Group (years)	1820	210	47.1
	2123	154	34.5
	>23	82	18.4

Table 2. Moisturizer Usage Patterns (N=446)

Question	Category	Frequency	Percentage (%)
Do you use moisturizer?	Yes	356	79.8
	No	90	20.2
Frequency of use	Once a day	196	55.1
	Multiple times/day	86	24.1
	Rarely	36	10.1
	Seasonally (winter)	38	10.7
Place of purchase	Cosmetic stores	182	51.1
	Online	95	26.6
	Drug stores	79	22.1
Preferred moisturizer brand	Ponds	90	25.2
	Nivea	77	21.6
	Lotus Herbal	50	14.0
	Cetaphil	40	11.2

DISCUSSION

The study confirms that the statement reports that nearly 80% of students in the sample use moisturizers, and that this high prevalence aligns with prior work by Mawazi et al. This means the majority of respondents regularly include a moisturizing product in their skincare routine, so moisture maintenance is not an occasional or niche behavior but a common, routine practice across the surveyed student population. The phrasing "confirms" indicates the current data reproduce an established pattern rather than presenting an isolated or surprising result.

A prevalence near 80% signals both behavioral and market relevance. Behaviorally, it suggests students perceive moisturizers as useful for everyday skin health—reducing dryness, improving comfort, or enhancing appearance—which can reflect cultural norms, peer influence, or increased skincare awareness. From a product perspective, such a high uptake implies a stable consumer base: students are a sizable, regular user group whose preferences (formulation, texture, price point, brand) will meaningfully shape demand. The concordance with Mawazi et al. strengthens external validity, indicating the pattern is reproducible across samples or settings rather than an artifact of sampling or measurement.

Several factors likely drive the high usage: cosmetic concerns (appearance, makeup preparation), preventive skincare (avoiding dryness or irritation), marketing exposure (social media, influencers), and product accessibility (affordable brands, local availability). Demographic variables such as gender, socioeconomic status, and urban versus rural residence may modulate these drivers. For practice and policy, the finding suggests opportunities for targeted education (choosing appropriate formulations for skin type), for clinicians to ask about topical product use when treating skin conditions, and for marketers to tailor messaging and distribution to student channels. Finally, researchers should note limitations—self report bias, crosssectional timing, and sample representativeness—before generalizing beyond the study population.

The preference for Ponds and Nivea aligns with their strong brand recognition and perceived efficacy [9]. Brand reputation and ingredient transparency rank as critical purchase drivers, consistent with previous consumer behavior studies in cosmetic marketing [10]. The significant gender disparity—with females more likely to use moisturizers—is well documented in dermatological and marketing literature [6]. The

preference for cosmetic stores as primary purchasing venues highlights the importance of physical retail, though online stores capture a notable share, underscoring emerging ecommerce trends. Marketers should focus on trusted brands and ingredient clarity to attract young consumers.

CONCLUSION

This study highlights that among Hassan's college students, moisturizer usage is widespread, brand loyalty favors Ponds, and purchasing decisions are influenced by brand image and product ingredients. Gender significantly affects usage rates, with females being predominant users. These findings offer valuable insights for cosmetic companies aiming to tailor marketing and product development strategies for college student demographics.

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