

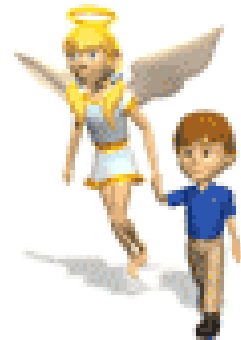
Quality of life in Keratoconus patients after correction with Rose K lenses

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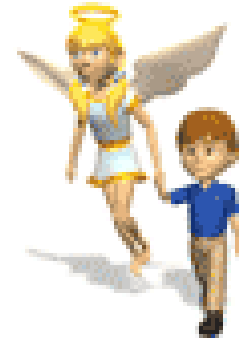
ACKNOWLEDGEMENTS

Ms. Jyoti Dave Singh and [David Thomas Contact Lenses](#)
for providing financial support for travel and
registration



ACKNOWLEDGEMENTS

- Dr. Ashish Nagpal and the entire staff of Wavelase Eye Lasik center, Ahmedabad
- Mr. Nilesh Thite
- Mr. Chiranjib Majumder
- Keratoconus patients
- Mr. Nirav Mehta, Paras Desai and M.Optom Students from HJCO
- Mr. Rand for granting permission to use the NEI – VFQ -25



Background

- Keratoconus has an impact on quality of life which may be disproportionate to the amount of visual loss –CLEK study*
- Recent development in RGP lens designs – ‘Rose K family of lenses for different types of cones in Keratoconus’
- The reported benefits of this lens are
 - better visual acuity
 - increased comfort for Keratoconus patients*



*Zadnik K, Barr JT, Edrington TB, et al. Baseline findings in the Collaborative Longitudinal Evaluation of Keratoconus (CLEK) Study. Invest Ophthalmol Vis Sci 1998;39:2537–2546

*New Zealand lens system may offer practitioners a better way to fit keratoconic patients. Primary Care Optometry News, June 1997. Available at <http://www.slackinc.com/eye/pcon/199706/Zealand.asp> Accessed May 15, 200

Aim & Objectives



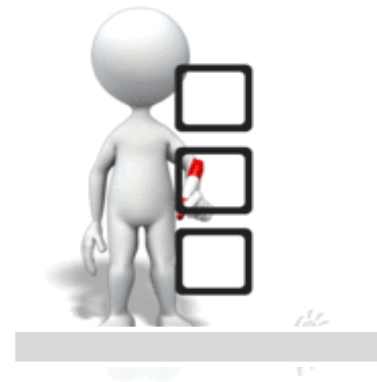
Aim:

Compare the Vision related Quality of Life (QoL) in Keratoconus patients when they are shifted from their habitual correction to Rose K lenses

- ✓ 25-item National Eye Institute- Visual Function Questionnaire (NEI – VFQ 25)
- ✓ objective measure of visual function
- ✓ self-reported assessment of comfort and vision
- ✓ patients preference and choice of correction

Methodology

- Prospective non-randomized study with convenient sampling method
- Initial visit
- Dispensing Visit
- Outcome visit (after 1 month of Rose K lens wear)



Statistical Analysis

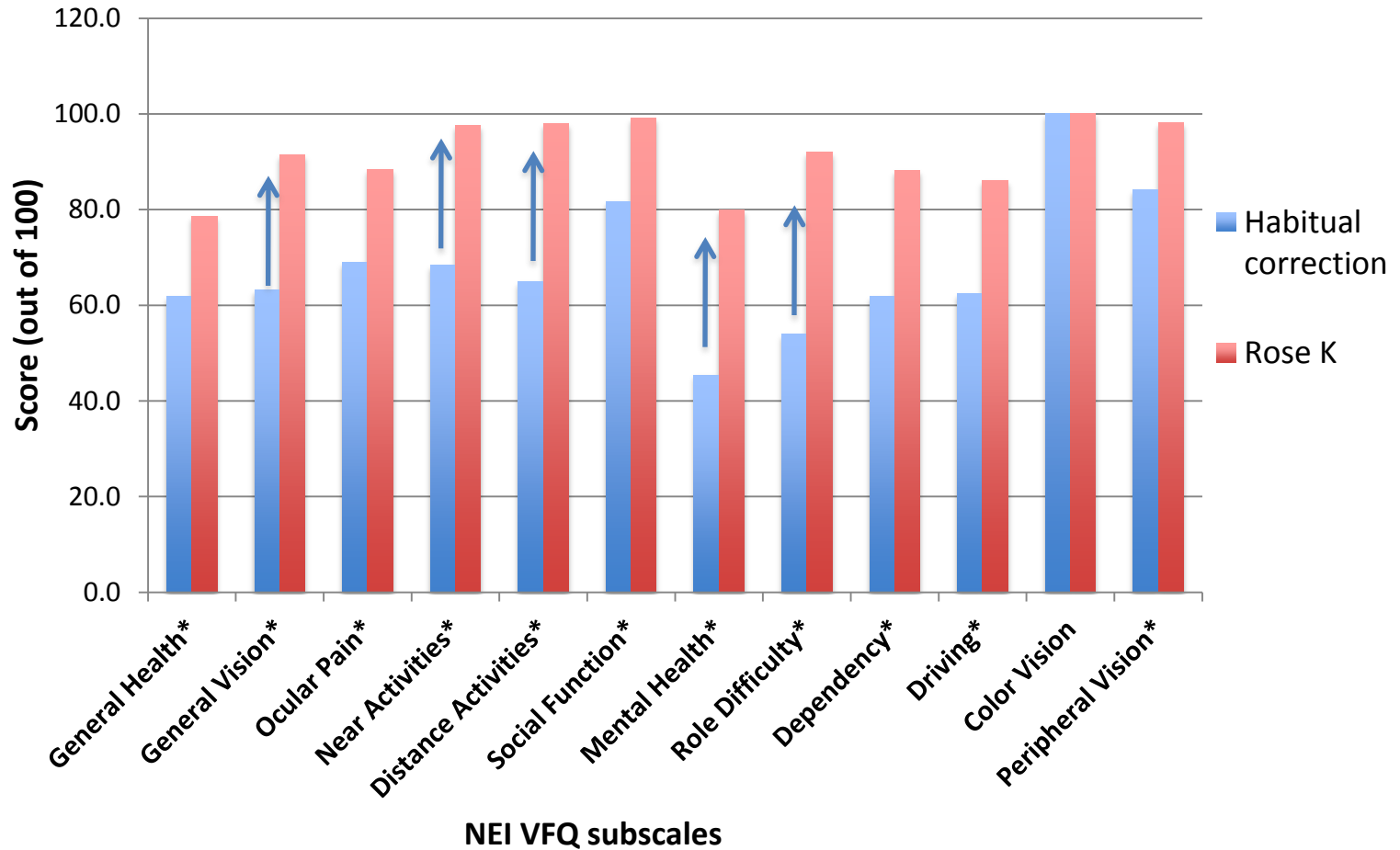
- Data were collected and statistical analyses were performed using SPSS
- Data were checked for normality and analyzed:
 - to determine whether the differences exist or not between baseline and outcome QoL
 - to compare the difference in performance between Spectacle and RGP wearer later corrected with Rose K lens
- A p value of ≤ 0.05 is considered significant

Results

- Total subjects: 19
- Males: 13 (68%)
- Mean age: 27 years (± 12.14)
- Mean of steep keratometric reading of the steep eye was 59.53 D (± 9.33) and flat eye was 53.27 (± 6.76)
- 95% subjects were either students or employed



NEI VFQ - 25: Habitual correction Vs Rose K



* $p < 0.05$

Visual Function



Variables	Habitual Correction		Rose K	
	Mean	SD	Mean	SD
Visual Acuity (logMAR)				
Steep eye	0.597	0.37	0.0758	0.095
Flat eye	0.438	0.39	0.0713	0.107
Contrast Sensitivity (Log)				
Steep eye	1.5	0.901	2.1	0
Flat eye	2.09	0.03	2.1	0

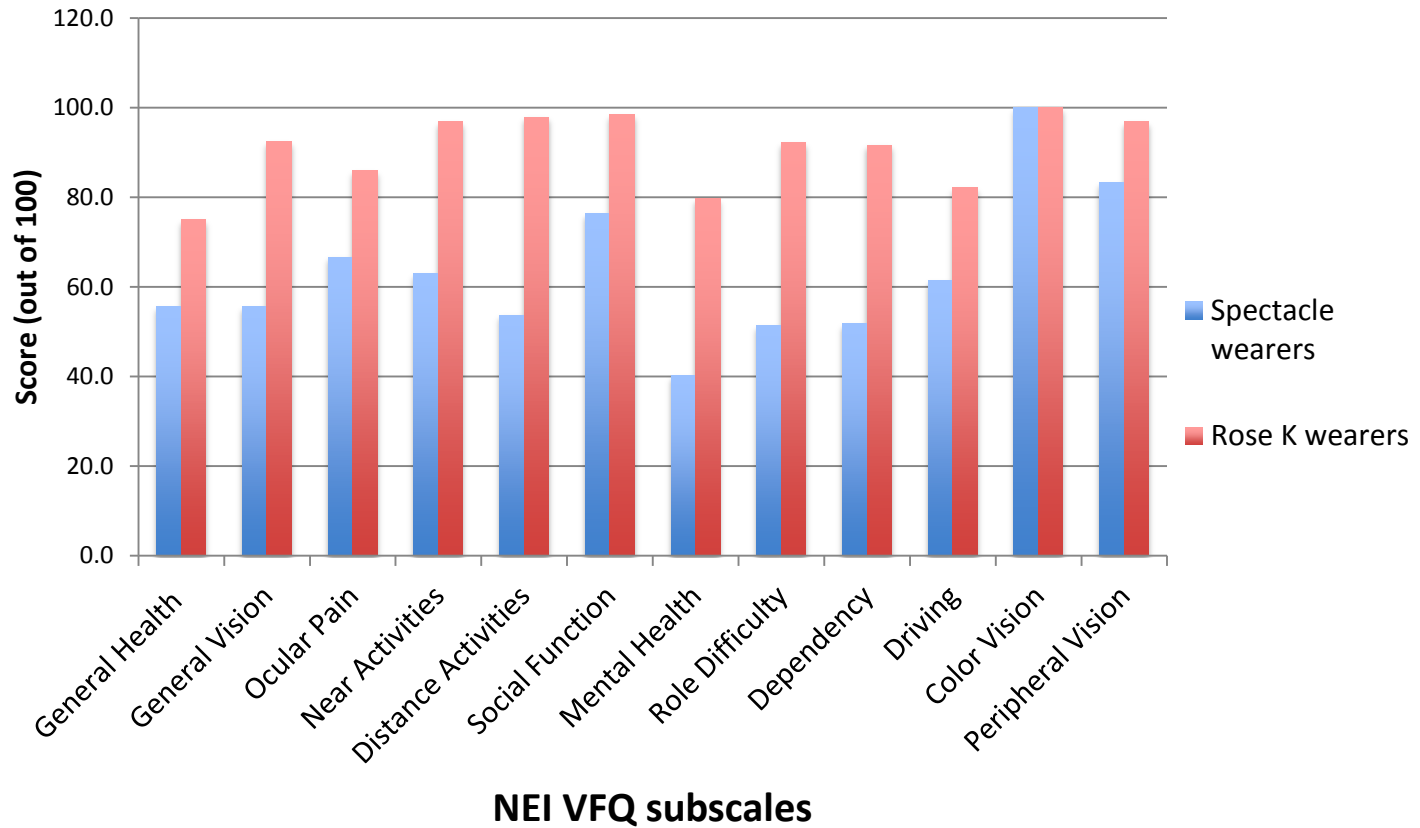
Visual function with habitual correction and Rose K lens for steep and flat eye.

Vision and Comfort



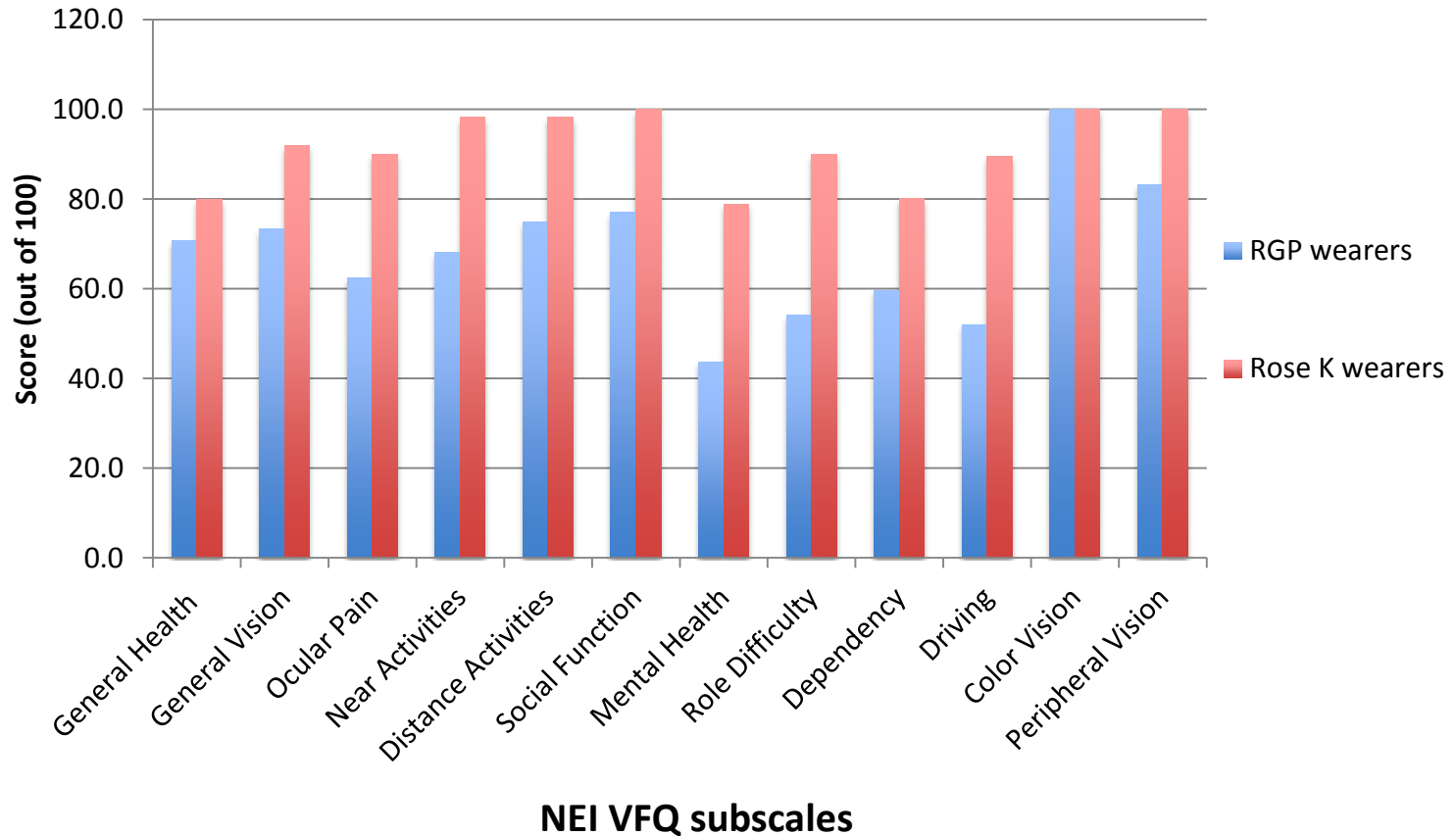
Self-reported assessment of vision and comfort with habitual correction and Rose K.

Spectacles wearers to Rose K



- Subjective comfort did not improve

RGP wearers to Rose K



- Subjective Vision did not show significant difference

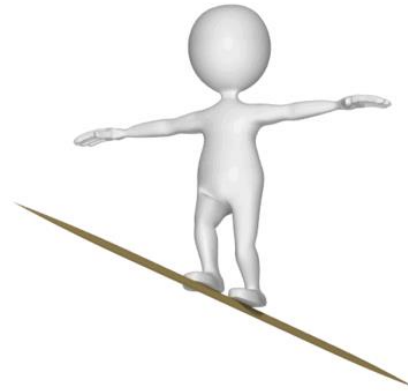
Rose K study Comparison



- The mean overall score of NEI-VFQ 25 at the outcome of this study was 91.50 (\pm 7.42) as compared to the 'Visual Performance and Comfort with the Rose K Lens for Keratoconus' study, which was 87.42 (\pm 13.19).
- In our study, 17 (89%) subjects chose Rose K lenses over the habitual correction as compared to 15 (87%) subjects from the reference study.

Limitations

- Limited sample size
- Convenient sampling from one practice center
- Non blinded



Conclusion

- Rose K lenses improved patient's overall quality of life in moderate and advance cases of keratoconus
- Subjects reported that Rose K lenses are more comfortable and provide better vision
- Out of the total subjects, 17 (89%) of them chose Rose K lenses over their habitual correction in spite of their comparatively higher cost



ASANTE Arigato Ngiyabonga
Spasibo Gracias
Mahalo Merci Xie Xie
Thank You
Paldies Grazie Dziekuje
EFHARISTO Toda Abarku
Danke Tack OBRIGADO