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Analysis of conscious awareness for natural colors

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ABSTRACT

The festival of colors, fun, joy and harmony is known as Holi in India. It is celebrated by spreading scented colors, powders and perfume at each other. The various parts of trees such as flowers, leaves, fruits and so on, from Indian coral tree (Parijat), flame of forest (Kesu), marigold, turmeric (Haldi), henna (Mahendi), and beetroot etc has been used to prepare colors. In present era, with the advancement of market, transformation of natural colors is taking place with the cosmetic colors. These colors seem to maintain good quality in itself. Hence people generally have stopped to use natural colors in Holi. While these chemical colors are extremely dangerous for human beings and also are perilous for environment. The objective of present study is to analyze the conscious awareness among literate and illiterate people either men or women.

Key words: Holi, Chemical colors, Natural colors, Eco-friendly

INTRODUCTION

Holi is a festival celebrated by Hindus from religious point of view however for youth it is spring festival of joy and happiness. Not only in India but also in Bangladesh, Pakistan, Nepal, and other countries with large Indic diaspora populations following Hinduism, such as Suriname, Malaysia, Guyana, South Africa, Trinidad, United Kingdom, United States, Mauritius, and Fiji it is welcomed. In India itself, this festival is known Festival of Colours, or Dolajāta as in Orissa and Dol Jatra as in Bengali and Basantotsav as in West Bengal. Dhulhandi or Dulhendi is the main day of Holi celebration. At the end of the winter season, on the last full moon day of the lunar month of Phalgun (February/March), (Phalgun Purnima) Holi is celebrated; originally to festive the memorialize good harvest and the fertile land. It also has a religious purpose, to honor divine events in Hindu mythology. To fill the gaps between age, gender, status, and caste Holi allows avoiding social custom by throwing colors on each other. No expectation of customs filled the atmosphere with excitement, fun and joy.

The spring-blossoming trees supply the colors which are appropriate for use in Holi, have been become rare, instead of it chemically produced industrial colors are more approachable and easy to use are going to take their place. As per a study produced in 2001 by the groups Toxics link and Vatavaran based in Delhi 'on the chemical dyes used in the festival' some major facts were highlighted as first of all they analyze about the " safety issues with all three forms in which the Holi colors are produced: pastes, dry colors and water colors. Their investigation also found some toxic chemicals with some potentially severe health impacts. The black powders were found to contain lead oxide which can result in renal failure. The Prussian blue used in the blue powder has been associated with contact

dermatitis, while the copper sulphate in the green has been documented to cause eye allergies, puffiness of the eyes, or temporary blindness.

Moreover this the colorant used in the dry colors, also called gulals, was found to be toxic, with heavy metals causing asthma, skin diseases and temporary blindness. Both of the commonly used bases, asbestos or silica is associated with health issues. Lack of control over the quality and content of these colors is a problem, as they are frequently sold by vendors who do not know their origin.

Chemical Colors: At present generally many of us use chemical colors to celebrate Holi. It can be notice that chemical colors came into trend as they were earlier thought to be harmless. Beside it being convenient and cheapest in comparison of the natural colors is the main reason for changing the option. Now a day's maker blend harmful chemicals in colors and risk over the health of the consumers for the sake of profit. The chemicals mixed by them are so injurious that if unfortunately they enter into human body they may cause fatal infections. These days, most common colors available in the market are oxidized metals or industrial dyes mixed with engine oil. These chemicals can cause serious harm to human health as well as environment.

Harmful Chemicals in Colors & Their Effects on Health: Chemical colors available in the market are oxidized metals and harmful dyes.

Green Color is obtained from copper sulphate (CuSO_4). It may cause allergies in eyes, irritation in skin or temporary blindness.

Purple color is obtained from chromium iodide. It may cause bronchial asthma or other respiratory infections.

Silver Color is obtained from aluminium bromide (AlBr_3). It may cause skin cancer as it is carcinogenic in nature.

Black Color is obtained from lead oxide. It may cause renal failures or learning disability.

Red Color is obtained from mercuric sulphide (Hg_2S). It may cause skin cancer, mental retardation, paralysis, or impaired vision.

Shiny Colors are a result of powdered glass being added to the colors.

Besides, many water colors have an alkaline base capable of causing severe injuries. Colors in the form of pastes have toxic compounds mixed in a base of engine oil or other inferior quality oil, capable of causing skin allergy, temporary blindness.

Toxic chemicals present in chemical colors enter into river and causes soil and water pollution.

Natural and Eco-Friendly Colors: Ancient India was fully responsive to utilize the natural aromatics & eco-friendly colors taken from Nature. They trust on its benefits for our skin, health and also there therapeutic value. The ingredients of Gulal were purposely chosen for their vital qualities. In Vrindavan, Holi is still played with actual flower petals chosen for their fragrance and colors such as rajnigandha, rose, marigold, jasmine etc. By using these safe, natural & eco-friendly colors we can save our environment and conserve our biodiversity. It is to be noted that Holi can be more soothing by celebrating with the natural and eco-friendly colors. As natural colors are obtained from skin friendly resources such as turmeric (Haldi), flower extracts, sandal wood powder, mehndi (Henna) etc.

OBJECTIVES:

- Study of interest of common people for colors
- Thorough analysis of consciousness of literate/illiterate, men/women for the natural colors

Materials and Research Methodology:

There are several resources of natural colors which can be used in Holi. In the following procedure natural colors as the material used for the analysis are define.

This paper is based on primary and secondary data. The data have been quantified in the light of define objectives. For the research we have taken gender (male/female) & education (literate/illiterate) as variables for analyzing the conscious awareness for natural colors.

Gender Group:

Group A₁: It represents male.

Group A₂: It represents female.

Education Group:

Group A₃: It includes illiterate members.

Group A₄: It includes literate members.

Here convenience sampling has been adopted for analysis and the sample size is 100 for each group from Pilkhuwa, Ghaziabad Utter Pradesh India.

RESULTS AND DISCUSSION

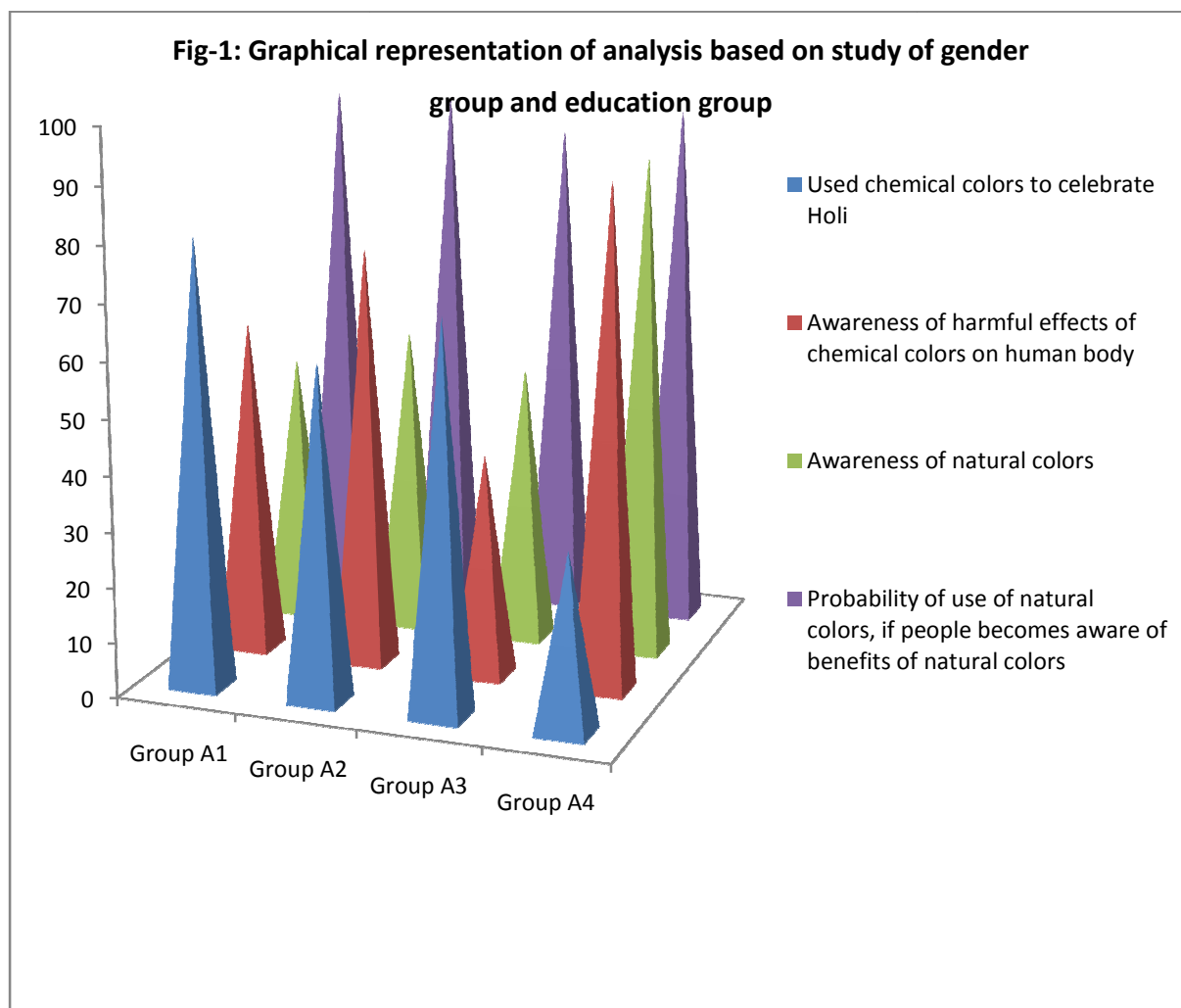
Table-1 & Fig-1 shows the analysis of conscious awareness of natural colors and probability to use it among gender groups A₁ (male), gender group A₂ (female) and education group A₃ (Illiterate), education group A₄ (Literate).

- The % of used chemical colors to celebrate Holi is 80% by **Group A₁**, while **Group A₂** used 60% of chemical colors for the same, on the other hand **Group A₃** used chemical colors to celebrate Holi is 70% and **Group A₄** used 32%. Hence it is proved that the ratio of using chemical colors is differing from Group to Group. However it is in decreasing order. Male than females prefer to play with chemical color. Similarly illiterate people like to enjoy with chemical colors more than literate community.
- **Group A₁** was aware about harmful effects of chemical colors on human body 60%, while **Group A₂** was aware about harmful effects of chemical colors on human body 75%. Similarly 40% of the **Group A₃** was aware about harmful effects of chemical colors on human body however **Group A₄** aware about harmful effects of chemical colors on human body 90%. So the awareness about harmful effects of chemical colors is common in women yet less in men. In second reading it is lower than illiterate in comparison of literate.
- The awareness of **Group A₁** about natural and eco-friendly colors was 48%, while was 55% in **Group A₂**. Correspondingly **Group A₃** shows 50% sensitive approach about natural and eco-friendly colors and **Group A₄** aware about natural and eco-friendly colors 90%. So awareness about natural and eco-friendly colors shows similar impact on gender base study however it has huge difference among literate and illiterate.
- The probability of using natural colors will be surly increase, if people become aware of it and if the same is easily available. The analysis of the research conclude that the 95% in **Group A₁**, 95% in **Group A₂**, 90% in **Group A₃** and 95% in **Group A₄** members will willingly adopt the natural colors.

Annexure:

Table – 1: Analysis of different gender and education groups

Age groups	Gender Group- A ₁	Gender Group- A ₂	Education Group-A ₃ Illiterate	Education Group-A ₄ Literate
Used chemical colors to celebrate Holi	80%	60%	70%	32%
Awareness of harmful effects of chemical colors on human body	60%	75%	40%	90%
Awareness of natural colors	48%	55%	50%	90%
Probability of use of natural colors, if people becomes aware of benefits of natural colors	95%	95%	90%	95%



CONCLUSION

For the prolonged period Hindu culture aims to enjoy nature along with the natural way. Holy is one of the festivals which reflect this trend. As by applying colors in tension free environment (without care of loss either health wise or environmentally). It realized us that even we are like children, and resultant we can feel the pleasure provided by Nature in a natural way. But contaminated chemical colors has been diverted this natural instinct from us. Its result are irritating and going to stop the craze of the funny fest. This paper is an effort to analyze the impact of natural colors and arise a conscious awareness among youngster as well as every zone of people to make availability of it and apply it in the place of natural colors. By encouragement of natural and eco-friendly colors, only a little effort to gain its (Holi) eco-friendly approach can be done.

REFERENCES

- [1] Holi in Lahore NA. 2003-03-28. Retrieved 2010-02-27.
- [2] Holi – the festival of colors Indian Express.
- [3] Religions – Hinduism: Holi. BBC. Retrieved on 2011-03-21.
- [4] Kumauni Holi – Uttaranchal Fairs and Festivals. Euttaranchal.com. Retrieved on 2011-03-21.
- [5] Holi Festival as Celebrated in Western United States
- [6] Happy Holi week. Nepali Times. Retrieved on 2011-03-21.
- [7] Toxics Link (February 2000). The Ugly Truth behind the Colorful World Fact sheet.

- [8] The safe Holi campaign – Kalpavriksh Environment Action Group, Pune
- [9] No real attempt to save trees The Times of India. **2003**-03-17.
- [10] Ke\$ha – Take It Off. YouTube. Retrieved on **2011**-03-21.
- [11] Regina Spektor, Fidelity music video. YouTube. Retrieved on **2012**-01-25.
- [12] Outsourced (**2006**), IMDB.com
- [13] Goethe, Johann Wolfgang von, Theory of Colors, Translated by Charles Lock Eastlake, M.I.T Press, **1970**, ISBN 0-262-57021-1