

Understanding psychosocial differences between high, medium and low adherers to nebuliser treatment:

An exploratory analysis of data from CFHealthHub two centre pilot trial.

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Background & Objectives

- Adherence to treatment in people with CF is poor (Eakin et al., 2011), ranging from:
 - 31-53% for inhaled antibiotics
 - 53-79% for mucolytics
 - 41-72% for hypertonic saline
- We need to understand the key factors involved in adherence to enable us to develop effective interventions.
- This study compared high ($\geq 80\%$), medium (50-79%) and low adherers (<50%), on a range of psychosocial measures.

Method

- 64 participants recruited to the CFHealthHub pilot trial completed baseline measures:
 - Necessity and concern beliefs (BMQ-Specific)
 - Intention & Confidence
 - Treatment burden (CFQ-R)
 - Life Chaos (CHAOS)
 - Habit (SRBAI)
 - Subjective adherence
- Participants were provided with a chipped nebuliser which collected objective data about the number of treatments taken in following 14 days.
- This was used to calculate the percentage of treatments taken relative to the number prescribed.
- The measures were compared between high, medium and low adherers.

Conclusion

- Interventions to increase nebuliser adherence should focus on:
 - the development of realistic assessment of adherence (feedback)
 - beliefs about the necessity of treatment
 - the development of motivation (intention) and confidence
 - the development of habits and routine
- The CFHealthHub intervention includes all of these elements

Results

- Low adherers reported more life chaos (Fig 1) and weaker habits (Fig 3) than medium and high adherers. Habits were stronger in high adherers than medium adherers (Fig 3).
- High adherers had stronger intentions to adhere than low adherers, were more confident that they could adhere (Fig 4), and had marginally stronger necessity beliefs (Fig 5)
- Low adherers reported optimistic subjective adherence compared to high adherers who were more pessimistic (Fig 6).

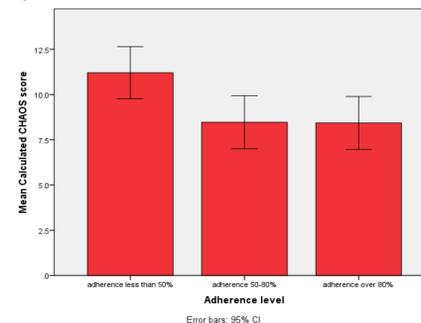


Fig 1: Life chaos by adherence category

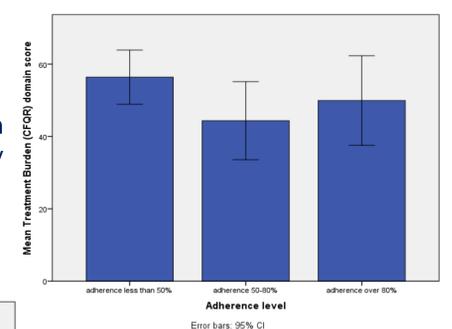


Fig 2: Treatment burden by adherence category

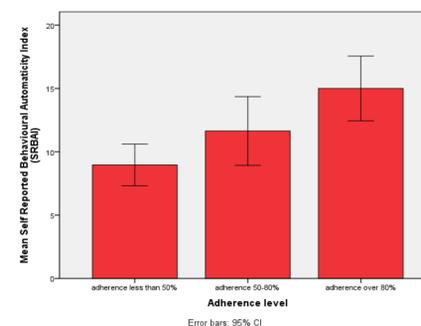


Fig 3: Habit by adherence category

Fig 4: Intention & Confidence by adherence category

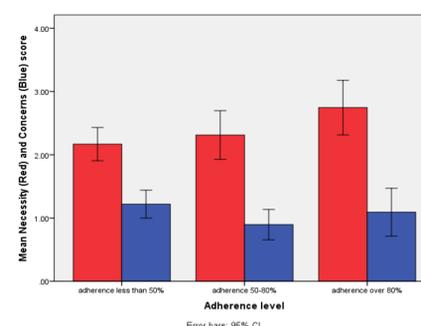
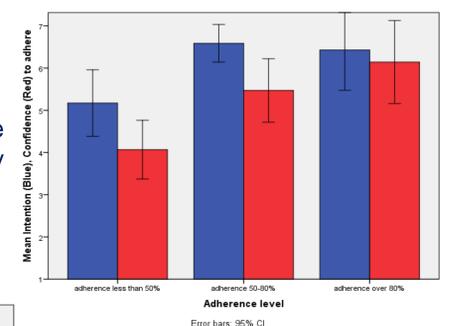
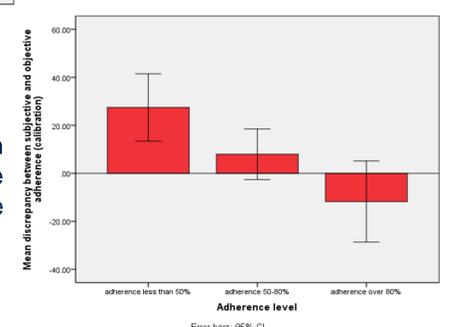


Fig 5: Necessity & Concerns by adherence category

Fig 6: Discrepancy between subjective & objective adherence



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