

DOCUMENTATION
of
SCALES
and
CONSTRUCTED VARIABLES
in
MIDJA
BIOMARKER

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INTRODUCTION

This document is intended as a basic reference for psychosocial scales in the MIDJA data sets. Most of the scales in MIDJA are included in one or both waves of the MIDUS survey (MIDUS 1/ MIDUS 2, Project 1), or biomarker (MIDUS 2, Project P4) data collection. Thus, the document provides comprehensive information regarding scale construction and usage of the scales, as well as the MIDUS source (project & instrument) and variable names for scales. Note, for some scales, the codes assigned to response options in MIDJA are in the opposite direction of those used in MIDUS. For example, the responses “all of the time, most of the time, sometimes, rarely, never” are assigned codes 1-5 respectively in MIDUS, while in MIDJA they are assigned codes 5-1, respectively. Consequently, there may be slight differences in scale construction (e.g. items are reverse coded in MIDUS, but not MIDJA). These differences are included in the documentation for a given scale, as appropriate. Scales and constructed variables are listed in the order that their source items appear in the SAQ or Clinic assessments.

To maximize comparability, MIDJA scales scores were constructed as described in the MIDUS documentation of scales. The MIDUS data and documentation are publicly available at the Inter-university Consortium for Political and Social Research (ICPSR) (<http://www.icpsr.umich.edu/index.html>). Those guidelines are replicated here. The documentation for each scale includes the following:

Scales/Items:

Scale name and Variable name – the variable name for a scale is presented in bold in brackets with uppercase letters following the scale name (e.g., CES-D Depression Scale [J2QCESD]).

Items: The scale name is reported along with the section and question number in the questionnaire. Individual items are then listed by question number.

Coding: Response options and corresponding numeric codes. In a few instances, the items for different subscales of a larger scale have different response options. In such cases the coding appears immediately after the items; in all other instances, the coding appears after the list of items for the final subscale.

Scaling: The method of scale construction is described, including information about interpreting the scale score.

Missing Values: The procedure for dealing with missing data varies across scales, due to differences in accepted practice over time and across disciplines. This variability is carried into MIDJA to maintain consistency with MIDUS. Users are free to apply their own protocols for dealing with missing data, if preferred, and re-construct the scale scores.

If a scale score is not created due to missing data it is coded as “98” for “NOT

CALCULATED (Due to missing data).” If a scale score is not created because the items did not apply to the respondent (e.g. not married or not working) it is coded as “99” for NOT CALCULATED (Due to INAPP data)”.

MIDUS Information: this section includes the MIDUS scale/subscale names and variable name(s) along with notes about differences in coding and scaling between the MIDUS and MIDJA questionnaires.

Additional Variables: some scales include items that are not used in scale construction. Details about these items are included in this section, as appropriate. If all available items are used in scale construction it is noted.

Psychometrics: - Cronbach’s alpha reliability coefficient is reported for most scales, along with the mean and standard deviation of the scale score.

References:

Source(s): “Sources” refer to articles that originally discussed the scale. If a source could not be identified, the name(s) of MIDUS or MIDJA investigators who provided guidance in creating them are listed.

Additional References: Other published studies that originally discussed the scale.

Studies using the scales: publications using the MIDUS or MIDAJ scale data.

Notes: This section will contain additional important information not covered in any of the above sections.

This document will be periodically revised and updated as more information is gathered, and researchers continue to work with the MIDUS and MIDJA data. If there are suggestions or comments, please contact midus_help@aging.wisc.edu. Moreover, if additional scales are constructed using these data, please contact us, so the work can be shared.

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SYMPTOMS AND CONDITIONS

Total Number of Symptoms and Conditions (MIDUS items only) [J2QSYMN]:

Items: 25 items – Biomarker SAQ, Question 1(a-w, plus the ‘other’ conditions reported in ee & ff).

(Have you ever had any of the following conditions/illnesses?)

Coding: 1 Yes; 2 No.

Scaling: [J2QSYMN] is constructed by counting the **total number** of “Yes” responses to the questions.

Missing Values: [J2QSYMN] is computed for all cases having at least one valid response to this set of items.

Total Number of Symptoms and Conditions (All MIDJA items) [J2QSYMN2]:

Items: 31 items – above 25 items and Biomarker SAQ, Question 1x-cc

(Have you ever had any of the following conditions/illnesses?)

x. Chronic back or neck problems

y. Frequent or severe headaches

z. Seasonal Allergies like hay fever

aa. Neurological problems like multiple sclerosis, Parkinson’s disease

bb. HIV infection or AIDS

cc. Epilepsy or seizures

Coding: 1 Yes; 2 No.

Scaling: [J2QSYMN2] is constructed by counting the **total number** of “Yes” responses to the questions.

Missing Values: [J2QSYMN2] is computed for all cases having at least one valid response to this set of items.

Any Symptoms and Conditions? (MIDUS items only) [J2QSYMX]:

Items: A dummy variable based on [J2QSYMN]

= 1 if [J2QSYMN] is greater than or equal to 1

= 2 if [J2QSYMN] is 0

Any Symptoms and Conditions? (All MIDJA items)[J2QSYMX2]:

Items: A dummy variable based on [J2QSYMN2]

= 1 if [J2QSYMN2] is greater than or equal to 1

= 2 if [J2QSYMN2] is 0

MIDUS Information:

MIDUS 2 Biomarker Project (P4) scale & variable names:

Total Number of Symptoms and Conditions (Ever) [B4HSYMN]

Any Symptoms and Conditions? [B4HSYMX]

Source(s):

Dr. Norito Kawakami provided the MIDJA item (Q1x-cc) from Section 17 (Chronic Conditions (CC)) of the World Mental Health Survey WMH-CIDI CAPI Interview.

http://www.hcp.med.harvard.edu/wmhcid/instruments_capi.php

CANCER TREATMENT

Currently in treatment for cancer [J2Q2A2]:

Items: J2 SAQ, Question 2, 2a [J2Q2] [J2Q2A]

Q2. Have you ever had cancer? Yes/No

Q2a. Are you currently in treatment for your cancer, in remission, or has it been cured? (1=Treatment, 2= Remission, 3=Cured).

Construction: The format of the MIDJA question about cancer treatment is different from the MIDUS item. Thus a new variable is created that corresponds directly with the variable in MIDUS phone interview Question A29 [b1pa29].

If R ever had cancer, and currently in treatment, [J2Q2A2] equal 1;

If R ever had cancer, and currently in remission or been cured, [J2Q2A2] equal 2;

If R ever had cancer, and currently situation unknown, [J2Q2A2] equal 7;

If R never had cancer, [J2Q2A2] equal 9.

Coding: 1= YES, 2= NO, 7= DON'T KNOW, 9= INAPP.

MIDUS Information:

MIDUS 2 Project 1 variable names:

Currently using any type of treatment or therapy for cancer? [B1PA29]

Source(s):

Dr. Norito Kawakami provided the MIDJA item (Q2a) from Section 17 (Chronic Conditions (CC)) of the World Mental Health Survey WMH-CIDI CAPI Interview.

http://www.hcp.med.harvard.edu/wmhcid/instruments_capi.php

PITTSBURGH SLEEP QUALITY

Note: The PSQ measures 7 components of sleep. These are constructed using the 19 self-rated items. Some of the items comprising these components have different response formats, thus, coding and scaling information is provided separately for each component.

Sleep Components/Items:

Subjective Sleep Quality [J2QSQ_S1]:

Item: - SAQ, Question 12.

During the past month, how would you rate your sleep quality overall?

Coding: 1 Very good; 2 Fairly good; 3 Fairly bad; 4 Very bad

Scaling: This sleep component is constructed by re-coding responses to Q12 such that 1=0, 2=1, 3=2, 4=3.

Sleep Latency [J2QSQ_S2]:

Items: - SAQ, Question 8 and 11a.

Q8. During the past month, how long (in minutes has it taken you to fall asleep at night?.

Q11a. During the past month, how often have you had trouble sleeping because you could not get to sleep within 30 minutes?

Coding: Responses to Q8 are reported in minutes. Q11a is coded as follows: 1 Not during the past month; 2 Less than once a week; 3 Once or twice a week; 4 Three or more times per week.

Scaling: This sleep component is constructed by converting minutes reported in Q8 to the following categories: 0 \leq 15 minutes; 1 16-30 minutes; 2 31-60 minutes; 4 > 60 minutes. Responses to Q11a are recoded such that: 1=0, 2=1, 3=2, 4=3. These categorical values are then summed and assigned to the following categories: 0 0; 1 1-2; 2 3-4; 3 5-6.

Sleep Duration [J2QSQ_S3]:

Item: - SAQ, Question 10.

Q4. During the past month, how many hours of actual sleep did you get at night (This may be different than the number of hours you spend in bed).

Coding: Responses to Q4 are reported in hours.

Scaling: This sleep component is constructed by converting hours reported in Q10 to the following categories: 0 > 7 hours; 1 6-7 hours; 2 5-6 hours; 4 < 5 hours.

Habitual Sleep Efficiency [J2QSQ_S4]:

Items: - SAQ, Question 7, 9, and 10.

- Q7. During the past month, when have you usually gone to bed at night?
Q9. During the past month, when have you usually gotten up in the morning?
Q10. During the past month, how many hours of actual sleep did you get at night (This may be different than the number of hours you spend in bed).

Coding: Responses to Q7 and 9 are reported as time of day. Responses to Q10 are reported in hours.

Scaling: This sleep component is constructed using the following algorithm: $\{ [Q10 / (Q7 - Q9)] \times 100 \}$. The percentages are then converted to categories as follows: 0 85-100%; 1 75-84%; 2 65-74%; 3 < 65%; 4 > 100%. Percentages above 100% are possible because due to inconsistencies between the time to bed, time to rise, and the number of hours of actual sleep reported by some participants.

Sleep Disturbance [J2QSQ_S5]:

Items: - SAQ, Question 11b-j.

During the past month, how often have you had trouble sleeping because you...

- b. Woke up in the middle of the night or early in the morning.
- c. Had to get up to use the bathroom.
- d. Could not breathe comfortably.
- e. Coughed and snored.
- f. Felt too cold.
- g. Felt too hot.
- h. Had bad dreams.
- i. Had pain.
- j. Other reason(s).

Coding: 1 Not during the past month; 2 Less than once a week; 3 Once or twice a week; 4 Three or more times per week.

Scaling: This sleep component is constructed by recoding responses to 11b-j, as follows: 1=0, 2=1, 3=2, 4=3. These items were summed for all cases with no missing data on these items. Mean substitution was used to create a score for cases with only one missing value. The scores were then converted to the following categories: 0 0; 1 1-9; 2 10-18; 3 19-27.

Use of Sleeping Meds [J2QSQ_S6]:

Item: - SAQ, Question 14.

During the past month, how often have you taken medicine (prescribed or “over the counter”) to help you sleep?

Coding: 1 Not During the Past Month; 2 Less than once a week; 3 Once or twice a week; 4 Three or more times a week.

Scaling: This sleep component is constructed by re-coding responses to Q14 such that 1=0, 2=1, 3=2, 4=3.

Daytime Dysfunction [J2QSQ_S7]:

Items: - PSQ, Question 13, 15.

Q13. During the past month, how much of a problem has it been for you to keep up enough enthusiasm to get things done?

Q15. During the past month, how often have you had trouble staying awake while driving, eating meals, or engaging in social activity?

Coding: Responses to Q6 are coded as follows: 1 No problem at all; 2 Only a very slight problem; 3 Somewhat of a problem; 4 A very big problem. Responses to Q8 are coded as follows: 1 Not During the Past Month; 2 Less than once a week; 3 Once or twice a week; 4 Three or more times a week.

Scaling: This sleep component is constructed by re-coding responses to Q13 & 15 such that 1=0, 2=1, 3=2, 4=3. These responses are then summed and converted to the following categories: 0 0; 1 1-2; 2 3-4; 3 5-6.

Global Sleep Scale [J2QSQ_GS]:

Items: - Sleep Components S1-S7 as described above.

Coding: Each sleep component is a 4 category item with values ranging from 0-3. The category descriptions vary across the components as described above.

Scaling: The Global Sleep score is constructed by summing the 7 sleep components for each case with complete data. Global Sleep scores are not computed for cases with a Habitual Sleep Efficiency greater than 100%.

MIDUS Information:

MIDUS 2 Biomarker Project (P4) scale & variable names:

Subjective sleep quality [B4SSQ_S1]

Sleep latency [B4SSQ_S2]

Sleep duration [B4SSQ_S3]

Habitual sleep efficiency [B4SSQ_S4]

Sleep disturbance range [B4SSQ_S5]

Use of sleeping medication [B4SSQ_S6]

Daytime dysfunction [B4SSQ_S7]

Global sleep scale [B4SSQ_GS]

Additional Variables: Item Q16 "During the past month, how often have you had problems feeling sleepy during the day" was added to this set of items.

Psychometrics:

Scale	Alpha	Mean	Std. dev
J2QSQ_S1	---	1.15	.658
J2QSQ_S2	---	.89	.845
J2QSQ_S3	---	.94	.682
J2QSQ_S4	---	.81	1.456
J2QSQ_S5	---	.88	.455
J2QSQ_S6	---	.25	.752
J2QSQ_S7	---	.88	.701
J2QSQ_GS	---	5.26	2.601

Source(s):

Buysse, Daniel J., Reynolds, Charles F., Monk, Timothy H., Berman, Susan R., and Kupfer, David J. 1988. "The Pittsburgh Sleep Quality Index: A New Instrument for Psychiatric Practice and Research." *Psychiatry Research*, 28, p. 193-213.

MARITAL STATUS

Marital Status at Biomarker Survey [J2QMARR]:

Items: J1 Survey, Question L1 [J1SL1]

J2 SAQ, Question 36 and 38 [J2Q36] [J2Q38]

Construction: If R's marital status has not been changed since MIDJA Project 1 survey, [J2QMARR] will equal to [J1SL1]; If R's marital status has been changed ([J2Q36]=1), [J2QMARR] will equal to [J2Q38].

Coding: There are total of 6 categories:

- 1 "MARRIED"
- 2 "SEPARATED"
- 3 "DIVORCED"
- 4 "WIDOWED"
- 5 "NEVER MARRIED"
- 6 "LIVING W/ SOMEONE".

MIDUS Information:

MIDUS 2 Biomarker Project (P4) scale & variable names:

Marital Status at P4 Interview [B4HMARR]

CENTER FOR EPIDEMIOLOGICAL STUDIES DEPRESSION INVENTORY (CES-D)

Note: throughout the following “R” indicates item is reverse coded before constructing the scale score.

Scales/Items:

CES-D DEPRESSION SCALE [J2QCESD]:

Items: 20 items – SAQ, Question 43 (a - t)

“During the past week...?”

- a.” I was bothered by things that usually don’t bother me.”
- b.” I did not feel like eating; my appetite was poor.”
- c.” I felt that I could not shake off the blues even with the help of my family and friends.”
- d.” I felt that I was just as good as other people.”(R)
- e.” I had trouble keeping my mind on what I was doing.”
- f.” I felt depressed.”
- g.” I felt that everything I did was an effort.”
- h.” I felt hopeful about the future.”(R)
- i.” I thought my life had been a failure.”
- j.” I felt fearful.”
- k.” My sleep was restless.”
- l.” I was happy.”(R)
- m.” I talked less than usual.”
- n.” I felt lonely.”
- o.” People were unfriendly.”
- p.” I enjoyed life.”(R)
- q.” I had crying spells.”
- r.” I felt sad.”
- s.” I felt that people dislike me.”
- t.” I could not get “going”.

Coding: 1 Rarely or none of the time; 2 Some or a little of the time; 3 Occasionally or moderate amount of the time; 4 Most or all of the time.

Scaling: To maintain consistency with the literature, all items were recoded to a 0-3 scale (1=0, 2=1, 3=2, 4=3). Items marked with (R) were then reverse-coded so that high scores reflect higher standing in the scale. Unless otherwise indicated above, scale scores were computed by summing

across all items for which there was no missing data. Mean substitution was used in cases with only one missing value.

CES-D Depressive Affect Subscale [B4QCESDDA]:

Items: 7 items - Question 43 (c, f, i, j, n, q, r) above.

CES_D Positive Affect Subscale [B4QCESDPA] :

Items: 4 items - Question 43 (d, h, l, p) above.

CES_D Somatic Complaints Subscale [B4QCESDSC] :

Items: 7 items - Question 43 (a, b, e, g, k, m, t) above.

CES-D Interpersonal Subscale [B4QCESDI] :

Items: 2 items - Question 43 (o, s) above.

Coding: 1 Rarely or none of the time; 2 Some or a little of the time; 3 Occasionally or moderate amount of the time; 4 Most or all of the time.

Scaling: To maintain consistency with the literature, all items were recoded to a 0-3 scale (1=0, 2=1, 3=2, 4=3). Scale scores were computed by summing across all items for which there was no missing data. Mean substitution was used in cases with only one missing value.

MIDUS Information:

MIDUS 2 Biomarker Project (P4) scale & variable names:

CES-D Depressive Affect Subscale [B4QCESDDA]

CES-D Positive Affect Subscale [B4QCESDPA]

CES-D Somatic Complaints Subscale [B4QCESDSC]

CES-D Interpersonal Subscale [B4QCESDI]

CES-D Depression Scale [B4QCESD]

Additional Variables: All available items used in scale construction.

Psychometrics:

CESD Depression Inventory:

Scale	Alpha	Mean	Std. dev
J2QCESDDA	.842	1.965	2.942
J2QCESDPA	.652	4.561	2.856
J2QCESDSC	.780	2.889	3.318
J2QCESDI	.552	0.432	0.955
J2QCESD	.819	12.692	6.853

Source(s):

- Devins, G.M., and Orme, C.M. 1985. "Center for Epidemiologic Studies Depression Scale." *Test Critiques*, 21(3), 267-283.
- Radloff, L.S. 1977. "The CES-D Scale: A self-report depression scale for research in the general population." *Applied Psychology Measurement*, 1(3), 385-401.
- Roberts, R.E., and Vernon, S.W. 1983. "The center for epidemiologic studies depression scale: Its use in a community sample." *American Journal of Psychiatry*, 140(1), 41-46.
- Turner, R.J., and Avison, W.R. 1992. "Innovations in the measurement of life stress: Crisis theory and the significance of event resolution." *Journal of Health and Social Behavior*, 33, 36-50.

SPIELBERGER TRAIT ANXIETY INVENTORY

Note: throughout the following “R” indicates item is reverse coded before constructing the scale score.

Scales/Items:

TRAIT ANXIETY [J2QTA_AX]:

Items: 20 items – SAQ, Question 44(a-t).

Circle the number that best describes how you *generally* feel.

- a. “I feel pleasant. “(R)
- b. “I tire quickly. “
- c. “I feel like crying. “
- d. “I wish I could be as happy as others seem to be. “
- e. “I am losing out on things because I can’t make up my mind soon enough. “
- f. “I feel rested. “(R)
- g. “I am “calm, cool, and collected”. (R)
- h. “I feel that difficulties are piling up so that I cannot overcome them. “
- i. “I worry too much over something that really doesn’t matter. “
- j. “I am happy. “(R)
- k. “I am inclined to take things hard. “
- l. “I lack self-confidence. “
- m. “I feel secure. “(R)
- n. “I try to avoid facing a crisis or difficulty. “
- o. “I feel blue. “
- p. “I am content. “(R)
- q. “Some unimportant thought runs through my mind and bothers me. “
- r. “I take disappointments so keenly that I can’t put them out of my mind. “
- s. “I am a steady person. “(R)
- t. “I get in a state of tension or turmoil as I think over my recent concerns and interests. “

Coding: 1 Not at all; 2 A Little; 3 Mostly; 4 Very Well.

Scaling: Items marked with (R) were reverse-coded so that high scores reflect higher standing in the scale. Unless otherwise indicated above, scale scores were computed by summing across all items for which there was no missing data. Mean substitution was used in cases with only one missing value.

MIDUS Information:

MIDUS 2 Biomarker Project (P4) scale & variable names:

TRAIT ANXIETY [B4QTA_AX]:

Note: The coding of the items in MIDJA and MIDUS are slightly different. The MIDUS coding are: 1 Almost never; 2 Sometimes; 3 Often; 4 Almost always.

Additional Variables: All available items used in scale construction.

Psychometrics:

Scale	Alpha	Mean	Std. dev
J2QTA_AX	.898	39.511	9.083

Source(s):

Spielberger, C. D. (1983). Manual for the state–trait anxiety inventory (Form Y) ("Self-evaluation questionnaire"), Consulting Psychologists Press, Palo Alto, CA.

Spielberger, C. D. (1989). State–trait anxiety inventory: a comprehensive bibliography. , Consulting Psychologists Press, Palo Alto, CA.

SPIELBERGER TRAIT ANGER

Scales/Items:

Trait Anger [J2QTA_AG]:

Items: 15 items – SAQ, Question 45 (a - o)

(Circle the number that best describes how you generally feel.)

- a. "I have a fiery temper."
- b. "I am quick tempered."
- c. "I am a hotheaded person."
- d. "I get annoyed when I am singled out for correction."
- e. "It makes me furious when I am criticized in front of others."
- f. "I get angry when I'm slowed down by others mistakes."
- g. "I feel infuriated when I do a good job and get a poor evaluation."
- h. "I fly off the handle."
- i. "I feel annoyed when I am not given recognition for doing good work."
- j. "People who think they are always right irritate me."
- k. "When I get mad, I say nasty things."
- l. "I feel irritated."
- m. "I feel angry."
- n. "When I get frustrated, I feel like hitting someone."
- o. "It makes my blood boil when I am under pressure."

Trait Anger/Angry Temperament [J2QTA_AT]:

Items: 4 items – SAQ, Question 45 (a, b, c, h) above.

Trait Anger/Angry Reaction [J2QTA_AR]

Items: 4 items – SAQ, Question 45 (e, f, g, i) above.

Coding: 1 Not at All; 2 A Little; 3 Mostly; 4 Very Well.

Scaling: Scale scores were computed by summing across all items for which there was no missing data. Mean substitution was used in cases with only one missing value.

MIDUS Information:

MIDUS 2 Biomarker Project (P4) scale & variable names:

Trait Anger [B4QTA_AG]

Trait Anger/Angry Temperament [B4QTA_AT]

Trait Anger/Angry Reaction [B4QTA_AR]

Note: The coding of the items in MIDJA and MIDUS are slightly different. The MIDUS coding are: 1 Almost never; 2 Sometimes; 3 Often; 4 Almost always.

Additional Variables: All available items used in scale construction.

Psychometrics:

Scale	Alpha	Mean	Std. dev
J2QTA_AG	.904	26.248	6.961
J2QTA_AT	.755	6.866	2.130
J2QTA_AR	.832	7.785	2.501

Source(s):

Spielberger, C. D. (1996). State-Trait Anger Expression Inventory: Professional manual. Odessa, FL.

POSITIVE EVENTS SCALE

Note: scale scores have not been constructed for this scale as yet.

Scales/Items:

Positive Events Scale:

Items: 48 items – SAQ, Question 46 (a-ww)

The following questions are about positive experiences you may have had over the past month. Please indicate how often you had each experience and whether it was pleasant, enjoyable or rewarding. Over the past month how often did you spend time.... (If at least once, how Pleasant, Enjoyable, or Rewarding was this?)

- a. Appreciating nature
- b. Meeting someone new
- c. Planning trips or vacations
- d. Reading stories, novels, poems, or plays
- e. Helping someone
- f. Breathing clean air
- g. Saying something clearly.
- h. Thinking about something good in the future.
- i. Laughing
- j. Being with animals
- k. Having a frank and open conversation
- l. Going to a party
- m. Giving thanks for daily life.
- n. Being with friends
- o. Being popular at a gathering
- p. Enjoying TV or movies
- q. Sitting in the sun
- r. Seeing good things happen to family & friends
- s. Planning or organizing something
- t. Having a lively talk
- u. Being with family
- v. Taking a relaxing bath
- w. Seeing beautiful scenery
- x. Eating good meals
- y. Having spare time

- z. Being noticed as sexually attractive
- aa. Learning to do something new
- bb. Complimenting or praising someone
- cc. Thinking about people I like
- dd. Kissing
- ee. Praying or meditating
- ff. Doing a project my way
- gg. Having peace and quiet (DROPPED)*
- hh. Being relaxed
- ii. Sleeping soundly at night
- jj. Having a good fitness workout
- kk. Amusing people
- ll. Being with someone I love
- mm. Having satisfying sexual relations with a partner.
- nn. Watching sports
- oo. Being with happy people
- pp. Smiling at people
- qq. Being with my spouse/partner
- rr. Teaching or advising someone
- ss. Being complimented or told that I have done well
- tt. Being told that I am loved
- uu. Seeing old friends
- vv. Shopping
- ww. Feeling no pain.

*This item was not included in MIDJA per the recommendation of Dr. Mayumi Karasawa.

Coding:

How often? 1 Never; 2 1-6 times; 3 7+ times

How Pleasant, Enjoyable, or Rewarding was this? 1 Neutral or unpleasant; 2 Somewhat; 3 Very.

Scaling:

We are not currently constructing scale scores for these items.

MIDUS Information:

MIDUS 2 Biomarker Project (P4) scale & variable names: Scale scores have not been created as yet.

Additional Variables: None.

Psychometrics: Not Applicable at this time

Source(s):

MacPhillamy, D.J., and Lewinsohn, P.M. (1982). The Pleasant Events Schedule: Studies on reliability, validity, and scale intercorrelation. *Journal of Consulting and Clinical Psychology*, 50, 363-380.

Note: a. The above items include a subset of items in the Pleasant Events Schedule. In addition some items were modified to be more inclusive, and others were created by the investigators.

b. For MIDJA item gg. "Having peace and quiet" (in the MIDUS version) was dropped at the request of Dr. Mayumi Karasawa for cultural reasons.

SOCIAL OBLIGATION SCALE

Scales/Items:

Public Community [J2QSO_PC]:

Items: 3 items- SAQ, Question 47 (a, b, c)

The following questions are about the ways you generally interact with others, including your sense of obligation towards others. Please circle the number that corresponds to how much you agree or disagree with the following statements.

- a. "I feel obligated to keep fully informed about national news and public issues."
- b. "I feel obligated to vote in local and national elections."
- c. "I feel obligated to volunteer time or money to social causes I support."

PRIVATE FAMILY/FRIENDS

3 ITEMS [J2QSO_PF]:

Items: 3 items- SAQ, Question 47 (d, e, f - below)

4 ITEMS [J2QSO_PX]:

Items: 4 items- SAQ, Question 47 (d, e, f, g)

- d. "I feel obligated to drop plans when members of my family seem very troubled."
- e. "I feel obligated to contact family members on a regular basis."
- f. "I feel obligated to give money to a friend in need, even if this makes it hard to meet my own needs."
- g. "I feel obligated to take my divorced or unemployed adult child back into my home."

Private/Ingroup Work [J2QSO_IW]:

Items: 3 items- SAQ, Question 11 (j, k, l - below)

Good Work [J2QSO_GW]:

Items: 5 items- SAQ, Question 47 (h, i, j, k, l)

The following questions are about the ways you generally interact with others, including your sense of obligation towards others. Please circle the number that corresponds to how much you agree or disagree with the following statements.

- h. "My work makes the world a better place." ^c
- i. "I think about the harm my work might do to other people." ^c
- j. "I help out my colleagues/coworkers at work." ^c
- k. "I am the one to volunteer to do unwanted tasks at work." ^c

I. "I am known for my honesty and integrity at work." ^c

Coding: 1 Strongly disagree; 2 Disagree; 3 Slightly disagree; 4 Neutral; 5 Slightly Agree; 6 Agree; 7 Strongly Agree

Scaling: The scales were constructed by computing the mean across all items for cases having 0 or 1 missing value.

MIDUS Information:

MIDUS 2 Biomarker Project (P4) scale & variable names:

Public community [B4QSO_PC]

Private family/friends (3 items) [B4QSO_PF]

Private family/friends (4 items) [B4QSO_PX]

Private/ingroup work [B4QSO_IW]

Good work [B4QSO_GW]

Additional Variables: All available items used in scale construction.

Psychometrics:

Scale	Alpha	Mean	Std. dev
J2QSO_PC	.678	5.618	.900
J2QSO_PF	.458	5.025	.932
J2QSO_PX	.534	4.759	.913
J2QSO_IW	.688	4.726	.907
J2QSO_GW	.731	4.399	.892

Source(s):

Gardner, H., Csikszentmihalyi, M., & Damon, W. (2001). Good work: When excellence and ethics meet. New York, NY: Basic Books.

Rossi, A.S. (2001). Caring and doing for others: Social responsibility in the domains of family, work, and community. Chicago: University of Chicago Press.: Ch. 3 Domains and Dimensions of Social Responsibility: A sociodemographic profile.

RELATIONAL-INTERDEPENDENT SELF CONSTRUAL SCALE

Note: throughout the following “R” indicates item is reverse coded before constructing the scale score.

Scales/Items:

Interdependence [J2QRISC]:

Items: 10 Items- SAQ, Question 48(a-j).

The following questions are about how your views of yourself are linked to your relations with others. Please circle the number that corresponds to how much you agree or disagree with the following statements.

- a. “My close relationships are an important reflection of who I am.”
- b. “When I feel very close to someone, it often feels to me like that person is an important part of who I am.”
- c. “I usually feel a strong sense of pride when someone close to me has an important accomplishment.”
- d. “I think one of the most important parts of who I am can be captured by looking at my close friends and understanding who they are.”
- e. “When I think of myself, I often think of my close friends or family also.”
- f. “If a person hurts someone close to me, I feel personally hurt as well.”
- g. “Overall, my close relationships have very little to do with how I feel about myself.”(R)
- h. “My close relationships are unimportant to my sense of what kind of person I am.”(R)
- i. “My sense of pride comes from knowing whom I have as close friends.”
- j. “When I establish a close friendship with someone, I usually develop a strong sense of identification with that person.”

Coding: 1 Strongly disagree; 2 Disagree; 3 Slightly disagree; 4 Neutral; 5 Slightly Agree; 6 Agree; 7 Strongly Agree

Scaling: Items marked with (R) were reverse-coded so that high scores reflect higher standing in the scale. The scales were constructed by computing the mean across all items for cases having 0 or 1 missing value.

MIDUS Information:

MIDUS 2 Biomarker Project (P4) scale & variable names: **Independence [B4QRISC]**

Additional Variables:

Items k & l are new and not currently included in constructed scores.

48k. "I can walk in a room and immediately figure out the group's mood."

48l. "I am not affected by the moods of the people who are around me."

Psychometrics:

Scale	Alpha	Mean	Std. dev
J2QRISC	.754	4.893	.655

Source(s):

Cross, S. E, Bacon, P. L., & Morris, M. L. (2000). The Relational-Interdependent Self-Construal and Relationships. *Journal of Personality and Social Psychology*, 78 (4), 791-808.

SYMPATHY SCALE

Note: throughout the following “R” indicates item is reverse coded before constructing the scale score.

Scales/Items:

Sympathy [J2QSYMP]:

Items: 4 items- SAQ, Question 48(m,n,o,p).

The following questions are about how your views of yourself are linked to your relations with others. Please circle the number that corresponds to how much you agree or disagree with the following statements.

m. “Even when things are going well for me, I can’t be happy if I have a friend who is in trouble.”

n. “I am moved when I hear of another person’s hardship.”

o. “I think nothing is more important than to be sympathetic to others.”

p. “My sympathy has its limits.”(R)

Note: Items k & l are new and not currently included in a scale.

Coding: 1 Strongly disagree; 2 Disagree; 3 Slightly disagree; 4 Neutral; 5 Slightly Agree; 6 Agree; 7 Strongly Agree

Scaling: Items marked with (R) were reverse-coded so that high scores reflect higher standing in the scale. The scales were constructed by computing the mean across all items for cases having 0 or 1 missing value.

MIDUS Information:

MIDUS 2 Biomarker Project (P4) scale & variable names: **Sympathy scale [B4QSYMP]**

Additional Variables: All available items used in scale construction.

Psychometrics:

Scale	Alpha	Mean	Std. dev
J2QSYMP	.513	4.609	.705

Source(s):

Uchida, Y., & Kitayama, S. (2001). Development and validation of a sympathy scale. *Japanese Journal of Psychology*, 72 , 275-282.

ADJUSTMENT SCALE

Scales/Items:

Adjustment [J2QADJ]:

Items: 5 items- SAQ, Question 48(q-u).

The following questions are about how your views of yourself are linked to your relations with others. Please circle the number that corresponds to how much you agree or disagree with the following statements.

q. "I usually follow the opinions of people I can respect."

r. "When many people have an opinion different from mine, I can adjust mine to theirs."

s. "When values held by others sound more reasonable, I can adjust my values to theirs."

t. "Once something has happened, I try to adjust myself to it because it is difficult to change it myself."

u. "It is useless to try to change what is going to happen in life because it is impossible to predict it."

Coding: 1 Strongly disagree; 2 Disagree; 3 Slightly disagree; 4 Neutral; 5 Slightly Agree; 6 Agree; 7 Strongly Agree

Scaling: The scales were constructed by computing the mean across all items for cases having 0 or 1 missing value

MIDUS Information:

MIDUS 2 Biomarker Project (P4) scale & variable names: **Adjustment scale [B4QADJ]**

Additional Variables: All available items used in scale construction.

Psychometrics:

Scale	Alpha	Mean	Std. dev
J2QADJ	.592	4.324	.726

Source(s):

Markus, H. R., & Kitayama, S. (2004). Models of agency: Sociocultural diversity in the construction of action. In V. Murphy-Berman & J. Berman (Eds.), The 49th Annual Nebraska Symposium for Motivation: Cross-Cultural Differences in Perspectives on Self. (pp. 1-57).

PRIMARY AND SECONDARY CONTROL

NOTE: Some of the items used in these scales were included in the MIDJA Survey, while others were included in the MIDJA Biomarker Questionnaire. The relevant items are labeled accordingly.

Scales/Items:

Selective Secondary Control [J2QSSCTR]:

Items: 3 items – SAQ, Question 49 (a, b, c)

- a. “When I have decided on a goal, I always keep in mind its benefits.”
- b. “When I have decided on something, I avoid anything that could distract me.”
- c. “For goals that are difficult to achieve, I keep in mind how good I will feel when I have reached them.”

Compensatory Secondary Control – Disengagement – 4 items version [J2QCSCD4] (new at MIDJA):

Items: 4 items – SAQ, Question 49 (d, e, f, g)

- d. “When it turns out that I cannot attain a goal in any way, I let go of it.”
- e. “I stop thinking about a goal that has become unattainable and let it go.”
- f. “When something I wanted did not work out, I try not to think about it too much.”
- g. “If I cannot attain a goal in my life, I think about other new goals to pursue.”

Compensatory Secondary Control – Disengagement – 6 items version [J2QCSCD6]:

Items: 6 items – above 4 items and MIDJA Survey Questionnaire, Section G, Question 3(i, l)

- i. “I often remind myself that I can’t do everything.”
- l. “When I can’t get what I want, I assume my goals must be unrealistic.”

Compensatory Secondary Control – Self Protection – 4 items version [J2QCSCP4] (new at MIDJA):

Items: 4 items – MIDJA Survey Questionnaire, Section G, Question 3(e, h, m, n)

- e. “I find I usually learn something meaningful from a difficult situation.”
- h. “When I am faced with a bad situation, it helps to find a different way of looking at things.”
- m. “Even when everything seems to be going wrong, I can usually find a bright side to the situation.”
- n. “I can find something positive even in the worst situations.”

Compensatory Secondary Control – Self Protection – 5 items version [J2QCSCP5]:

Items: 5 items – above 4 items and Biomarker SAQ 49 (h).

h. “When I find it impossible to attain a goal, I try not to blame myself.”

Coding: 1 Not at all; 2 A little; 3 Some; 4 A lot.

Scaling: Scales are constructed by calculating the **mean** of the values of the items in each scale.

Missing Values: The scales are computed for cases that have valid values for **at least half of** the items on the particular scale.

MIDUS Information:

MIDUS 2 Project 1 scale & variable name:

Selective Secondary Control [B1SSSCTR] (new at MIDUS-II)

NOTE: The following two MIDUS scales correspond to [J2QCSCD6] and [J2QCSCP5] above, the variable names differ because the MIDJA versions combine items assessed at different points in time as noted above. Analysts should be cautious when using these items in comparative analysis.

Compensatory Secondary Control – Disengagement [B1SCSCDE] (new at MIDUS-II)

Compensatory Secondary Control – Self Protection [B1SCSCSP] (new at MIDUS-II)

Coding: MIDJA codes (above) are in the opposite direction of those used in MIDUS (below)
1 A lot; 2 Some; 3 A little; 4 Not at all.

Scaling: Items are reverse coded before scale construction so that a high score indicates high standing.

Missing Values are treated the same in MIDJA and MIDUS

Additional Variables: All available items used in scale construction.

Psychometrics:

Scale	Alpha	Mean	Std. dev
J2QSSCTR	.728	2.606	.718
J2QCSCD4	.673	2.403	.619

J2QCSCD6	.637	2.374	.522
J2QCSCP4	.794	2.680	.649
J2QCSCP5	.737	2.611	.582

Source(s):

- Wrosch, C., Heckhausen, J., & Lachman, M. E. (2000). Primary and secondary control strategies for managing health and financial stress across adulthood. *Psychology and Aging, 15*, 3, 1-13.
- Heckhausen, J., & Schulz, R. (1993). Optimization by selection and compensation: Balancing primary and secondary control in life-span development. *International Journal of Behavioral Development, 16*, 287-303.
- Heckhausen, J., & Schulz, R. (1995). A life-span theory of control. *Psychological Review, 102*, 284-304.
- Heckhausen, J., Schulz, R., & Wrosch, C. (1998). Developmental regulation in adulthood: Optimization in primary and secondary control a multiscale questionnaire. *Technical Report*, Max Planck Institute for Human Development and Education, Berlin.

SUBJECTIVE WELL-BEING: JAPANESE COMPARISON SCALE

Based on the MIDJA pilot and the Everyday Well-Being Study. The items are expected to be important components of a “good” life in Japan

Scales/Items:

Subjective Well-Being: Japanese comparison Scale [J2QSW_JP]:

Items: 8 items- SAQ, Question 50 (a-h).

How important do you think the following things are for having a good life? Please circle the appropriate number for each item. It is important to...

- a. Be critical and reflect upon your actions.
- b. Be needed by others.
- c. Be in harmony with others and surrounding events.
- d. Have the ability to make a good effort at something and stick to it.
- e. Have a sense of peace and satisfaction.
- f. To receive sympathy from others.
- g. To receive respect from others.
- h. To give something back to society.

Coding: 1 Not at all important; 2 Somewhat important; 3 Very important; 4 Extremely important.

Scaling: The scale was constructed by computing the mean across all items for cases having 0, or only 1 missing value.

MIDUS Information:

MIDUS 2 Biomarker Project (P4) scale & variable names:

Subjective Well-Being: Japanese comparison Scale [B4QSW_JP]:

Additional Variables: All available items used in scale construction.

Psychometrics:

Scale	Alpha	Mean	Std. dev
J2QSW_JP	.854	2.900	.510

Source(s):

This is a newly developed scale to assess well-being in a way that is more sensitive to the Japanese cultural context. Item selection was influenced by the following.

- Uchida, Y., Norasakkunkit, V., & Kitayama, S. (2004). Cultural constructions of happiness: theory and empirical evidence. *Journal of happiness studies* 5: 223-239.
- Kitayama, S. & Markus, H.R. (2000). The pursuit of happiness and the realization of sympathy: Cultural patterns of self, social relations, and well-being. In E. Diener & E. M. Suh (Eds.), *Cultural and subjective well-being* (pp.113-161). Cambridge, MA: MIT Press.
- Kitayama, S., Markus, H.R., & Kurokawa, M. (2000). Culture, emotion and well-being: Good feelings in Japan and the United States. *Cognition and Emotion*, 14, 93-124.
- Kitayama, S., Mesquita, B., & Karasawa, M. (2006). Cultural affordances and emotional experience: Socially engaging and disengaging emotions in Japan and the United States. *Journal of Personality and Social Psychology*, 91, 890-903.

JOB CONTENT SCALE

The scales in this section are new to MIDJA. There are no corresponding scales in MIDUS.

Scales/Items:

Skill Discretion [J2QJC_SD]:

Items: 6 items- SAQ, Question 54(1-3,5,7,9).

Please answer each question by checking off the one answer that best fits your job situation. Sometimes none of the answers fits exactly. Please choose the answer that comes closest.

1. "My job requires that I learn new things."
2. "My job requires a lot of repetitive work." (R)
3. "My job requires me to be creative."
5. "My job requires a high level of skill."
7. "I get to do a variety of different things on my job."
9. "I have an opportunity to develop my own special abilities."

Coding: 1 Strongly disagree; 2 Disagree; 3 Agree; 4 Strongly Agree.

Scaling: The scale was constructed by computing the sum of across all items and then multiplied by 2. Item marked with (R) was reversed-coded.

Missing Values: Scales scores were not constructed for cases have more than two missing values. Mean substitution was used for cases having one or two missing values.

Decision Authority [J2QJC_DA]:

Items: 3 items- SAQ, Question 54(4,6,8).

Please answer each question by checking off the one answer that best fits your job situation. Sometimes none of the answers fits exactly. Please choose the answer that comes closest.

4. "My job allows me to make a lot of decisions on my own."
6. "On my job I have very little freedom to decide how I do my work." (R)
8. "I have a lot of say about what happens on my job."

Coding: 1 Strongly disagree; 2 Disagree; 3 Agree; 4 Strongly Agree.

Scaling: The scale was constructed by computing the sum of across all items and then multiplied by 4. Item marked with (R) was reversed-coded.

Missing Values: Scales scores were not constructed for cases have more than one missing value. Mean substitution was used for cases having only one missing values.

Decision Latitude [J2JC_DL]:

Items: 9 total items, Skill Discretion (6 items- SAQ, Question 54(1-3,5,7,9)) and Decision Authority (3 items- SAQ, Question 54(4,6,8)) above.

Scaling: This scale was constructed by computing the sum of the “skill discretion” and the “decision authority” scores.

Psychological Demand [J2QJC_PD]:

Items: 5 items- SAQ, Question 54(10-14).

Please answer each question by checking off the one answer that best fits your job situation. Sometimes none of the answers fits exactly. Please choose the answer that comes closest.

- 10. “My job requires working very fast.”
- 11. “My job requires working very hard.”
- 12. “I am not asked to do an excessive amount of work.” (R)
- 13. “I have enough time to get the job done.” (R)
- 14. “I am free from conflicting demands that others make.” (R)

Coding: 1 Strongly disagree; 2 Disagree; 3 Agree; 4 Strongly Agree.

Scaling: The item 10 and 11 were summed together and multiplied by 3; the item 12, 13 and 14 were reversed code first, then summed together and multiplied by 2. The scale was constructed by computing the sum of above two scores.

Missing Values: Scales scores were not constructed for cases have more than two missing values. Mean substitution was used for cases having two or less missing values.

Supervisor Support [J2QJC_SS]:

Items: 4 items- SAQ, Question 54(15-18).

Please answer each question by checking off the one answer that best fits your job situation. Sometimes none of the answers fits exactly. Please choose the answer that comes closest.

- 15. “My supervisor is concerned about the welfare of those under him.”
- 16. “My supervisor pays attention to what I am saying.”
- 17. “My supervisor is helpful in getting the job done.”
- 18. “My supervisor is successful in getting people to work together.”

Coding: 1 Strongly disagree; 2 Disagree; 3 Agree; 4 Strongly Agree.

Scaling: The scale was constructed by computing the sum of across all items.

Missing Values: Scales scores were not constructed for cases have more than one missing value. Mean substitution was used for cases having only one missing values.

Coworker Support [J2QJC_CS]:

Items: 4 items- SAQ, Question 54(19-22).

Please answer each question by checking off the one answer that best fits your job situation. Sometimes none of the answers fits exactly. Please choose the answer that comes closest.

19. "People I work with are competent in their jobs."

20. "People I work with take a personal interest in me."

21. "People I work with are friendly."

22. "People I work with are helpful in getting the job done."

Coding: 1 Strongly disagree; 2 Disagree; 3 Agree; 4 Strongly Agree.

Scaling: The scale was constructed by computing the sum of across all items.

Missing Values: Scales scores were not constructed for cases have more than one missing value. Mean substitution was used for cases having only one missing values.

Psychometrics:

Scale	Alpha	Mean	Std. dev
J2QJC_SD	.739	30.458	7.610
J2QJC_DA	.638	34.912	8.372
J2QJC_DL	.768	65.357	14.055
J2QJC_PD	.487	30.991	5.938
J2QJC_SS	.954	9.798	3.388
J2QJC_CS	.920	10.635	2.972

Source(s):

Kawakami, N., Kobayashi, F., Araki, S., Haratani, T., and Furui, H. (1995). Assessment of job stress dimensions based on the Job Demands-Control model of employees of telecommunication and electric power companies in Japan: Reliability and Validity of the Japanese version of the Job Content Questionnaire. *International Journal of Behavioral Medicine*, 2, 358-375.

BODY INDICES

Waist to Hip Ratio [J2CWHR]:

Items: Body measurement from clinic visit – Waist, Hip (Maximum extension)

Coding: Measurement obtained by clinical staff using a Gulik Tape Measure (see PhysExam instructions V7 02-21-05 on LINUS for details).

Scaling: [J2CWHR] is computed by dividing waist measurement (in centimeters) by the maximum hip extension measurement (in centimeters).

Body Mass Index [J2CBMI]:

Items: Body measurement from clinic visit – Height, Weight

Coding: Measurement obtained by clinical staff.

Scaling: [J2CBMI] is computed by dividing weight (in kilograms) by height squared (in meters. Height measure (in centimeters) was multiplied by 100 to get the height in meters.

Alternate Average Systolic [J2CBPS23] and Diastolic [J2CBPD23] Blood Pressure:

Items: Body measurement from clinic visit – Blood Pressure, 2nd and 3rd measurements

Coding: Measurement obtained by clinical staff.

Scaling:

[J2CBPS23] is computed by taking the mean of the second and third systolic blood pressure measurements.

[J2CBPD23] is computed by taking the mean of the second and third diastolic blood pressure measurements.

Scaling is based on the protocol used in the MacArthur Study of Successful Aging.

MIDUS Information:

MIDUS 2 Biomarker Project (P4) scale & variable names:

Waist to Hip Ratio [B4PWHR]

Body Mass Index [B4PBMI]

Alternate Average Systolic Blood Pressure [B4P1GS23]

Alternate Average Diastolic Blood Pressure [B4P1GD23]

Source(s):

Gruenewald, T.L., Seeman, T.E., Ryff, C. D., Karlamangla, A.S., and Singer, B.S. 2006.
“Combinations of biomarkers predictive of later life mortality.” *Proceedings of the National Academy of Sciences*, 103(38), p.14158-14163.

MEDICATION USE

Taking Any Prescription Medications (Current) [J2MPMD]:

Items: A dummy variable based on [J2MPM]

= 1 if [J2MPM] is greater than or equal to 1

= 2 if [J2MPM] is 0

Taking Any Quasi (non-prescription) Medications (Current) [J2MOMD]:

Items: A dummy variable based on [J2MQM]

= 1 if [J2MQM] is greater than or equal to 1

= 2 if [J2MQM] is 0

= 8 if [J2MQM] is 98

Note: For the MIDJA 1 Biomarker original release, Yes/No and Count variables were created for the following types of medications:

- Blood Pressure
- Cholesterol
- Corticosteroid
- Sex Hormones
- Depression

These variables were removed in the updated release as more comprehensive data about pharmacologic and therapeutic effects are available via the linkage to the Lexi-Data database®. See the Documentation for Medication Data and the MIDUS-MIDJA Medication Documentation for more details.