



MIDUS 3 Project 2:

National Study of *Daily Experiences*

Study Description

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Study Description

Specific Aims

The National Study of Daily Experiences (NSDE) is one of the in-depth studies that are part of the Midlife in the United States (MIDUS) longitudinal study of health and well-being. The purpose of the NSDE is to examine the day-to-day lives, particularly the daily stressful experiences, of a subsample of MIDUS respondents. Although previous daily diary research has advanced our understanding of daily stress processes, there are important limitations in these studies that will be addressed in the NSDE. First, previous studies in this area have relied on small and often unrepresentative samples that limit the generalizability of findings. For this reason, the NSDE uses a large national sample of adults in the United States. Second, previous studies of individual differences in exposure and reactivity to daily events typically have examined only one source of variability, such as personality, to the exclusion of others. The NSDE corrects this problem by utilizing the data collected in the larger MIDUS survey on a wide array of sociodemographic and psychosocial variables to study the determinants of exposure and reactivity to daily stress. Third, previous studies have failed to investigate the role of genetics in both exposure and reactivity to daily stressors. The specific aims of the third wave of the NSDE (aka MIDUS 3 Project 2) are:

- (1) To assess age differences in the links between multiple aspects of daily stressors (e.g., frequency, content, severity, and appraised threat) and daily physical and emotional well-being change over 20 years during adulthood;
- (2) To examine vulnerability and resilience factors for exposure and emotional reactivity to daily stressors, and how these factors vary by age;
- (3) To investigate age differences in how self-reported daily stress processes disrupt diurnal rhythms of salivary cortisol; and
- (4) To assess the extent to which genetic and environmental influences contribute to daily stressor exposure and reactivity, as well as potential moderation of these influences by age.

Sample and Procedure

These aims were addressed by collecting and analyzing data from the third wave of the National Study of Daily Experiences (NSDE 3). The first wave of NSDE (NSDE I) consisted of an 8-day telephone diary study of 1,499 adults ranging in age from 25-74 years. This 1996 U.S. national sample is comprised of 11,578 daily interviews. The second wave of NSDE (NSDE 2; 2004-2009) repeats the 8-day protocol with the addition of multiple assessments of daily cortisol (4 occasions \times 4 days). NSDE 2 included 2,022 participants (ages 33-84) who completed 16,176 daily interviews and 26,902 saliva samples. In 2011, a new cohort of adult sample were recruited to participate in the MIDUS Refresher study. A random subsample of the MIDUS Refresher cohort participated in the NSDE Refresher. This new cohort followed the same protocol as MIDUS Project 2 cohort consisting of an 8-day telephone diary study

protocol combined with multiple assessments of daily salivary cortisol (4 occasions \times 4 days). The NSDE Refresher included 782 participants (ages 25-75) who completed 5,849 daily interviews and 10,175 saliva samples.

The NSDE 3 (2016-2020) followed the same protocol as NSDE 2 and NSDE Refresher cohort, consisting of an 8-day telephone diary study of self-reported daily stressors and well-being combined with multiple assessments of daily salivary cortisol (4 occasions \times 4 days). NSDE 3 included 1,236 adults. Participants in NSDE 3 were a random subsample of the cohort who participated in the MIDUS 3 Project 1. A rich set of sociodemographic, physical health, personality, and cognitive measures assessed by MIDUS Projects 1 and 3 were used to predict exposure as well as physical and emotional reactivity to daily stressors. In addition, data from Projects 4 and 5 allowed us to examine how daily stress processes measured in NSDE 3 were related to neurobiological indicators of health (e.g., allostatic load, including inflammatory processes, neuroendocrine regulation, cardiovascular risk factors; cerebral activation asymmetry). All of these questions were examined in a genetically informative sample to test how these processes are moderated by both genetic and environmental influences.

The daily diary completion rates among NSDE 3 participants were: 75.5% of the respondents have completed all eight interview days, 88.8% completed at least seven interview days, and 93.3% completed at least six interview days. In total, the data set is comprised of 9,301 days out of a possible 9,888 ($N=1,236 \times 8$ days) yielding a completion rate of 94.0%.

As in the second wave of NSDE, participants completed short telephone interviews about their daily experiences across eight consecutive days. On the final interview day, participants answered several questions about their previous week. Data collection is spread throughout the year, allowing for the examination of seasonal variation in daily experiences. Data collection consists of separate "flights" of interviews with each flight representing the eight-day sequence of interviews from approximately 20 respondents. The entire interview was CATI programmed, which enabled us to incorporate skip patterns and open-ended probe questions as well as to keypunch data during the interview. This has allowed us to clean data throughout data collection. To boost the response and retention rates, several strategies have been implemented. For example, approximately one week prior to contact, respondents in the NSDE are sent a check for \$25 along with a recruitment letter explaining the study and when we would be calling them. We also set up a toll free 800 number that respondents could call to set up or change appointments.

Measures

A wide range of information was obtained using the daily telephone interview. A detailed codebook of all of the items in the telephone interview along with a coding manual for the open ended responses also is available. Following is a brief outline of the types of information we obtained.

Introduction Section: Descriptive Information about the Respondent and the Day of the Interview

The beginning of the interview consists of demographic information about the respondent and characteristics about the day of the interview (e.g., study day, day of week). This information determines the question time frame for the rest of the interview. For example on the first day of interviewing, the time frame for the questions refers to the past 24 hours (“since this time yesterday”). On subsequent days, the time frame is “since we spoke yesterday”. This helps prevent overlapping information across the days of interviewing.

Section A: Time Use, Giving, and Volunteering

Questions C2DAW1CH to C2DAC4M ask how much time respondents spent in various activities in the past 24 hours. In addition to questions that ask about time spent taking care of children, doing chores, working, watching television, participating in leisure activities, and engaging in physical activities, respondents also are asked about time spent giving and receiving formal and informal practical support and emotional support. In the third wave of NSDE, questions were asked pertaining to time spent sleeping and time spent providing assistance to someone with a disability or health problem.

Section B: Physical Health Symptoms and Cigarette and Alcohol Usage

Questions C2DB1A to C2DB1V ask whether respondents experienced specific symptoms that day (e.g., since they woke up in the morning). C2DB1A2 to C2DB1V2 ask respondents about the severity of the specific symptoms experienced that day.

C2DB2 and C2DB3 ask about the quantity of cigarette and alcohol usage in the past 24 hours.

Section C: Non-Specific Psychological Distress and Positive Affect

Questions C2DC1 to C2DC27 are similar to the negative and positive affect items asked in the first wave of NSDE but with a different daily time frame beginning in wave 2 (e.g., since respondents woke up in the morning). Participants were asked to rate the intensity of negative and positive affect on a scale of 0 to 4, where 0 = none of the time and 4 = all of the time.

Section D: Work Productivity and Cutbacks

Work productivity and cutbacks were assessed with variables C2DD1 to C2DD4. Respondents indicated the extent and reasons why they cut back any normal work activities, the time spent with others, and on normal activities.

Section F: Daily Inventory of Stressful Experiences (DISE)

The DISE is a semi-structured instrument that assesses a wide array of daily stressful experiences. The inventory consists of a series of stem questions asking whether certain types of events had occurred in the past 24 hours along with a set of guidelines for probing affirmative responses. The aim of the interviewing technique is to acquire a short narrative of each event that includes descriptive information (e.g., duration, timing, and overlap with other

events) as well as what was at stake for the respondent. All of the experiences are coded for several characteristics including: specific classification (e.g., work overload, argument with spouse, traffic problem); who was involved in event; and (c) severity of stress. See the Daily Inventory of Stressful Events (DISE) Interviewer and Expert Coding manuals for more information.

Positive Events

To examine the positive events in respondents' daily experiences, a set of questions (C2DF8 to C2DF13WB8) were added in the second wave of NSDE and updated in the third wave. Respondents were asked a series of questions regarding the most positive event that occurred in the last 24 hours, the time the positive event occurred, where the event occurred (e.g., work, home) and who else was involved in these positive events. The updates included questions about how participants felt about the positive event (e.g., how pleasant; how much of a surprise; how calm or proud).

Aging Awareness

Questions (C2DARC1 to C2DARC10) about individuals awareness of their own aging questions were added at Wave 3. These questions ask individuals about their experiences with aging related changes including changes in self-efficacy, awareness of health and functional changes, and differences in relationships. These questions are asked once during the week of daily diaries.

Section X: Memory Lapses

Daily memory lapse questions were first added in the Refresher wave and continued in the third wave (e.g., forget an errand or chore; forget to take a medication). These were used to assess self-reported daily cognitive function (C2DX1A to C2DX9A3). Respondents are asked whether they forgot a series of different items, and if they respond that they have forgotten anything in the list, two follow up questions are asked (bothered by forgetting, interfered with daily routine).

Section Y: Unconstructive Repetitive Thoughts

The third wave also included a measure of daily rumination/worry (C2DY1 to C2DY6). The respondents indicate the extent to which they had unwanted thoughts or had trouble focusing their attention on a scale from 0 to 4 (not at all to all the time) since the time they woke up that morning.

Sections HT, L, S, & W: Final Day Questions

The final interview on Day 8 ends with a series of questions (e.g., pertaining to the respondents' week. Most of the items parallel the daily questions. We intend to use these items to ascertain how accurately respondents recall these weekly experiences.

Section L: Money Management

A checklist was included of everyday financial behaviors that respondents might engage in to better manage their finances (C2DL2_D8 to C2DL10_D8). These include things like cheaper modes of transport, purchasing habits, and monitoring bank account. These items are asked once at the end of the week of diaries and responses are yes or no.

Section S: Discrimination Questions

In the second wave of NSDE, a set of discrimination questions was added. These were repeated in the third wave. Respondents were asked whether they experienced any of the following treatment (e.g., treated with less courtesy than other people; treated with less respect than other people) today. In addition to questions C2DS14A to C2DS14I, respondents were asked to report the reason for the treatment that they experienced (C2DS15_1 to C2DS1512).

Section: Medications and Cortisol

A set of medications and cortisol variables was added in the second wave of NSDE and repeated in the third wave. Respondents were asked whether they used certain medications during the days that they provided saliva (C2DMED1 to C2DMED7). C2DCORT to C2DCORBT pertain to saliva collection and cortisol information. Detailed information on saliva and cortisol variables can be found in the ‘Saliva Collection’ file.

Section: Constructed Variables/Scales

The final set of variables (C2DN_STR to C2DNEGAV) was constructed for the ease of the data user. Please see the ‘Scales Documentation’ file for more comprehensive information on the variable constructions.

Manuals

Daily Inventory of Stressful Events (DISE) Interviewer Manual

The Daily Inventory of Stressful Events (DISE) is designed to elicit reports of daily stressors. The DISE interview is brief and semi-structured, requiring interviewers to master techniques that differ significantly from the average American survey. The DISE interview consists of a series of stem and open-ended probe questions designed to enable researchers to estimate the contextual threat of any event a respondent reports. In order to obtain the type of objective information necessary for coding, interviewers are instructed to probe some of the responses in an extemporaneous, conversational manner. The training manual focuses on the following: training the interviewer to understand the basic ideas and principles that underlie rating the context of daily life events; probing for objective information about the event, as opposed to the respondent’s emotional reaction to the event; and learning to recognize the individual, contextual factors that may increase the severity of a particular event.

Daily Inventory of Stressful Events (DISE) Expert Coding Manual

The expert coding manual describes a coding scheme for open-ended responses of daily stressful events elicited through telephone interviews using the Daily Inventory of Stressful Events (DISE). The expert coding manual describes in depth the coding sequence for four different aspects of the coding scheme: (1) content classification: broad event classification and specific event classification, (2) focus of involvement, (3) severity, and (4) stake domains.