



Original Article

Frame Selection in Different Age Groups

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Objective: To evaluate the proper frame selection and fitting for spectacle wearer in different age groups and to find out which frame material is preferred by spectacle users.

Patients and Methods: It was an institutional based study, conducted in College of Ophthalmology and Allied Vision Sciences on 90 patients divided in three age groups 0-15 years, 16-40 year and 40-70 years, using different eyeglass frames. Results were obtained after informed consent and by filling a structured Performa.

Results: In this study, Out of 90 patients 38 were using correct eyeglasses frames while 52 were using incorrect frames according to their face shape. 38 people used metal frames, 27 people used plastic frames and 25 were using both metal and plastic frames. So most people were not using correct frames according to their age. In children plastic material preferred but they were using both metal as well as plastic frames.

Conclusion: It is concluded that most eyeglasses wearers were not using correct frames shape and material according to their face shape in all age groups



Introduction:

Eyeglasses frames selection is one of the early and crucial factor for wearer. There are different attitudes and behaviors of a person while selecting and purchasing eyeglasses frames, few individuals focus on style they want to look stylish while others focus on clear vision and are conscious of eye sight and clear view. Few individuals are not mentally prepared to wear glasses such as first time user, while others are motivated and conscious about their glasses. There are different attitudes of people while selecting eyeglasses frames.¹

Material of the frame is the first thing patient look for using spectacles. It should be light. It should not be heavy to cause pain and leave nose pads marks. It should be flexible enough to insert lens in it. It should not be really expensive.²

Spectacles frame selection depends on different factors. One of the important factor is face shape while selecting eyeglasses frames. As there are different shapes of frames and it is difficult for wearer to select correct frame shape according to face shape. Face shapes are round, oval, pear shaped, oblong, diamond shaped and rectangle shaped. Different frames shape suited on these face shapes. As people with broad and wider face should select frames that are tight fitted.³

Eyeglasses frames available in market without screw, bolts, pins these frames are light weight and comfortable to wear, screws, bolts are present in hinges these may induce stress to wearer. There are various improvements in eyeglasses frames, eyeglasses frames hinges break under pressure if any stress apply or in accidental conditions. These glasses are safe to wear and durable. Temple arm lengths are fixed for a specific design but wearer may need longer or shorter temples. These eyeglasses frames can be used with any eyeglass frames of wearer as temples can be changed, these are convenient to use and handle. These frames fulfilled the requirements of wearer such as style, color etc.

These frames are available in different styles such as full wire frames, half wire frames and triple mount frames.⁴

Optical center of spectacles frame should align with the center of the lens. If optical center of the spectacles lenses is not aligning then there will be difficulty to wearer.⁵

Present study shows that people these days are more concerned about their looks and they prefer both frames equally. They first go for the thought which frames suits their face best. Then they look for the concept of choosing frame that goes with their skin tone. Durability is not a big issue also. So 38% of my patients favored metal frames including the idea of style as well and 27% preferred plastic frames and 25% patients were used both metal and plastic frames.

Earlier studies showed that metal frames are better than plastic frames. Metals frames are sturdy in terms of

tensile strength. These frames do not easily break off and earlier people were more concern with the durability fact. In my study people preferred metal frames.⁶

With this regard, spectacles with the good quality material i.e. plastic and metal may play an important role to improve vision and ultimately to gain healthy life style. Spectacles should be manufactured with less weight materials and in case of metal frames; comfortable soft plastic nose pads should be used.⁷

In different age groups people are not using correct frame size, frame shape according to their face size. Results compared in my study, in different age groups most eyeglasses wearer were not using correct frames sizes as compared to their face sizes.⁸ It depends on parts of spectacles frames.⁹

Children and young age people prefer more stylish frames with adjustable designs.¹⁰ People use eyeglasses frames as fashion accessories and do not follow the international recommendations while selecting frames.¹¹

Patients and Methods:

This descriptive cross sectional study was conducted at College of Ophthalmology and Allied Vision Sciences (COAVS) Lahore. An informed consent was obtained describing the detail of the study and implication of the subjects were assured of their confidentiality of information and outcome. A detail socio demographic picture of subjects was obtained. Statistical Package for Social Science (SPSS version 20.0) was used for data entry of all types and its evaluation. Quantitative variable like age was presented in form of mean \pm SD. Significance was assessed at the $P < 0.05$ levels for all parameters. Categorical variables between groups were compared using chi square test or Fischer's exact test. All the data was presented in forms of frequencies, percentages and appropriate pie and bar charts.

Results:

Most eyeglasses wearers were not using frames according to their face shape in all age groups. Material preferred was metal by users but plastic frames were equally used. Young age people were more concerned with style and material of eyeglasses frame.

Table 1: Frame shape vs face shape

		Face shape				Total
		round	oval	Diamond	Rectangle	
Frame shape	correct	20	4	6	8	38
	incorrect	5	18	13	16	52
Total		25	22	19	24	90



Table 1 shows that there is marked difference between frame shapes according to face shape. The results are highly significant ($p < 0.000$).

Table 2: Age vs frame shape

	Frame shape		Total
	correct	incorrect	
age 0-15	12	19	31
16-40	13	16	29
40-70	13	17	30
Total	38	52	90

Table 2 shows that there is no difference between frame shapes chosen according to age. ($p = 0.88$).

Table 3: Age vs. frame material

	Frame material			Total
	metal	plastic	Metal plastic	
age 0-15	6	13	12	31
16-40	16	5	8	29
40-70	16	9	5	30
Total	38	27	25	90

Table 3 shows that there is marked difference between frame material selection according to age. The results are statistically significant ($p = 0.01$).

Discussion:

Study in Ghana was conducted¹⁰, 41% were females and 59% were males of different age groups. Many people did not consider themselves of having refractive errors and do not use spectacles even if they have a prescription. The reason for not buying spectacles was affordability. Cosmetic factors were main reason for cessation of spectacles in women.

In an other study¹¹ it is showed that acceptance of glasses for the correction of refractive error is not encouraging. 37% of glasses users had better experience while 38.38% were not wearing glasses as prescribed by specialist.

Conclusion:

People chose plastic frame as it does not cause

allergic reactions like metal frames do. At the same time some people preferred metal frames because it is scratch resistant and durable. It was totally reliant on the personal preferences of patients while selecting spectacle frames. For people wearing spectacles for long lasting purposes metal frame was preferred. But people who were just using it for style, preferred plastic frames. Majority of people were not wearing correct frame size and shape as compared to their face size.

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