



# Quantifying Post-operative Satisfaction in Patients with Intraocular Premium Lenses

Abhilash Guduru, MD<sup>1</sup>  
Mitchell A. Jackson, MD<sup>2</sup>

<sup>1</sup>Cataract and Refractive Surgery Fellow, Jacksonsoneye: Disclosures None

<sup>2</sup>Founder/CEO, Jacksonsoneye: Relevant Disclosures – Johnson & Johnson, Alcon, RxSight




# Purpose

- To quantify post-operative satisfaction in patients with intraocular premium lenses relative to the patient's own pre-operative lifestyle questionnaire.

# Methods

- This is a cross-sectional study at Jacksoneye analyzing patients' satisfaction from October 2021 to January 2022 who received premium intraocular lens: Vivity, PanOptix, Synergy, Light Adjustable Lenses.
- Each patient is given a pre-operative questionnaire consisting of 23 lifestyle activities, consisting of near, intermediate, and distance tasks, that patient would like to enjoy without glasses.
- Post-operatively >1 month, asked patients if they were satisfied or unsatisfied for each of their interested activities.
- Satisfaction score was defined by the percent of satisfied activities. Satisfaction score then was analyzed by gender, age, and amongst the various premium lenses.

# Example Pre and Post Questionnaire



## Lifestyle Vision Questionnaire

Name: [REDACTED]

We recognize that your eyes are very important to you. We would like to know how you use your eyes on a daily basis. Along with your exam, this information will assist us in recommending the best options for your eyes and your personal lifestyle.

Do you wear glasses now?  No If Yes:  All the time  Sometimes  
 Only for far distance  Only for reading  Only for the computer

How do you feel about wearing glasses? NO PROBLEM

If it were possible to go without glasses most of the time, would you like that?  No  Yes

What type of visual outcome would you like after cataract surgery? (check all that apply)  
 Reduce need for glasses  Reduce my prescription  See better than I did before surgery  
 I didn't realize there were options


**Check the following activities you do on a regular basis, and underline the activities you would like to do without glasses, if possible.**

<input type="checkbox"/> Read Newspapers/Books (Hrs/day <u>    </u> )	<input type="checkbox"/> Play Tennis	<input checked="" type="checkbox"/> Golf
<input type="checkbox"/> Read Medicine Bottles	<input checked="" type="checkbox"/> Hunt or Fish	<input checked="" type="checkbox"/> Use Cell Phone
<input type="checkbox"/> Needlepoint/Sew	<input type="checkbox"/> Paint/Draw	<input checked="" type="checkbox"/> Watch Movies in Theatre
<input type="checkbox"/> Crossword Puzzles	<input checked="" type="checkbox"/> Watch Spectator Sports	<input type="checkbox"/> Photography
<input type="checkbox"/> Participate in Water Sports	<input checked="" type="checkbox"/> Dine in Restaurants	<input checked="" type="checkbox"/> Cook
<input checked="" type="checkbox"/> Drive - Daytime	<input checked="" type="checkbox"/> Bicycle	<input type="checkbox"/> Visit/Care for Grandchildren
<input checked="" type="checkbox"/> Drive - Nighttime	<input type="checkbox"/> Play Cards/Dominos	<input type="checkbox"/> Other (please list below)
<input checked="" type="checkbox"/> Shop	<input checked="" type="checkbox"/> Use the Computer (Hrs/day <u>4</u> )	<input type="checkbox"/> _____

How important is it for you to read or use the computer without glasses?  
 Very important  Important  Not important

**Please place an "X" on the following scale to describe your personality as best you can:**

Easy going  ..... Perfectionist



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<input type="checkbox"/> Participate in Water Sports	<input checked="" type="checkbox"/> Dine in Restaurants <u>S</u>	<input checked="" type="checkbox"/> Cook <u>S</u>
<input checked="" type="checkbox"/> Drive - Daytime <u>S</u>	<input checked="" type="checkbox"/> Bicycle <u>S</u>	<input type="checkbox"/> Visit/Care for Grandchildren
<input checked="" type="checkbox"/> Drive - Nighttime <u>u</u>	<input type="checkbox"/> Play Cards/Dominos	<input type="checkbox"/> Other (please list below)
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- Satisfaction Score
- 9/10 = 90%

# Target Refraction

- Below listed target Rx on IOL master during IOL selection

	Dominant Eye	Non-dominant eye
Light Adjustable Lens	Plano	-0.75
PanOptix	First minus	First minus
Synergy	Closest to plano	Closest to plano
Vivity	-0.25 D	-0.75D

# Results

- Total of 41 patients analyzed in study

	Age Mean $\pm$ STD	Gender Males(percent )	PreOp Myopic Rx (percent)
Light Adjustable Lens (n=12)	68.3 $\pm$ 8.8	4(33.3)	11(91.7)
PanOptix (n=16)	62.2 $\pm$ 8.5	8(50)	10(62.5)
Synergy (n=1)	64	1(100)	1(100)
Vivity (n=12)	64.1 $\pm$ 6.9	6(50)	7(58.3)

- **Post-operative satisfaction ages <65 (n=19) was 97%, while those  $\geq$ 65 (n=22) was 90%**

# Results

	Males (n=20)	Females (n=21)	PreOp Hyperopia (n=12)	PreOp Myopia (n=29)
<b>Patient Satisfaction</b>	<b>96%</b>	<b>91%</b>	<b>98%</b>	<b>91%</b>

	Percent Satisfaction	Avg BUCVA Distance	Avg BUCVA Int	Avg BUCVA Near
<b>Light Adjustable Lens (n=12)</b>	<b>97</b>	<b>20/21.3</b>	<b>20/19.2</b>	<b>20/25</b>
<b>PanOptix (n=16)</b>	<b>95</b>	<b>20/22.2</b>	<b>20/19.3</b>	<b>20/26.8</b>
<b>Synergy (n=1)</b>	<b>100</b>	<b>20/25</b>	<b>20/25</b>	<b>20/25</b>
<b>Vivity (n=12)</b>	<b>88</b>	<b>20/21.3</b>	<b>20/20.2</b>	<b>20/30</b>

# Results

- Light Adjustable Lens (LAL) has slight edge of BUCVA at all ranges
- LAL statistically significant (t-test,  $p < 0.05$ ) higher patient satisfaction compared to both PanOptix and Vivity
- Hyperopes higher satisfaction
- Males higher satisfaction
- Younger patients higher satisfaction



# Limitations and Future studies

- Limited sample size
- Did not look at final Mrx and satisfaction, considering variable refraction targets
- Repeat satisfaction survey 1 year out
- Future determine Toric IOL vs non Toric IOL satisfaction
- Determine if dissatisfaction due to objective reasons (IOL technology, refraction, etc) or subjective reasons (personalities, patient expectations, etc)

# Conclusion

- First study to our knowledge to quantify patient satisfaction relative to their own preoperative lifestyle questionnaires
- Lifestyle questionnaire great asset to tailor premium IOL selection for individual preferences and personalities, which enables greater patient satisfaction.

# Acknowledgements

- Dr Mitch Jackson
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