GSA Webinar Series

Psychosocial Data in the HRS

DEVELOPED AND PRESENTED BY THE UNIVERSITY OF MICHIGAN WITH FUNDS FROM THE NATIONAL INSTITUTE ON AGING
Webinar Panel

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Quick Audience Poll

Please tell us who you are:
- Graduate Student/Postdoctoral Fellow
- PhD Faculty
- Dual-Degree Faculty
- Undergraduate Student
- Other
PSYCHOSOCIAL DATA IN THE HRS

April 30, 2019

Amanda Sonnega, PhD
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Jacqui Smith, PhD
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Assessment of psychosocial issues not an initial HRS goal

In 2003, NIA-HRS Data Monitoring Committee commissions Carol Ryff to report on psychosocial research opportunities in HRS

Initial HRS Psychosocial Working Group forms

Pilot launches in 2004

Full questionnaire first fielded in 2006 as part of the new enhanced face-to-face interview

Jacqui Smith joins HRS as a co-investigator
DESIGN OF ENHANCED FACE-TO-FACE (EFTF) INTERVIEW

<table>
<thead>
<tr>
<th></th>
<th></th>
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<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>EFTF</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sample</td>
<td>A</td>
<td>B</td>
<td>A</td>
<td>B</td>
<td>A</td>
</tr>
</tbody>
</table>

- A=First random rotating 50% sample
- B=Second random rotating 50% sample

- Psychosocial (as well as biomarker and physical measures) are available every wave on only half of the full core sample – either A or B
- Now 8-year longitudinal data for A (2006-2010-2014) and 8-year longitudinal data for B (2008-2012-2016)
MORE ABOUT DESIGN

- Interviewer leaves the Participant Lifestyle Questionnaire (PLQ) for participants to return by mail
  - Labeled section LB for Leave-Behind
  - Also sometimes called the SAQ since it is a self-administered questionnaire
- In coupled households, both members are asked to complete
- Eligibility
  - Changed slightly over time
  - Table 1 in user guide summarizes eligibility criteria
- New cohorts are added to the rotating design in 2010 and 2016
RESPONSE RATES

- Initial response rates very high
- 2010 and 2016 were lower with new cohorts completing up to 3-hour long baseline interview
- Interviewers trained to emphasize importance of PLQ
- Efforts seem to have paid off in 2014

<table>
<thead>
<tr>
<th>Wave</th>
<th>All Eligible Respondents</th>
</tr>
</thead>
<tbody>
<tr>
<td>2004</td>
<td>76.8</td>
</tr>
<tr>
<td>2006</td>
<td>87.7</td>
</tr>
<tr>
<td>2008</td>
<td>83.7</td>
</tr>
<tr>
<td>2010</td>
<td>73.1</td>
</tr>
<tr>
<td>2012</td>
<td>72.7</td>
</tr>
<tr>
<td>2014</td>
<td>77.8</td>
</tr>
<tr>
<td>2016</td>
<td>73.0</td>
</tr>
</tbody>
</table>
WEIGHTS

- Psychosocial weight variables adjust for nonresponse and are post-stratified to yield weighted results that are representative.
- Generated for respondents who were eligible in a given wave and who completed a questionnaire.
- Weight variables for the PLQ are in the Tracker file.
- XLBWGTR where X is wave indicator:
  - K=2006
  - L=2008
  - M=2010
  - N=2012
  - O=2014
- Use with STRATUM and SECU (also in Tracker).
ELIGIBILITY AND COMPLETION

Indicator variables available in the LB section data for each wave

Respondent type indicator: XLBRTYPE (where X is wave indicator)
- 1 = not EFTF R
- 2 = EFTF R, phone interview
- 3 = EFTF R, proxy or nursing home resident
- 4 = EFTF R, self-respondent, FTF interview, not in nursing home
- . (missing/blank) = no core IW

Eligibility indicator: XLBELIG
- 1 = eligible for Psychosocial and Lifestyle SAQ in this wave
- 5 = not eligible for Psychosocial and Lifestyle SAQ in this wave
- . (missing/blank) = no core IW

Completion indicator: XLBCOMP
- 1 = self-completion, returned by mail
- 2 = self-completion, completed by phone with interviewer
- 4 = completed by someone other than the designated respondent
- 5 = not completed, eligible for Psychosocial and Lifestyle SAQ
- . (missing/blank) = not completed, not eligible
High-level overview, then touching on just a few measures

All this detail and more in the user guide


- For each measure:
  - Question number in wave
  - Source and background citations
  - Guidance on coding, scaling, and alpha coefficients (where appropriate)

Some scales have been added/removed/altered since 2006

- Refer to Table 3 in user guide

Have fun reading the questionnaires!

- [https://hrs.isr.umich.edu/documentation/questionnaires](https://hrs.isr.umich.edu/documentation/questionnaires)
- Scroll down to section LB
# High-Level Overview of Content

<table>
<thead>
<tr>
<th>Quality of Social Ties</th>
<th>Personality</th>
<th>Self-related Beliefs</th>
</tr>
</thead>
<tbody>
<tr>
<td>Social Network composition</td>
<td>Extraversion</td>
<td>Personal mastery (control)</td>
</tr>
<tr>
<td>Quality of Relationships:</td>
<td>Neuroticism</td>
<td>Perceived constraints</td>
</tr>
<tr>
<td>Positive and Negative</td>
<td>Openness</td>
<td>Domain-specific control</td>
</tr>
<tr>
<td>Support received from</td>
<td>Agreeableness</td>
<td>Hopelessness</td>
</tr>
<tr>
<td>spouse/child/kin/friends</td>
<td>Conscientiousness</td>
<td>Subjective age*</td>
</tr>
<tr>
<td>Early parental relationships*</td>
<td>Impulsivity*</td>
<td>Self-perceptions of aging*</td>
</tr>
<tr>
<td>Frequency of contact with</td>
<td>Cynical hostility</td>
<td>Subjective social status</td>
</tr>
<tr>
<td>friends, children, family</td>
<td>Anxiety</td>
<td>Optimism/Pessimism</td>
</tr>
<tr>
<td>Loneliness</td>
<td>Anger</td>
<td>Need for Cognition*</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Work-related Beliefs</th>
<th>Lifestyle &amp; Stress</th>
<th>Subjective Well-being</th>
</tr>
</thead>
<tbody>
<tr>
<td>Work stress</td>
<td>Activities in daily life*</td>
<td>Life satisfaction</td>
</tr>
<tr>
<td>Work discrimination</td>
<td>Social participation</td>
<td>Domain satisfaction</td>
</tr>
<tr>
<td>Work satisfaction</td>
<td>Neighborhood cohesion</td>
<td>Depressive symptoms</td>
</tr>
<tr>
<td>Perceived Capacity to work*</td>
<td>Religiosity</td>
<td>Positive affect</td>
</tr>
<tr>
<td>Effort-reward balance</td>
<td>Discrimination</td>
<td>Negative affect</td>
</tr>
<tr>
<td>Work support</td>
<td>Lifetime traumas *</td>
<td>Purpose in life</td>
</tr>
<tr>
<td>Work/family priorities</td>
<td>Early life experiences *</td>
<td>Personal growth</td>
</tr>
<tr>
<td>Work/life balance</td>
<td>Stressful life events *</td>
<td>Financial strain</td>
</tr>
<tr>
<td></td>
<td>Ongoing stress experiences*</td>
<td>Experienced Well-being</td>
</tr>
</tbody>
</table>

* Not in all waves
SOCIAL SUPPORT/RELATIONSHIP QUALITY

- These questions ask about participants’ relationship with:
  - Spouse or partner
  - Children
  - Friends and relatives

<table>
<thead>
<tr>
<th>Question</th>
<th>A lot</th>
<th>Some</th>
<th>A little</th>
<th>Not at all</th>
</tr>
</thead>
<tbody>
<tr>
<td>How much do they really understand the way you feel about things?</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>How much can you rely on them if you have a serious problem?</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>How much can you open up to them if you need to talk about your worries?</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>How often do they make too many demands on you?</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>How much do they criticize you?</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>How much do they let you down when you are counting on them?</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>How much do they get on your nerves?</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
RELATIONSHIPS WITH CHILDREN

Positive support increases and negative support from children decreases at older ages

Source: HRS, 2014
## “BIG 5” PERSONALITY

<table>
<thead>
<tr>
<th>Openness</th>
<th>Conscientiousness</th>
<th>Extraversion</th>
<th>Agreeableness</th>
<th>Neuroticism</th>
</tr>
</thead>
<tbody>
<tr>
<td>Creative</td>
<td>Organized</td>
<td>Outgoing</td>
<td>Helpful</td>
<td>Moody</td>
</tr>
<tr>
<td>Imaginative</td>
<td>Responsible</td>
<td>Friendly</td>
<td>Warm</td>
<td>Worrying</td>
</tr>
<tr>
<td>Intelligent</td>
<td>Hardworking</td>
<td>Lively</td>
<td>Caring</td>
<td>Nervous</td>
</tr>
<tr>
<td>Curious</td>
<td>Careless (-)</td>
<td>Active</td>
<td>Softhearted</td>
<td>Calm (-)</td>
</tr>
<tr>
<td>Sophisticated</td>
<td>Thorough</td>
<td>Talkative</td>
<td>Sympathetic</td>
<td></td>
</tr>
<tr>
<td>Adventurous</td>
<td>* Impulsive (-)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Broad-minded</td>
<td>* Thrifty</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*Subscales added in 2010
Five-factor model personality traits and inflammatory markers: New data and a meta-analysis

Luchetti, Barkley, Stephan, Terracciano, & Sutin

*Psychoneuroendocrinology*, 2014

“The present work indicates a modest, but consistent, association between conscientiousness and a more favorable inflammatory profile, which may contribute to the role of conscientiousness in better health across the lifespan.”

***ORIGINAL ARTICLE***

**Allostatic Load and Personality: A 4-Year Longitudinal Study**

Stephan, Sutin, Luchetti, & Terracciano

*Psychosomatic Medicine*, 2016

“Higher allostatic load was related to higher neuroticism, lower extraversion, and lower conscientiousness at baseline, and to declines in extraversion, conscientiousness, and agreeableness over the 4-year period, controlling for demographic covariates.”
STRESS

- **Life events**
  - Six items in PLQ tapping major stressful events last 5 years
    - Job loss, unemployed more than 3 months, anyone in household unemployed more than 3 months, move to worse neighborhood, robbed, victim of fraud
  - PLQ not the only source: unemployment, financial losses, widowhood, new health diagnosis, in the core since 1992

- **Lifetime traumas**
  - Child death, natural disaster, combat, spouse or child drug addiction, physical attack, life-threatening illness, spouse or child life-threatening illness
  - By 2012, all cohorts had answered these questions
  - New cohorts will receive them together with other items about early life adversity, in the new Life History Mail Survey data (2015 and 2017)

- **Current stress**
  - Ongoing stressors (health problems, housing problems, financial strain, etc.)
  - Job stress

- Discrimination (major, lifetime, everyday)
## EVERYDAY DISCRIMINATION

**Q30** In your day-to-day life, HOW OFTEN HAVE ANY OF THE FOLLOWING THINGS HAPPENED TO YOU? (Mark (X) one box for each line.)

<table>
<thead>
<tr>
<th></th>
<th>Almost every day</th>
<th>At least once a week</th>
<th>A few times a month</th>
<th>A few times a year</th>
<th>Less than once a year</th>
<th>Never</th>
</tr>
</thead>
<tbody>
<tr>
<td>You are treated with less courtesy or respect than other people.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>You receive poorer service than other people at restaurants or stores.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>People act as if they think you are not smart.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>People act as if they are afraid of you.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>You are threatened or harassed.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>You receive poorer service or treatment than other people from doctors or hospitals.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Q31** If any of the above (in Q30) have happened to you, what do you think were the reasons WHY these experiences happened to you? (Mark (X) all that apply.)

- Your ancestry or national origin
- Your age
- Your gender
- Your race
- Your religion
- Your weight
- A physical disability
- An aspect of your physical appearance
- Your sexual orientation
- Your financial status
- Other

If Other, specify here: __________________________
People in the early midlife group (aged 50–59) reported more experiences of unfair treatment than the older age groups but were less likely to attribute their experiences to age discrimination.

After controlling for covariates, individuals in all age groups who perceived their own aging positively were less likely to report experiences of age discrimination.”
EXPERIENCES OF DISCRIMINATION

Percentage reported discrimination and attributions

- Age attribution only
- Age & other attributions
- Other attributions
- No attributions
- No discrimination

80s+ 70s 60s 50s
### SELF-RELATED BELIEFS

#### Q22.
**Please say how much you agree or disagree with each of the following statements. (Mark X one box for each line.)**

<table>
<thead>
<tr>
<th>Strongly disagree</th>
<th>Some what disagree</th>
<th>Slightly disagree</th>
<th>Slightly agree</th>
<th>Some what agree</th>
<th>Strongly agree</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>I often feel helpless in dealing with the problems of life.</strong></td>
<td>□</td>
<td>□</td>
<td>□</td>
<td>□</td>
<td>□</td>
</tr>
<tr>
<td><strong>Other people determine most of what I can and cannot do.</strong></td>
<td>□</td>
<td>□</td>
<td>□</td>
<td>□</td>
<td>□</td>
</tr>
<tr>
<td><strong>What happens in my life is often beyond my control.</strong></td>
<td>□</td>
<td>□</td>
<td>□</td>
<td>□</td>
<td>□</td>
</tr>
</tbody>
</table>

### CONSTRAINTS

#### Q23.
**Please say how much you agree or disagree with each of the following statements. (Mark X one box for each line.)**

<table>
<thead>
<tr>
<th>Strongly disagree</th>
<th>Some what disagree</th>
<th>Slightly disagree</th>
<th>Slightly agree</th>
<th>Some what agree</th>
<th>Strongly agree</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>I can do just about anything I really set my mind to.</strong></td>
<td>□</td>
<td>□</td>
<td>□</td>
<td>□</td>
<td>□</td>
</tr>
<tr>
<td><strong>When I really want to do something, I usually find a way to succeed at it.</strong></td>
<td>□</td>
<td>□</td>
<td>□</td>
<td>□</td>
<td>□</td>
</tr>
<tr>
<td><strong>Whether or not I am able to get what I want is in my own hands.</strong></td>
<td>□</td>
<td>□</td>
<td>□</td>
<td>□</td>
<td>□</td>
</tr>
</tbody>
</table>

### MASTERY

- Also domain-specific control beliefs
  - Health
  - Social Life
  - Work
Perceived constraints tend to increase and perceived mastery tends to decrease at older ages
Source: HRS 2014
Are people healthier if their partners are more optimistic? The dyadic effect of optimism on health among older adults

Kim, Chopik, & Smith
Journal of Psychosomatic Research, 2014
“Being optimistic and having an optimistic spouse were both associated with better health.”
TIME USE AND EXPERIENCED WELL-BEING

- 2012 through 2018
  - Modified “day reconstruction” questionnaire
  - Wake/sleep times
  - Rate health yesterday
  - General questions about yesterday
    - Did you feel any pain?
    - Were you well-rested when you woke up yesterday morning?
    - Was yesterday a normal (routine) day? Day of week?
  - Participation and time spent on targeted activities yesterday and time alone
    - Watch TV, run errands, walk or exercise, health-related activities
    - Socialize with friends, work or volunteer, travel or commute, at home alone
  - Affective ratings for each activity
    - Happy, interested, content, frustrated, bored, sad, pain
TIME USE AND EXPERIENCED WELL-BEING

Snapshots of Mixtures of Affective Experiences in a Day: Findings from the Health and Retirement Study

Smith, Ryan, Queen, Becker, & Gonzalez

“On average, older adults reported that 36% of the activities in their day provided some mixture of feelings (e.g., interested and frustrated).”

Activity Engagement and Activity-Related Experiences: The Role of Personality

Newton, Pladevall-Guyer, Gonzalez, & Smith
*The Journals of Gerontology Series B: Psychological Sciences and Social Sciences*, 2018

“Extraverts were more likely to socialize and experienced higher socializing-related positive affect, but did not spend more time socializing.”
USE THE DATA “AS IS”

- Cross-sectional analysis
  - Each wave of psychosocial data (2006-2016) is one half of the core sample and (using the weight) yields nationally representative results in that wave
  - Psychosocial variables are not in RAND but can be merged with RAND variables (especially household income and household wealth)

- Longitudinal analysis
  - When change in a psychosocial variable is of interest (e.g., growth curve modeling), just remember longitudinal information is every 4 years
  - Another use would be a psychosocial variable predicting an outcome from the core in the next biennial wave (at least half of it)
COMBINING TWO WAVES

- Create separate EFTF datasets for 2006 and 2008
- Rename the variables so they match (hint: this is also how you combine the weights)
- When you merge the two datasets by HHIDPN, they will concatenate or “stack”
SAS CODE TO STACK TWO WAVES

/*STEP 1: Create and sort 2006 PLQ file*/
proc sort data=h06lb_r out=hrs06dat (keep= hhid pn KEFTFASSIGN KLB037A);
    by hhid pn;
    if KEFTFASSIGN=2 then delete;
run;

/*If you wanted to trim the data to have no missing*/
if KLBELIG ne 1 then delete;
if KLBCOMP gt 2 then delete;
if KLBCOMP = . then delete;

/*STEP 2: rename the 2006 PLQ var*/
Data PLQ2006 rename KLB037A=LB037A; set PLQ2006;
run;

/*STEP 3: Now do it again to create a 2008 PLQ file*/
proc sort data=h08lb_r out=hrs08dat (keep= hhid pn LEFTFASSIGN KLB037A);
    by hhid pn;
    if LEFTFASSIGN=1 then delete;
run;

/*If you wanted to trim the data to have no missing*/
if LLBELIG ne 1 then delete;
if LLBCOMP gt 2 then delete;
if LLBCOMP = . then delete;

/*STEP 4: rename the 2008 PLQ var*/
Data PLQ2008 rename LLB037A=LB037A; set PLQ2008;
run;

/*STEP 5: Merge the two datasets*/
data PLQ0608;
    merge PLQ2006 PLQ2008;
    by hhid pn; run;
CREATE COUPLE-LEVEL FILES

- Can be used in Actor Partner Interdependence Models
- Involves joining files to add information from spouse’s interview to the respondent’s record
  - Hint: RAND files are already set up this way
- Create a “spouse” file:
  - Change PN to XPPN (X=wave indicator)
  - Rename variables by adding a spouse identifier
    - E.g. how much does your partner understand the way you feel?
      - 1=a lot  2= some  3=a little  4=not at all
      - (KLB005AS = KLB005A)
  - Keep only HHID, new PN, and new spouse variable of interest
/* STEP 1: create spouse PLQ file */
proc sort data=h06lb_r out=hrs06couple (keep= hhid pn KLB005A);
  by hhid pn;
run;

/* Step 2: Pull in Tracker (TRK) and merge with hrs06couple*/
proc sort data=TRK2016TR_R out=TRK (keep= hhid pn KPPN);
  by hhid pn;
run;

data PLQ2006spouse;
  merge TRK  hrs06couple;
  by hhid pn;
run;

/*STEP 3: Change person number to that of spouse/partner - this will be used for merge. Because of this change, the PN in hrs2006spouse is really the PN of the spouse, if any. Will be equal to 000 for people who don’t have partners*/
Data PLQ2006spouse; set PLQ2006spouse;
  PN = KPPN;
run;

/*STEP 4: now create new PLQ variable with “s” on the end for spouse variable*/
KLB005AS = KLB005A;
drop KLB005A; /*keep only the spouse variable you created*/
run;

/*STEP 5: delete those not coupled*/
Data PLQ2006spouse; set PLQ2006spouse;
  if PN=“000” then delete;
run;

/*STEP 6: Sort PLQ2006spouse*/
proc sort data=PLQ2006spouse;
  by hhid pn;
run;

/*STEP 7: Merge PLQ2006spouse back into original dataset (hrs06couple), keeping only those cases in hrs06couple*/
data PLQ2006couple;
  merge PLQ2006spouse (in=a) hrs06couple;
  by hhid pn; if a;
run;
QUESTIONS
Questions?

- We will not be using the “raise hand” feature today
- Please use the “questions” feature accessible on the right side of your screen
- If we do not get to all of the questions today, we will email responses after the webinar
Thank You

- Other Health and Retirement Study videos on GSA’s YouTube
  - Introduction to the Health and Retirement Study
  - Data on Cognition
  - Biomarkers and Physical Measures Data
  - HRS Sample Design, Weighting, and Complex Variance Estimation

- Save the Date: next HRS GSA Webinar--Tuesday, September 24, 2019, 12 to 1pm EDT.

hrsquestions@umich.edu
www.geron.org/webinar
Webinar Evaluation

In an effort for continual improvement, we would like to hear your thoughts. Please provide feedback by clicking the survey link at the end of the webinar.

Thank you again and we hope you enjoyed the program!
Thank You

GSA: Advancing Innovation in Aging

- The nation’s oldest and largest interdisciplinary organization devoted to research, education, and practice in the field of aging
  - 5,500+ interdisciplinary members around the world touching all facets of aging
- Mission
  - Promote multi- and interdisciplinary research in aging
  - Translate and disseminate research findings
  - Promote/advocate for education/awareness on aging across disciplines
  - Foster application of research into policy development
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