Being Kind to your Future Self:
The Ability to Delay Gratification & Its Impact on Health Decision-Making

Amanda Bruce, Ph.D.
March 12, 2015
www.bruceneuro.com
Gratitude

Jared Bruce, PhD
Morgan Glusman, BA
Delwyn Catley, PhD
Sharon Lynch, MD
Kathy Goggin, PhD
Derek Reed, PhD
Seung-Lark Lim, PhD
Lauren Strober, PhD
Abigail R. Ness, MA
David P. Jarmolowicz, PhD

National Multiple Sclerosis Society (HC 0138)
UMKC School of Graduate Studies
How can one be kind to one’s future self?
What happens when we get sick?
Risks versus Benefits

- 50% patients with chronic medical illness exhibit poor treatment adherence
- Poor treatment adherence takes many forms
- Not taking medication, skipping doses, or discontinuation
Risks versus Benefits

• People must balance the probability of current side effects against the probability of long-term benefits.
Multiple Sclerosis

• Autoimmune disorder striking women (2:1) typically diagnosed in middle adulthood

• Symptoms are varied

• Treatments include steroids for acute exacerbations & immuno-modulators for modifying disease course
Multiple Sclerosis

• 38 nonadherent and 39 adherent MS patients completed a series of hypothetical treatment scenarios with varied risk/benefit probabilities.

• Example.

Would you rather have a 10% improvement in quality of life in 5 years or a 50% chance of experiencing moderate side effects?
Probability of Taking Medications
Results

- Hyperbolic probability discounting model

- All patients reported decreased medication initiation as the probability of treatment efficacy decreased and the probability of treatment side effects increased.
Broader implications

• Medications

• Alcohol/drugs

• Risky behaviors

• Food
The Future
NEXT EXIT