Non-tolerance: What can Epictetus tell us?

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Classification of spectacle non-tolerance

- Two main types (Priest, 1979)
  - Dispensing non-tolerance – main causes (Farrell, 2005):
    - Incorrect frame fitting
    - Optical centration problems
    - Spectacle magnification problems
    - Cosmetic reasons
    - Mis-communication
  - Prescription non-tolerance
    - "a prescription that the patient finds so hard to tolerate that they return to the prescriber" (Freeman & Evans 2010)

Goal of subjective refraction (Duke-Elder & Abrams, 1970)

- "to provide the patient with the optical correction nearest to the optical ideal with which he sees best and is most comfortable"
- Non-tols are really an "adverse effect of an optical prescription"

Adverse effects of optical Rxs (Ball, 1977)
### Are some non-tols inevitable?

**(Evans, 2012)**

- 95% limits of repeatability of subjective refraction are circa ±0.50D to 0.75D (MacKenzie, 2008; Shah et al., 2009).
- In spectacle non-tols the final Rx is within ±0.50D of the not tolerated one in 84% of cases. **(Evans, 2012)**
- A significant number of wearers notice errors in distance vision, as small as ±0.25D in sphere and cylinder. **(Miller et al., 1997)**
- So, some non-tols are inevitable.
- *Epictetus (AD 55-135):* It is not death or pain that is to be feared, but the fear of pain or death.
- Any person capable of angering you becomes your master; he can anger you only when you permit yourself to be disturbed by him.
- It is impossible for a man to learn what he thinks he already knows.

### PLAN

**CLASSIFICATION**
- WHY
- PREVALENCE
- AVOIDANCE
- CONCLUSIONS

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### Prevalence of prescription non-tols

**(Freeman & Evans, 2010; Evans, 2012)**

- Non-tols occur in 1.8% of eye exams.
- Range (7 optoms) 1.3% to 3.3%.
- This has been estimated to be 2.8% of those who are prescribed spectacle lenses. *(Howell Duffy et al., 2010)*
- But, this research excluded cases that had been dealt with by a dispensing optician. *(Freeman & Evans, 2010)*

### Demographics of prescription non-tols

**(Freeman & Evans, 2010)**

- 3091 eye exams in 6/12.
- Large independent optometric practice, 11 optoms in 5 consulting rooms.
- 42 non-tols; 59 included.
- Most common in 50-59y.
- 88% of non-tols presbyopes.
- Male = female.
- None were neophytes (not significantly different to control group).
- All could be resolved with an adjustment of 1.00D.

### Reasons for non-tol examinations

**(Freeman & Evans, 2010)**

<table>
<thead>
<tr>
<th>Reason for non-tol examination</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Prescription related</td>
<td>61%</td>
</tr>
<tr>
<td>Dispensing related</td>
<td>22%</td>
</tr>
<tr>
<td>Pathology</td>
<td>8.5%</td>
</tr>
<tr>
<td>Data entry error</td>
<td>6.8%</td>
</tr>
<tr>
<td>Binocular vision</td>
<td>1.7%</td>
</tr>
</tbody>
</table>

### Prescription related non-tols (61%)

**(Freeman & Evans, 2010)**

1. **Error measuring the sphere**
   - 20% of all non-tols
   - Half plus – all over-plussed
   - Half minus – most under-minussed
2. **Error with NV/IV addition**
   - ±17% of all non-tols
   - 2/3 of these over-plussed
3. **Errors with cyl**
   - ±10% of all non-tols
4. **Errors with sphere & cyl (3%)**
5. **Errors relating to adaptation**
   - ±10% of all non-tols
   - For 1/3 returned to old Rx.
Dispensing related non-tols (22%) (Freeman & Evans, 2010)

1. PAL adaptation
2. PAL heights
3. SV lens type
4. Frame adjustment
5. PAL prism thinning
   - A total of 1938 lenses were dispensed during the 6 month period.
   - In this study, the lenses that were most often not tolerated were
     - PALs (7.4%)
     - Vocational lenses (4.6%)
     - Single vision lenses (2.0%)
     - Bifocal lenses (0.8%)

Could the non-tol be from pathology?

- Look for lens clouding
- May explain unexpected Rx change
- Warn of likely effects on vision: decreased VA, glare/flare, needs more light when reading
- Is the VA as expected? If not:
  - Are there any macular changes?
  - Is the visual field normal?
  - Are there any coneal dystrophies?
- Are there any symptoms suggestive of peripheral retinal problems?
  - A central floater can cause variable VA & Rx
  - Dilated fundoscopy
  - GH changes (e.g., diabetes)

Pathology related non-tols (8.5%) (Freeman & Evans, 2010)

- Cataract in nearly all cases
  - Typically, large Rx change from nuclear sclerosis that caused non-tol when full Rx prescribed
  - One case of dry eye

Data entry non-tols (7%) (Freeman & Evans, 2010)

- Entering incorrect reading addition
- Entering incorrect spherical Rx
- Using intermediate prescription instead of a distance prescription,
- Making up near vision glasses instead of bifocals

Binocular vision anomalies (2%)

- Beware of convergence insufficiency associated with ageing (Freeman & Evans, 2010)
- Don’t prescribe multifocals to patients with a superior oblique paresis (Evans, 2007)
- Don’t prescribe monovision to patients with marked incomitancy (Evans, 2007)

Causes of non-tolerance (Farrell, Optician, 2016)

- 1 practice, survey of 110 patients returning for retest
- Retests 5.2% of eye exams
- Check the OCs of old glasses before prescribing new
- Beware anisometropia
- Establish patient’s visual requirements
- Give patients realistic expectations
- Prevention is better than cure
- Epictetus: Caretake this deed
Avoidance – dispensing
- Wrong product dispensed correctly or right product dispensed incorrectly?
- Many PAL issues can be corrected by frame adjustment
- Warn new aspheric wearers that need to adapt
- Be alert to issues relating to aniseikonia from anisometropia
- Off-axis blur in larger frames: consider
  - Frame fit
  - Face bow angle (bow)
  - Vertical lens centration

Avoidance – prescribing
- Epictetus: "events do not just happen, but arrive by appointment"
- Applying "If it ain’t broke don’t fix it" rule would prevent 1/4 of non-tols (Elliott & Howell-Duffy, 2015)
- Measure working distance & don’t over-plus
- Experienced practitioners modify their Rx to reduce risk of non-tol – partial prescribing

Avoidance – modifying (partial prescribing)
- Howell-Duffy et al. (2011):
  - The likelihood of partial prescribing increased by 34% for every 10y of experience
  - After a 40y career, practitioners would be 3x more likely to modify
- Practitioners underestimate problems from cyl axis, especially if oblique
- Examples of partial prescribing
  - If find less myopia than current glasses, don’t prescribe full reduction
  - If large cyl axis change, partially prescribe
  - First time hyperopic prescription, partially prescribe
  - Partially prescribe large changes in sphere or cyl

Avoidance – communicate
- Warn patients that the average time to adjust to spectacles is 1 week (Strang et al. 1998)
- Adaptation can take 1-2 weeks for large changes, especially in astigmatism (Elliott & Howell-Duffy, 2015)
- Give extra warning if problems more likely
  - E.g., first pair of PAL lenses
- Discourage patient from alternating between old & new glasses (Elliott & Howell-Duffy, 2015)

Psychological approach to a non-tol
- Set the scene
  - Greet as warmly as usual
  - “I’m sorry that you are having problems. The purpose of today is for me to find out what’s going on and to come up with a solution.”
  - “Thou shalt not blame or flatter any” (Epictetus, 55-135AD)
- Interpretation:
  - Rare for there to be smoke without fire
- Strategies
  - Be extra thorough – Epictetus: "no thing great is created suddenly"
  - Make sure that you have solved the problem
  - Explain what you can and can’t do
  - Epictetus: “only the educated are free"
Other considerations

- One study found increased risk of falls when Rx changed
  - Many of the changes in this study were >0.75D
  - Cummings et al. (2007)
- Look upon a re-check as an opportunity (see next slide)
  - Epictetus: "With every accident, ask yourself what abilities you have for making a proper use of it."

Are you a trusted source?

- What is a trusted source?
- Why you should want to be a trusted source?
  - Patients follow recommendations
  - Attract new referrals
  - Longevity of relationship
- Personal view
  - Gaining trust is non-linear
  - Losing trust is non-linear

Service excellence via non-tols

- Johnston (2004): the “recovery paradox”
  - The creation of more delight through good recovery than normal service
  - “What makes excellent service “excellent” and poor service “poor” is very much about how the organisations dealt with problems and queries.”
  - Epictetus: “It is difficulties that show what we are”
- Non-tols are a culture-defining moment
  - Give them more time
  - Most thorough exam
  - Listen more carefully
  - Epictetus: “We have two ears and one mouth so that we can listen twice as much as we speak.”
- Start with:
  - Listen — repeat — listen
- End with:
  - Explain — listen — explain
  - Epictetus: “only the educated are free”

PLAN

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Conclusions

- Over 80% of non-tols are presbyopes
- Don’t over-plus or under-minus
- The accuracy of refraction (±0.75) is worse than the mean adjustment needed to correct a non-tol (±0.50)
  - Discourage patients separating prescribing/supply
  - Partially prescribe
  - Demonstrate the change
  - Warn about adaptation
  - Consider non-tols as an opportunity by excelling at dealing with these challenging patients

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