iSAHIB

Intraindividual Study on Aging, Health and Interpersonal Behavior

Winter 2011

Burst 2 pushing into Burst 3

The study progresses quickly, and the lab is overflowing with both data and excitement. It is hard to believe Burst 3 is already upon us! This study continues to successfully progress because of the invaluable study members. We greatly appreciate that members continue to make room in their lives for sending us data and telling us about the ups and downs (and sideways) of daily life.

Some new members have recently joined the study to help us fill in some gaps in the data (e.g., 50—60 year old men). This means that while some members are in Burst 1, others are finishing Burst 2, and still others are beginning Burst 3. Data will continue streaming in through the end of the summer!

A big THANK YOU to all the members of our study!

iSummaries

At the end of Burst 2, we asked members to tell us what they would like to see as a part of the 'end-of-study' summaries we will be providing shortly after the conclusion of Burst 3 when each member's data set is complete. Here's some of what was suggested:

- Emotional data graphed over time and compared across bursts

- Levels of physical activity compared to others of same age

- The relationship between emotions and physical health

- How stress and sleep may impact emotions

- Self-esteem in relation to the type of interactions

- How many interactions were task- and social-oriented

- Age cohorts differences related to cost/benefit data

If you have other suggestions about what should be included in the individualized feedback, please tell us! Contact the iSAHIB Lab at 814-470-0123 or smartphone@psu.edu.

Sleeping less than 6 or more than 9 hours tends to lead to greater next-day pain symptoms
(Edwards, Almeida, Klick, Haythornthwaite, & Smith, 2008)

What is with the "i"?

You have seen this for the iPhone, iPad, and iPod. In iSAHIB we use the lower case letter "i" to represent "intraindividual" - and our 'one person at a time', individualized approach to data analysis.

For example:
iMean of happiness = within-person average of happiness ratings across time.

People who have positive social interactions experience lower intensity of physical pain
(Borsook & MacDonals, 2010).

Life happens!

We appreciate it when members let us know when there are updates or changes happening. Thank you for staying in touch!

iSAHIB the moving picture: real people, real lives, real data...

The iSAHIB team...

Name: Dr. David Conroy

Position: Associate Professor

Department: Kinesiology

David studies motivation and is a lead investigator for iSAHIB.

Name: Dr. Amy Lorek Dattilo

Position: Research Associate

Department: Human Development and Family Studies

Amy works with all aspects of the study and supervises the lab.

Name: Daniel Gonzalez

Position: Research Assistant

Department: Biobehavioral Health

Daniel is in charge of making sure study members get their compensation.

Name: Amanda Hyde

Position: Graduate Student

Department: Kinesiology

Amanda trains members entering burst answers helpline calls.

Name: Lindsey Stewart

Position: Research Assistant

Department: Psychology

Lindsey is the voice behind most phone calls made to study members.

Name: Anna Long

Position: Research Assistant

Department: Psychology

Anna creates feedback for members based on each individuals' survey data.

Name: Rae Ellen Devier

Position: Research Assistant

Department: Psychology

Rae keeps track of the activation and deactivation of the smartphones.

Name: Dr. Aaron L. Pincus

Position: Professor

Department: Psychology

Aaron studies personality and is a lead investigator for iSAHIB.

Name: Dr. Nilam Ram

Position: Assistant Professor

Department: Human Development and Family Studies

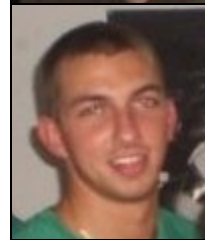Nilam studies individual variability and is a lead investigator for iSAHIB.

Name: Michael J. Roche

Position: Graduate Student

Department: Psychology

Mike trains members entering burst and answers helpline calls.

Name: Spencer Schrank

Position: Research Assistant

Department: Biology

Spencer organizes data from the pre-burst and post-burst surveys.

Name: Alyse Ahn

Position: Research Assistant

Department: Psychology

Alyse makes sure the smartphones are ready for members starting the study.

Name: Andre Plate

Position: Research Assistant

Department: Psychology

Andre maintains order of members' paperwork.

Name: Jeff Motter

Position: Research Assistant

Department: Psychology

Jeff organizes the thank you notes and newsletters sent to study members.

Highs and lows, ebbs and flows...

The iSAHIB project is funded by the National Institute on Aging as part of their initiative to promote the development of new tools for studying behavior, behavioral change, and prevention. The basic idea is that, like other disciplines, psychological and health science is moving from more 'static' representations of human health to more 'dynamic' ones.
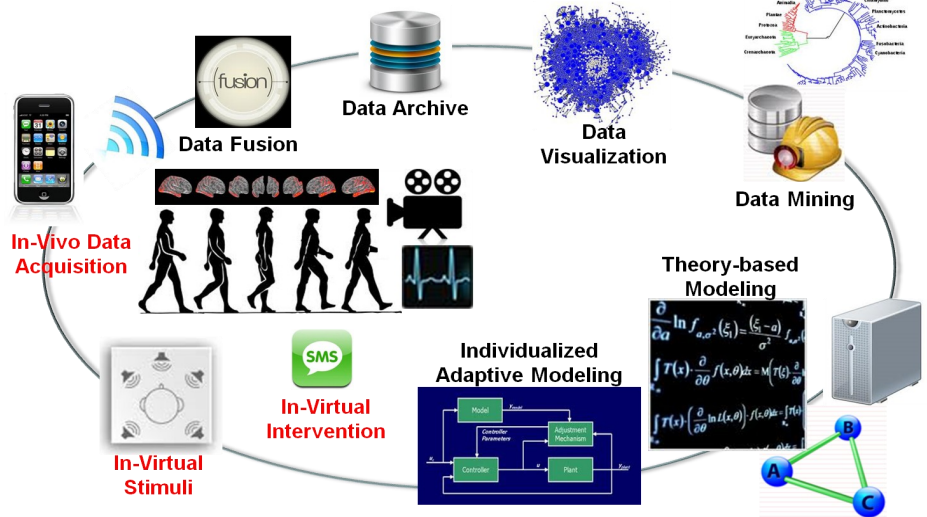
We hope to contribute to this (r)evolution by developing a more *personalized* framework for inquiry and intervention. Specifically, our project is focused on extending a set of data collection and analysis procedures—a real-time, cyber-infrastructure and study design—that will allow scientists and therapists to obtain a more complete picture of human functioning and health. The long-term goal is to provide individuals with tools that empower them to (a) identify patterns in their own behaviors, perceptions, thoughts, and feelings, and (b) access behavioral interventions that may help them achieve and maintain health and well-being, *as they go about their daily lives.* Figure 1 illustrates our emerging vision. The tools being used in iSAHIB brings us about half-way around the 'Real-time Carousel'—from In-Vivo Data Acquisition (as members complete their reports on the smart-phones) through

Figure 1. Real-time Carousel

to Theory-based Modeling (as we analyze the incoming data streams). **Our members are the engines.** It is their daily contributions of data, stories, and feedback that help refine the vision that personalized mathematical/analytical frameworks can contribute back to their daily lives—in the time and place it is lived.

The first data visualization tools will be rolled out soon. Our team of artists, software engineers, designers, and social scientists are building a flexible system that will allow individuals to watch, reflect on, and even interact with representations of how their own emotions, health and well-being change over time, and the information we derive from the data during statistical analysis. In the interface to the left, hovering as a circle the viewer can see a 'word-cloud' shift in size and configuration—each dimension depicting particularly meaningful patterns our statistical analysis has identified related to on-going health. Our goal is that such

visualization tools will assist both study members and the research team make meaning of the data streams—and to use the co-generated knowledge to better the human condition. For example, applied within iSAHIB we might find that for a given person, particular types of social interactions trigger certain stress responses. This information will be particularly useful to understand how his or her health and well-being is impacted.

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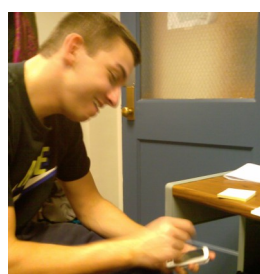
iSAHIB 2011

It's all about you!

Intraindividual Study on Aging, Health and Interpersonal Behavior:

Investigating links between social interactions, emotions, health and well-being over time.

Visit us on the web: http://isahib.weebly.com/

Stress? What stress?

When "in burst" and sending data, study members share the ups and downs associated with daily stressors . . . Members who received a call from us on November 20th know about one of our stress days! That Saturday, service for all of our smartphones was inadvertently shut down! Thanks to some attentive study members who alerted us to the problem, we were able to quickly diagnose the issue and get reconnected to the 3G wireless. We con-tacted about 40 study members that weekend to reactivate their smartphones. Fortunately, all the back-up systems worked. The data collected that day was cached and uploaded to the server as daily sending routines came back on-line. No data appears to be lost. Whew!

Did you try this?

The scanlife app is loaded on the study smart-phones, so try scanning this QR code Burst 3!

Gesturing during social interaction improves comprehension
(Kelly, Ozyurek, & Maris, 2010)

Thank you for helping to solve the problem!