

1995

SCORING INSTRUCTIONS FOR THE NORBECK SOCIAL SUPPORT QUESTIONNAIRE (NSSQ)

Instrument: developed 1980; revised 1982, 1995
Scoring Instructions: developed 1982; revised 1984, 1994, 1995 (reprinted 2001)

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BACKGROUND INFORMATION ON THE DEVELOPMENT OF THE NSSQ

The NSSQ was developed in 1980 to measure multiple components of social support in a format that allows respondents to list and rate their own social support network members on functional properties of social support (e.g., emotional and tangible support) and according to some network properties (e.g., stability of relationships, frequency of contact). In addition, questions about recent losses of supportive relationships provide descriptive data.

The conceptual basis for the NSSQ, a description of the instrument, and the results of the first phase of testing the reliability and validity of the instrument were presented in *Nursing Research* (Norbeck, Lindsey, & Carrieri, 1981). Minor modifications were made in the instrument in 1982, and a second phase of testing further examined validity and provided normative data from employed adults (Norbeck, Lindsey, & Carrieri, 1983).

The 1995 Format Revision

In 1995 the NSSQ was revised to make the format of the instrument, scoring sheet, and scoring instructions compatible with the Window's version of SPSS for data entry and analysis. The substantive content of the instrument was not changed.

There are three differences between the 1980/82 and 1995 versions of the NSSQ. First, the 5-point rating scale for Questions 1-6 was changed from a 1-5 scale to a 0-4 scale in the 1995 version of the instrument itself to eliminate the need for the scoring adjustment that had been introduced in 1984. Second, the printed format of the instrument and scoring sheet was changed to use variable names rather than column numbers for data entry. Third, two of the original subscales, Affect and Affirmation, were combined into a single subscale, Emotional Support, in the Scoring Instructions. Empirical work with the instrument had shown that Affect and Affirmation were too highly intercorrelated to warrant keeping them as separate variables, and the results of factor analysis (see Appendix A) confirmed a two factor solution of Emotional Support and Tangible Support

(Aid). These 1995 scoring instructions should be used with the 1995 version of the NSSQ. For data collected with the 1980/82 version of the NSSQ, the additional instructions in Appendix B must be carried out prior to applying the scoring instructions presented here.

Permission to use the NSSQ. Permission is hereby granted to researchers and clinicians to copy and use the 1995 version of the NSSQ provided that the 1995 scoring instructions are used.

SCORING THE NSSQ

The NSSQ can be scored directly from the questionnaire or the responses may be transferred to a one-page scoring sheet (see Figure 1). The advantages of using the scoring sheet are that the data are fully represented on a single page and additional variables related to source of support can be calculated.

SPSS program statements were developed for the NSSQ to calculate variables, subscales, and source-specific scores. In addition, these statements check for the types of errors in the data that result in scores outside the possible range for calculated scores. The SPSS program statements for the NSSQ are provided in Appendix C.

Direct Scoring Method

Table 1 presents a Computer Code Book for the data obtained from the NSSQ. The items are listed in the order that they appear on the questionnaire.

"Number Listed in Network" [NOLISTED] is the number of entries made on the network list. Scores for this item range from 1-24, however, a few subjects list more than 24 persons. In this case, the actual number listed is entered, and the ratings for these additional persons are calculated into the scores for Questions 1-8.

For Questions 1-8, the scores are obtained, first, by adding the ratings for each question on pages 2-5 and entering the sums in the columns indicated [EMO1, EMO2, etc. to FREQCON].

"Source Category" [SOU1 to SOU24] is obtained by entering the appropriate category code for each of the first 24 network members listed. In the Relationship column of the personal network list on the NSSQ, subjects have indicated the type of relationship. These entries are coded as follows:

- 0 = none (or a study-specific category)
- 1 = spouse or partner
- 2 = family or relatives
- 3 = friends
- 4 = work or school associates
- 5 = neighbors
- 6 = health care providers
- 7 = counselor or therapist
- 8 = minister, priest or rabbi
- 9 = other (e.g., God, pets)

The first of the recent loss items on page 6 is coded 0 = no, 1 = yes [LOSS]. The total number of persons indicated in Question 9a is entered for "Number Lost" [LOSSNO]. The number indicated for each category is also entered [LOSS1 to LOSS9]. The number checked by the subject for Question 9b is entered for "Amount of Support Lost" [LOSSAMT].

For subjects who answer Question 9 with a "no" response, special scoring for Questions 9a and 9b must be done to avoid subsequent problems with missing data on the Total Loss variable. Since these subjects do not answer Questions 9a and 9b, answers indicating no losses are supplied. For each category of 9a, a "0" response is entered [LOSS1 to LOSS9], and for "Number Lost [LOSSNO], a "0" is entered. For Question 9b, a "0" is entered for "amount of Support Lost" [LOSSAMT].

Scoring Sheet Method

Prior to transferring the subject's responses to the scoring sheet, the Source Categories are coded (0-9) as indicated above. These code numbers are entered in the first column of the scoring sheet entitled "Relationship."

"Subject Number" [IDNO] and "Number in Network" [NOLISTED] are obtained from the Personal Network page of the NSSQ. The subject's ratings for Questions 1-8 are transferred to the scoring sheet. For those subjects who listed more than 24 network members, an additional scoring sheet is used, and the totals of both sheets are calculated. The columns for Questions 1-8 are added on the scoring sheet and the sums entered in the "Question Totals" row.

The coding and entering of data from the recent loss items follows the same procedure described in the direct scoring section. These scores are entered along the bottom of the scoring sheet [LOSS to LOSSAMT].

The right side of the scoring sheet comprises the additional scoring that is not easily calculated in the direct scoring method. Table 2 presents a Computer Code Book for these data. "Person Totals" are the sums across the

rows for Questions 1-6 for each person listed in the network [PER1 to PER24]. Frequency of contact with individual network members, "Individual Contact," is taken directly from the ratings for Question 8 [CON1 to CON24]. By using the information about source of support [SOU1 to SOU24], the computer can be directed to calculate Person Totals and Individual Contact for each Source Category (e.g., the amount of functional support from friends vs. relatives, the frequency of contact from various Source Categories). For repeated measures designs, these data would be useful to compare sources of support over time in terms of type and amount of support available.

SUBSCALES AND VARIABLES

The scores entered for the variables listed in Table 1 are combined to form subscales and variables. Using the Variable Names from Table 1, the combinations, calculated by the computer, are described below.

Calculating Subscales

The original constructs of affect, affirmation, and aid are each measured through the ratings made in response to two questions. As noted in the section on the 1995 revision, only two constructs emerged from factor analysis. Therefore, the items are combined into scores for the subscales (Emotional and Tangible Support) as follows:

$$\text{EMO1} + \text{EMO2} + \text{EMO3} + \text{EMO4} = \text{EMOSUP}$$

$$\text{AID5} + \text{AID6} = \text{AID}$$

Calculating Variables

Each of the three main variables is composed of 2-3 subscales. The code name for Total Functional is TLFUNCT; for Total Network Properties, TLNETWRK; and for Total Loss, TLLOSS.

Variable	Subscales
TLFUNCT =	EMOSUP + AID
TLNETWRK =	NOLISTED + DURATION + FREQCON
TLLOSS =	LOSS + LOSSNO + LOSSAMT

Missing Data

Occasionally a subject will not rate an individual network member on a question. This omission does not seriously affect the subscale or variable in which the item is imbedded. However, if the subject does not give ratings for an entire question, the subscale and/or variable calculated from that question is not valid. In this case, only complete subscales or variables for that subject can be used, and the unanswered question and its corresponding subscale and/or variable cannot be used. For example, if a subject did not answer Question 5, the Aid subscale would be incomplete, and the variable, Total Functional, cannot be calculated. The other subscale

(Emotional Support) and the other two variables (Total Network Properties and Total Loss) can still be used for this subject.

SOURCE-SPECIFIC DATA

Additional information available from the NSSQ can be analyzed to determine (a) the composition of the network according to Source Category [SOU1 to SOU24], (b) the categories of persons recently lost by the subject [LOSS1 to LOSS9], (c) the amount of functional support provided by each network member [PER1 to PER24], and (d) the frequency of contact with each network member [CON1 to CON24]. The latter two types of information can be calculated for the 9 Source Categories to determine the amount of functional support provided by each category and the frequency of contact with each category.

In some cases, the amount of variance explained by source-specific categories is much greater than global scores. In a study of critical care nurses, for unmarried nurses a specific source of support (from relatives) explained 10% of the variance in perceived job stress and 16% of the variance in psychological symptoms--double or triple the effect of the total functional support score from the full network for the full sample (Norbeck, 1985). Findings from a study of low-income pregnant women showed that specific sources of support (the women's mother or male partner) were predictive of pregnancy outcomes for African-American women; whereas, the total scores were not (Norbeck & Anderson, 1989).

SITUATION-SPECIFIC SUPPORT QUESTIONS

A final area of exploration in the use of the NSSQ has been the incorporation of situation-specific questions for particular populations. In a study of work stress in critical care nursing (Norbeck, 1985), two questions were included on a half-page inserted after the Aid questions: How much can you talk about your work with this person? and How much does this person help you relax or re-energize after work? Findings from this study showed that situation-specific support (work support) explained 24% of the variance of perceived job stress for the married nurses--nearly double that of the total functional support score for this group.

Both the situation-specific and source-specific findings are exploratory and need replication with other populations. The specific types or sources of support that are most effective undoubtedly will vary by sociodemographic characteristics of the population and type of situation the population group is confronting. If similar results are obtained with different populations, they will provide a basis for greater specificity in assessing social support and in designing interventions to augment low social support.

COMMENT ON THE USE OF AVERAGE SCORES

Some investigators have raised questions about the

impact of the format of the NSSQ which does not allow separation of quantity of support from quality of support. In this format, the more network members a person has, the higher their support scores will be, regardless of the ratings of the amount of support given for the individual network members.

This concern, while valid from a theoretical perspective, has not been born out by empirical experience; furthermore, a demonstration of calculating average scores shows that such scores create a bias against individuals who report larger networks. First, empirical experience has shown that participants seldom name individuals in their social support network who provide low levels of support across the various types of support. Thus, the more network members, the greater amount of support -- both in terms of numbers of supporters and quality of support.

Second, the fallacy of averaging (in an attempt to separate quantity from quality) is that such scores result in an artifact which biases against respondents who report large numbers of supporters. To illustrate, take two respondents, A and B. Respondent A lists 4 network members and gives each of these network members high scores for quality of support. Respondent B lists 14 network members and gives high scores for the first 8 network members, and lower scores for the other network members as shown:

A's scores: 5 5 5 5

B's scores: 5 5 5 5 5 5 5 5 4 4 3 3 2 2

The average score for Respondent A is 5, and the average score for Respondent B is 4.14 -- yet Respondent B had twice the number of network members rated as providing the highest quality of support (5) and other members who provided at least some support.

Although the SPSS program statements compute average scores for use in methodological analyses, it is theoretically and methodologically unwise to use them as substantive variables.

REFERENCES

- Norbeck, J. S. (1985). Types and sources of social support for managing job stress in critical care nursing. *Nursing Research*, *34*, 225-230.
- Norbeck, J. S., & Anderson, N. J. (1989). Psychosocial predictors of pregnancy complications in low income black, hispanic, and white women. *Nursing Research*, *38*, 204-209.
- Norbeck, J. S., Lindsey, A. M., & Carrieri, V. L. (1981). The development of an instrument to measure social support. *Nursing Research*, *30*, 264-269.
- Norbeck, J. S., Lindsey, A. M., & Carrieri, V. L. (1983). Further development of the Norbeck Social Support Questionnaire: Normative data and validity testing. *Nursing Research*, *32*, 4-9.

Table 1

Computer Code Book for the NSSQ

<u>Variable Name</u>	<u>Field Width</u>	<u>Variable Label</u>	<u>Value Label</u>
IDNO	4	Subject Number	--
NOLISTED	2	Number Listed in Network	--
EMO1	3	Emotional Support (Quest. 1)	--
EMO2	3	Emotional Support (Quest. 2)	--
EMO3	3	Emotional Support (Quest. 3)	--
EMO4	3	Emotional Support (Quest. 4)	--
AID5	3	Tangible Support (Quest. 5)	--
AID6	3	Tangible Support (Quest. 6)	--
DURATION	3	Duration of Relationships (Quest. 7)	--
FREQCON	3	Frequency of Contact (Quest. 8)	--
SOU1	1	Source Category Person 1	
SOU2	1	Source Category Person 2	
SOU3	1	Source Category Person 3	
SOU4	1	Source Category Person 4	
SOU5	1	Source Category Person 5	
SOU6	1	Source Category Person 6	SOU1 to SOU24:
SOU7	1	Source Category Person 7	
SOU8	1	Source Category Person 8	0 = none
SOU9	1	Source Category Person 9	1 = spouse or partner
SOU10	1	Source Category Person 10	2 = family or relatives
SOU11	1	Source Category Person 11	3 = friends
SOU12	1	Source Category Person 12	4 = work or school associates
SOU13	1	Source Category Person 13	5 = neighbors
SOU14	1	Source Category Person 14	6 = health care providers
SOU15	1	Source Category Person 15	7 = counselor or therapist
SOU16	1	Source Category Person 16	8 = minister/priest/rabbi
SOU17	1	Source Category Person 17	9 = other (e.g., God, pets)
SOU18	1	Source Category Person 18	
SOU19	1	Source Category Person 19	
SOU20	1	Source Category Person 20	
SOU21	1	Source Category Person 21	
SOU22	1	Source Category Person 22	
SOU23	1	Source Category Person 23	
SOU24	1	Source Category Person 24	
LOSS	1	Recent Loss Question 9	0 = no, 1 = yes
LOSS1	2	Loss Spouse or Partner	--
LOSS2	2	Loss Family or Relatives	--
LOSS3	2	Loss Friends	--
LOSS4	2	Loss Work or School Associates	--
LOSS5	2	Loss Neighbors	--
LOSS6	2	Loss Health Care Providers	--
LOSS7	2	Loss Counselor or Therapist	--
LOSS8	2	Loss Minister/Priest/Rabbi	--
LOSS9	2	Loss Other	--
LOSSNO	3	Number Lost	--
LOSSAMT	1	Amount of Support Lost	0 = none 1 = a little 2 = moderate 3 = quite a bit 4 = a great deal

Table 2

Computer Code Book for Source-Specific Variables of the NSSQ

<u>Variable Name</u>	<u>Field Width</u>	<u>Variable Label</u>	<u>Value Label</u>
PER1	2	Person 1 Total Functional	--
PER2	2	Person 2 Total Functional	--
PER3	2	Person 3 Total Functional	--
PER4	2	Person 4 Total Functional	--
PER5	2	Person 5 Total Functional	--
PER6	2	Person 6 Total Functional	--
PER7	2	Person 7 Total Functional	--
PER8	2	Person 8 Total Functional	--
PER9	2	Person 9 Total Functional	--
PER10	2	Person 10 Total Functional	--
PER11	2	Person 11 Total Functional	--
PER12	2	Person 12 Total Functional	--
PER13	2	Person 13 Total Functional	--
PER14	2	Person 14 Total Functional	--
PER15	2	Person 15 Total Functional	--
PER16	2	Person 16 Total Functional	--
PER17	2	Person 17 Total Functional	--
PER18	2	Person 18 Total Functional	--
PER19	2	Person 19 Total Functional	--
PER20	2	Person 20 Total Functional	--
PER21	2	Person 21 Total Functional	--
PER22	2	Person 22 Total Functional	--
PER23	2	Person 23 Total Functional	--
PER24	2	Person 24 Total Functional	--
CON1	1	Individual Contact Person 1	
CON2	1	Individual Contact Person 2	
CON3	1	Individual Contact Person 3	
CON4	1	Individual Contact Person 4	
CON5	1	Individual Contact Person 5	
CON6	1	Individual Contact Person 6	
CON7	1	Individual Contact Person 7	
CON8	1	Individual Contact Person 8	CON1 to CON24:
CON9	1	Individual Contact Person 9	
CON10	1	Individual Contact Person 10	5 = daily
CON11	1	Individual Contact Person 11	4 = weekly
CON12	1	Individual Contact Person 12	3 = monthly
CON13	1	Individual Contact Person 13	2 = a few times a year
CON14	1	Individual Contact Person 14	1 = once a year or less
CON15	1	Individual Contact Person 15	
CON16	1	Individual Contact Person 16	
CON17	1	Individual Contact Person 17	
CON18	1	Individual Contact Person 18	
CON19	1	Individual Contact Person 19	
CON20	1	Individual Contact Person 20	
CON21	1	Individual Contact Person 21	
CON22	1	Individual Contact Person 22	
CON23	1	Individual Contact Person 23	
CON24	1	Individual Contact Person 24	

Figure 1

Subject No. _____ [IDNO]
 No. in Network _____ [NOLISTED]

SOCIAL SUPPORT QUESTIONNAIRE
 Supplemental Scoring Sheet
1995 Version

Demographic Data: Age ____ Sex ____ Ethnicity ____
 Education (yrs) _____ Marital Status _____
 Type of Group _____ (e.g. dialysis patients)

	Relationship	Question 1	Question 2	Question 3	Question 4	Question 5	Question 6	Person Totals (Ques. 1-6)	Question 7	Questions 8
1	[SOU1]							[PER1]		[CON1]
2	[SOU2]							[PER2]		[CON2]
3	[SOU3]							[PER3]		[CON3]
4	[SOU4]							[PER4]		[CON4]
5	[SOU5]							[PER5]		[CON5]
6	[SOU6]							[PER6]		[CON6]
7	[SOU7]							[PER7]		[CON7]
8	[SOU8]							[PER8]		[CON8]
9	[SOU9]							[PER9]		[CON9]
10	[SOU10]							[PER10]		[CON10]
11	[SOU11]							[PER11]		[CON11]
12	[SOU12]							[PER12]		[CON12]
13	[SOU13]							[PER13]		[CON13]
14	[SOU14]							[PER14]		[CON14]
15	[SOU15]							[PER15]		[CON15]
16	[SOU16]							[PER16]		[CON16]
17	[SOU17]							[PER17]		[CON17]
18	[SOU18]							[PER18]		[CON18]
19	[SOU19]							[PER19]		[CON19]
20	[SOU20]							[PER20]		[CON20]
21	[SOU21]							[PER21]		[CON21]
22	[SOU22]							[PER22]		[CON22]
23	[SOU23]							[PER23]		[CON23]
24	[SOU24]							[PER24]		[CON24]
Question Totals										
		[EMO1]	[EMO2]	[EMO3]	[EMO4]	[AID5]	[AID6]		[DURATION]	[FREQCON]

[LOSS] QUESTION 9 _____ 0 = No, 1 = Yes
 [LOSSNO] QUESTION 9a _____ Category codes: [LOSS1] _____ [LOSS2] _____ [LOSS3] _____ [LOSS4] _____ [LOSS5] _____ [LOSS6] _____ [LOSS7] _____ [LOSS8] _____
 [LOSS9] _____
 [LOSSAMT] QUESTION 9b _____

Appendix A

Additional Analyses with the NSSQ

1. Corrected Normative Scores for Previously Published Data

The previously published normative data for 136 employed adults (Norbeck, Lindsey, & Carrieri, 1983) were based on the uncorrected scale values for Questions 1-6. The Scoring Adjustment (see page 1 of this document) applied to the data published in Table 2 in the 1983 article resulted in the following corrected (lower) mean values:

Table A-1. Corrected Scores for Normative Data Published in 1983

<u>NSSQ Scales:</u>	<u>Mean</u>	<u>S.D.</u>
Affect	73.49	36.25
Affirmation	66.06	32.33
<i>(Emotional Support</i>	<i>139.55)</i>	
Aid	62.35	32.24
Total Functional	201.90	95.87

As described in the scoring instructions, the 1984 Scoring Adjustment applied only to questions 1-6 (Affect, Affirmation, and Aid); thus, the mean values for the other NSSQ subscales and variables on Table 2 in the 1983 article were not changed. Scores obtained from the 1995 version of the NSSQ do not need this correction because the 5-point rating scale for Questions 1-6 was changed to a 0-4 scale on the instrument.

2. Factor Structure of the NSSQ

Dr. Suzanne Dibble and Dr. Steven Paul collaborated in examining the factor structure of the NSSQ. Data shared by investigators who used the NSSQ were pooled resulting in a total sample of 1,392 participants with complete data. A principal axes factor analysis with varimax rotation was conducted. This factor analytic procedure identified two distinct dimensions of social support: emotional support and tangible support. This two factor model accounts for 74% of the total variance. The loadings of the 6 items on the two rotated factors are reported in Table A-2. Factor loadings exceeding 0.40 are highlighted.

Table A-2. Factor Pattern Following Principal Axes Factoring with Varimax Rotation

Average Scores	<u>Factor 1</u> <u>Emotional Support</u>	<u>Factor 2</u> <u>Tangible Support</u>
Question 2	.83	.16
Question 1	.78	.20
Question 4	.68	.31
Question 3	.64	.35
Question 5	.21	.79
Question 6	.24	.70

Appendix A (cont.)

3. Normative Values for the NSSQ (Healthy Adults)

Dr. Suzanne Dibble examined the Normative Values of the NSSQ. Data from healthy participants shared by investigators who used the NSSQ were pooled resulting in a total sample of 1,415 participants. Data were not available for the number of persons lost (Number Lost) in the previous year for most of these participants; therefore, the Total Loss Score could not be calculated.

Table A-3. Normative Sample Demographics

<u>Demographic Variables:</u>	Females (n=1,067)		Males (n=348)	
	<u>Mean</u>	<u>S.D.</u>	<u>Mean</u>	<u>S.D.</u>
Age	45.5	21.0	48.3	17.3
Education Level	14.0	3.2	14.9	3.9
Percent Caucasian	78.6%	88.8%	
Percent Married/Partnered	40.5%	53.2%	

Table A-4. Normative Values for the NSSQ (Healthy Adults)

<u>NSSQ Variables:</u>	Females (n=1,067)		Males (n=348)	
	<u>Mean</u>	<u>S.D.</u>	<u>Mean</u>	<u>S.D.</u>
Number Listed	10.9 . . .	5.9	10.6 . . .	6.0
Emotional Support	127.2 . .	72.7	119.3 . .	75.2
Tangible Support	53.1 . .	33.4	55.3 . .	36.0
Total Functional Support	179.4 . .	102.1	173.6 . .	108.3
Total Network Score	98.5 . .	53.8	95.0 . .	55.3
Amount of Loss	2.4 . . .	1.3	2.2 . . .	1.1
Percent Experienced Loss	44.1% . . .		36.3%	

Appendix B

Scoring Adjustment for the 1980/82 Version of the NSSQ

Background *These SPSS program statements can be downloaded: NSSQafix.sps*

Following publication of the instrument and scoring instructions in 1980/82, a Scoring Adjustment was made in 1984 for scoring Questions 1-6. For these questions, the 5-point rating scale was converted in the computer to values of 0-4 scale, rather than the values of 1-5 printed on the instrument. This conversion was necessary because the rating of "1" equals "not at all" (no support) from a network member. However, the "1s" would continue to be added to the score, thereby artificially inflating the total amount of support. Revised means and standard deviations for the normative data published in 1983 are shown in Appendix A. The 1995 revised version of the NSSQ eliminated the need for the Scoring Adjustment by changing the rating scale from 1-5 to 0-4 directly on the instrument.

The scoring conversion provided below corrects the scores for Questions 1-6 and includes a parallel scoring conversion required for the source-specific scores derived from the functional support items. Scoring adjustment was not necessary for questions 7 and 8 because the rating of "1" has a non-zero value for those questions.

Using the 1995 Windows SPSS scoring statements with earlier versions of the NSSQ

For data collected with the 1980/82 version of the NSSQ, the following SPSS program statements must be applied to the data before using the 1995 scoring instructions provided in Appendix C. Prior to executing the scoring conversion, the variable names for the Emotional Support items are changed to correspond to the revised format of the 1995 instrument.

COMMENT

Syntax Filename = NSSQFIXA.SPS

The following SPSS 6.1 for Windows syntax statements carry out the variable renaming and scoring adjustments necessary to make the data file compatible with the 1995 revised instrument and SPSS scoring statements in Appendix C.

TITLE 'SCORING ADJUSTMENT FOR THE 1980/82 VERSION OF THE NSSQ'.
SUBTITLE 'INCLUDING VARIABLE RENAMING STATEMENTS'.

COMMENT

Provide the complete path to the SPSS for Windows data file that contains the variables of the 1980/82 version of the NSSQ in the GET FILE command. If the data file has already been opened in SPSS, it is not necessary to GET the file again.

GET FILE = c:\subdirectory\filename.sav'.

COMMENT

The following commands rename variables to correspond with the 1995 version of the Scoring Instructions.

RENAME VARIABLES (AFFECT1 AFFECT2 AFFIRM3 AFFIRM4 = EMO1 EMO2 EMO3 EMO4)
(SOURCE1 TO SOURCE24 = SOU1 TO SOU24)
(PERSON1 TO PERSON24 = PER1 TO PER24)
(CONTAC1 TO CONTAC24 = CON1 TO CON24).

Appendix B (cont.)

COMMENT

The following commands create the scoring adjustment for EMO1 to AID6 by subtracting the number of sources listed in the network. These adjustments are necessary if the 1980/82 version of the NSSQ was used.

```

COMPUTE EMO1=EMO1-NOLISTED      /* CORRECTED EMO1 SCORE */.
COMPUTE EMO2=EMO2-NOLISTED      /* CORRECTED EMO2 SCORE */.
COMPUTE EMO3=EMO3-NOLISTED      /* CORRECTED EMO3 SCORE */.
COMPUTE EMO4=EMO4-NOLISTED      /* CORRECTED EMO4 SCORE */.
COMPUTE AID5=AID5-NOLISTED       /* CORRECTED AID5 SCORE */.
COMPUTE AID6=AID6-NOLISTED       /* CORRECTED AID6 SCORE */.

```

COMMENT

The following commands create the scoring adjustment for PER1 to PER24 by subtracting 6 from each score.

```

DO REPEAT XPER=PER1 TO PER24.
COMPUTE XPER=XPER-6              /* CORRECTED PERSON SCORES */.
END REPEAT.
EXECUTE.

```

COMMENT

Provide a NEW filename for the SPSS data file that will contain the renamed and adjusted variables with the SAVE OUTFILE command.

```

SAVE OUTFILE = 'c:\subdirectory\newname.sav'/COMPRESSED.

```

Appendix C

SPSS Command Statements to Create Subscales, Variables, and Source-Specific Variables

The computer statements that follow were based on program statements initially developed for the mainframe SPSS by Dr. Don Chambers and revised in 1995 for the Windows version of SPSS by Dr. Steven Paul. The purpose of each of the functions in these sets of command statements is briefly explained in the "Comment" preceding it.

Note: If these revised 1995 program statements are to be used with the 1980/82 version of the NSSQ, the commands in Appendix B must be executed first.

These SPSS program statements can be downloaded: NSSQ95a.sps

1. Establishing Variables from Raw Data

COMMENT

Syntax Filename = NSSQ95A.SPS
The following SPSS 6.1 for Windows syntax statements assigns variable and value labels, computes various subscale and total scores, checks for out-of-range values, provides basic descriptive statistics, and lists subjects with discrepant data.

TITLE "SCORING PROGRAM FOR 'NORBECK SOCIAL SUPPORT QUESTIONNAIRE'".
SUBTITLE 'INCLUDING CHECK FOR DISCREPANT DATA'.

COMMENT

Provide the complete path to the SPSS for Windows data file that contains the variables of the 1995 version of the NSSQ in the GET FILE command. If the data file has already been opened in SPSS, it is not necessary to GET the file again.

GET FILE = 'c:\subdirectory\filename.sav'.

VARIABLE LABELS

IDNO 'SUBJECT NUMBER'
NOLISTED 'NUMBER LISTED IN NETWORK'
EMO1 'EMOTIONAL SUPPORT (QUEST. 1)'
EMO2 'EMOTIONAL SUPPORT (QUEST. 2)'
EMO3 'EMOTIONAL SUPPORT (QUEST. 3)'
EMO4 'EMOTIONAL SUPPORT (QUEST. 4)'
AID5 'TANGIBLE SUPPORT (QUEST. 5)'
AID6 'TANGIBLE SUPPORT (QUEST. 6)'
DURATION 'DURATION OF RELATIONSHIP (QUEST. 7)'
FREQCON 'FREQUENCY OF CONTACT (QUEST. 8)'
LOSS 'RECENT LOSS (QUEST. 9)'
LOSS1 'NUMBER OF SPOUSES OR PARTNERS LOST'
LOSS2 'NUMBER OF FAMILY OR RELATIVES LOST'
LOSS3 'NUMBER OF FRIENDS LOST'
LOSS4 'NUMBER OF WORK OR SCHOOL ASSOCIATES LOST'
LOSS5 'NUMBER OF NEIGHBORS LOST'
LOSS6 'NUMBER OF HEALTH CARE PROVIDERS LOST'
LOSS7 'NUMBER OF COUNSELORS OR THERAPISTS LOST'
LOSS8 'NUMBER OF MINISTERS/PRIESTS/RABBIS LOST'
LOSS9 'NUMBER OF OTHERS LOST'
LOSSNO 'TOTAL NUMBER OF PERSONS LOST'
LOSSAMT 'AMOUNT OF SUPPORT LOST (QUEST. 9b)'.

Appendix C (cont.)

VALUE LABELS

SOU1 TO SOU24 0 'NONE' 1 'SPOUSE OR PARTNER' 2 'FAMILY OR RELATIVES'
 3 'FRIENDS' 4 'WORK/SCHOOL ASSOC' 5 'NEIGHBORS'
 6 'HLTH CARE PROVIDERS' 7 'COUNSELOR/THERAPIST'
 8 'MINIST/PRIEST/RABBI' 9 'OTHER/'
 LOSS 0 'NO' 1 'YES/'

LOSSAMT 0 'NONE AT ALL' 1 'A LITTLE' 2 'A MODERATE AMOUNT'

3 'QUITE A BIT' 4 'A GREAT DEAL/'

CON1 TO CON24 5 'DAILY' 4 'WEEKLY' 3 'MONTHLY' 2 'A FEW TIMES A YEAR'
 1 'ONCE A YEAR OR LESS'.

COMMENT

The following commands calculate subscale and total scores.

COMPUTE EMOSUP=EMO1+EMO2+EMO3+EMO4 /* EMOTIONAL SUPPORT SCORE */.
 COMPUTE AID=AID5+AID6 /* TANGIBLE SUPPORT SCORE */.
 COMPUTE TLFUNCT=EMOSUP+AID /* TOTAL FUNCTIONAL SUPPORT */.
 COMPUTE TLNETWRK=NOLISTED+DURATION+FREQCON /* TOTAL NETWORK SCORE
 */.
 COMPUTE TLLOSS=LOSS+LOSSNO+LOSSAMT /* TOTAL LOSS SCORE */.

COMMENT

The following two variables calculate Average Duration and Average Functional Support by dividing by the number of sources listed in the network.

COMPUTE AVEDURA=DURATION/NOLISTED /* AVERAGE DURATION SCORE */.
 COMPUTE AVEFUNCT=TLFUNCT/NOLISTED /* AVE. FUNCT. SUPPORT
 SCORE */.

COMMENT

TLFUNCT2 is a check on TLFUNCT -- ideally, the two scores should be identical because they are simply two different ways of calculating the same variable.

COMPUTE TLFUNCT2=SUM(PER1 TO PER24) /* CHECK SCORE FOR TLFUNCT */.

COMMENT

The following commands check for out-of-range values. If any subject has out-of-range values, they are coded "1" for the variable "PROBLEM".

IF (NOLISTED <0 OR NOLISTED >24) PROBLEM=1.

DO REPEAT XSCORE=EMO1 TO AID6.
 IF (XSCORE <0 OR XSCORE > NOLISTED*4) PROBLEM=2.
 END REPEAT.

IF (DURATION < NOLISTED OR DURATION > NOLISTED*5) PROBLEM=3.
 IF (FREQCON < NOLISTED OR FREQCON > NOLISTED*5) PROBLEM=4.

Appendix C (cont.)

```
DO REPEAT XSOU=SOU1 TO SOU24/
  XPER=PER1 TO PER24/
  XCON=CON1 TO CON24.
IF (XSOU <0 OR XSOU >9) PROBLEM=5.
IF (XPER <0 OR XPER >24) PROBLEM=6.
IF (XCON <1 OR XCON >5) PROBLEM=7.
END REPEAT.
```

```
VARIABLE LABELS
EMOSUP 'EMOTIONAL SUPPORT SCORE'
AID 'TANGIBLE SUPPORT SCORE'
TLFUNCT 'TOTAL FUNCTIONAL SUPPORT SCORE'
TLNETWRK 'TOTAL NETWORK SCORE'
TLLOSS 'TOTAL LOSS SCORE'
AVEDURA 'AVERAGE DURATION SCORE'
AVEFUNCT 'AVERAGE FUNCTIONAL SUPPORT SCORE'
TLFUNCT2 'CHECK SCORE FOR TLFUNCT'
PROBLEM 'CHECK VARIABLE FOR OUT-OF-RANGE VALUES'.
```

```
VALUE LABELS
PROBLEM 1 'NOLISTED OUT-OF-RANGE' 2 'EMO1 to AID6 OUT-OF-RANGE'
3 'DURATION OUT-OF RANGE' 4 'FREQCON OUT-OF-RANGE'
5 'SOU1 TO SOU24 OUT-OF-RANGE'
6 'PER1 TO PER24 OUT-OF-RANGE'
7 'CON1 TO CON24 OUT-OF-RANGE'.
```

```
COMMENT
  Provide a NEW filename for the SPSS data file that will contain the
  original and newly created variables with the SAVE OUTFILE command.
```

```
SAVE OUTFILE = 'c:\subdirectory\filesub1.sav' /COMPRESSED.
```

```
COMMENT
  The following two commands provide basic descriptive statistics.
```

```
FREQUENCIES VAR=PROBLEM NOLISTED LOSS LOSSNO LOSSAMT.
```

```
DESCRIPTIVES VAR=NOLISTED TO FREQCON LOSS1 TO LOSSAMT EMOSUP TO TLFUNCT2.
```

```
COMMENT
  The last set of commands lists subjects with discrepant data.
```

```
FILTER BY PROBLEM.
LIST VAR=IDNO NOLISTED TO FREQCON.
LIST VAR=IDNO SOU1 TO SOU24.
LIST VAR=IDNO PER1 TO PER24.
LIST VAR=IDNO CON1 TO CON24.
FILTER OFF.
```

Appendix C (cont.)

2. Calculation of Source-Specific Scores

These SPSS program statements can be downloaded: NSSQ95b.sps

The variables calculated from this set of statements allow comparison of the amount of Total Functional Support (the sum of Emotional Support and Tangible Support) that is available from friends, relatives, or other source categories. Similar comparisons can be made for Frequency of Contact with various source categories of network members. These calculations generate a large number of variables, some of which are intermediate variables that can be erased after the associated summary score is obtained.

COMMENT

Syntax Filename = NSSQ95B.SPS
The following SPSS 6.1 for Windows syntax statements creates source-specific functional support and contact scores.

TITLE 'CALCULATION OF VARIOUS TYPES OF FUNCTIONAL SUPPORT AND'.
SUBTITLE 'CONTACT SCORES BY SOURCE CATEGORY'.

COMMENT

Provide the complete path to the SPSS for Windows data file that was created by the syntax commands in NSSQ95A.SPS. If the data file has already been opened in SPSS, it is not necessary to GET the file again.

GET FILE = 'c:\subdirectory\filesub1.sav' .

COMMENT

The following commands create 9 new variables which indicate Total Functional Support broken down by each of the 9 source categories.

DO REPEAT XTOTPFOR=TOTPFOR1 TO TOTPFOR9.
COMPUTE XTOTPFOR=0.
END REPEAT.

DO REPEAT XSOU=SOU1 TO SOU24/XPER=PER1 TO PER24.
IF (XSOU EQ 1) TOTPFOR1=TOTPFOR1+XPER.
IF (XSOU EQ 2) TOTPFOR2=TOTPFOR2+XPER.
IF (XSOU EQ 3) TOTPFOR3=TOTPFOR3+XPER.
IF (XSOU EQ 4) TOTPFOR4=TOTPFOR4+XPER.
IF (XSOU EQ 5) TOTPFOR5=TOTPFOR5+XPER.
IF (XSOU EQ 6) TOTPFOR6=TOTPFOR6+XPER.
IF (XSOU EQ 7) TOTPFOR7=TOTPFOR7+XPER.
IF (XSOU EQ 8) TOTPFOR8=TOTPFOR8+XPER.
IF (XSOU EQ 9) TOTPFOR9=TOTPFOR9+XPER.
END REPEAT.

COMMENT

The following commands create 9 new variables which indicate Total Contact broken down by each of the 9 source categories.

DO REPEAT XTOTCFOR=TOTCFOR1 TO TOTCFOR9.
COMPUTE XTOTCFOR=0.
END REPEAT.

DO REPEAT XSOU=SOU1 TO SOU24/XCON=CON1 TO CON24.
IF (XSOU EQ 1) TOTCFOR1=TOTCFOR1+XCON.

Appendix C (cont.)

```

IF (XSOU EQ 2) TOTCFOR2=TOTCFOR2+XCON.
IF (XSOU EQ 3) TOTCFOR3=TOTCFOR3+XCON.
IF (XSOU EQ 4) TOTCFOR4=TOTCFOR4+XCON.
IF (XSOU EQ 5) TOTCFOR5=TOTCFOR5+XCON.
IF (XSOU EQ 6) TOTCFOR6=TOTCFOR6+XCON.
IF (XSOU EQ 7) TOTCFOR7=TOTCFOR7+XCON.
IF (XSOU EQ 8) TOTCFOR8=TOTCFOR8+XCON.
IF (XSOU EQ 9) TOTCFOR9=TOTCFOR9+XCON.
END REPEAT.

```

COMMENT

The following commands create 9 new variables which count the number of persons listed in the network for each of the 9 source categories.

```

DO REPEAT XCOUNT=COUNT1 TO COUNT9/X=1 TO 9.
COUNT XCOUNT=SOU1 TO SOU24(X).
END REPEAT.

```

COMMENT

The following commands create 9 new variables which indicate Average Functional Support for each of the 9 source categories.

```

DO REPEAT XAVEPFOR=AVEPFOR1 TO AVEPFOR9/
  XTOTPFOR=TOTPFOR1 TO TOTPFOR9/
  XCOUNT=COUNT1 TO COUNT9.
IF (XCOUNT NE 0) XAVEPFOR=XTOTPFOR/XCOUNT.
END REPEAT.

```

COMMENT

The following commands create 9 new variables which indicate Average Contact for each of the 9 source categories.

```

DO REPEAT XAVECFOR=AVECFOR1 TO AVECFOR9/
  XTOTCFOR=TOTCFOR1 TO TOTCFOR9/
  XCOUNT=COUNT1 TO COUNT9.
IF (XCOUNT NE 0) XAVECFOR=XTOTCFOR/XCOUNT.
END REPEAT.

```

COMMENT

The following commands create 9 new variables which indicate the percent of the total number of persons listed in the network broken down by each of the 9 source categories.

```

DO REPEAT XPERCNOL=PERCNOL1 TO PERCNOL9/XCOUNT=COUNT1 TO COUNT9.
COMPUTE XPERCNOL=(XCOUNT/NOLISTED)*100.
END REPEAT.

```

COMMENT

The following commands create 9 new variables which indicate the percent of the Total Functional Support in the network broken down by each of the 9 source categories.

```

DO REPEAT XPERCFUN=PERCFUN1 TO PERCFUN9/XTOTPFOR=TOTPFOR1 TO TOTPFOR9.
COMPUTE XPERCFUN=(XTOTPFOR/TLFUNCT)*100.
END REPEAT.

```

Appendix C (cont.)

VARIABLE LABELS

TOTPFOR1 'TOT FUNCT SUPP FOR SPOUSE OR PARTNER'
 TOTPFOR2 'TOT FUNCT SUPP FOR FAMILY OR RELATIVES'
 TOTPFOR3 'TOT FUNCT SUPP FOR FRIENDS'
 TOTPFOR4 'TOT FUNCT SUPP FOR WORK/SCHOOL ASSOC'
 TOTPFOR5 'TOT FUNCT SUPP FOR NEIGHBORS'
 TOTPFOR6 'TOT FUNCT SUPP FOR HLTH CARE PROV'
 TOTPFOR7 'TOT FUNCT SUPP FOR COUNSELOR OR THERAP'
 TOTPFOR8 'TOT FUNCT SUPP FOR MINIST/PRIEST/RABBI'
 TOTPFOR9 'TOT FUNCT SUPP FOR OTHER'
 TOTCFOR1 'TOT CONTACT FOR SPOUSE OR PARTNER'
 TOTCFOR2 'TOT CONTACT FOR FAMILY OR RELATIVES'
 TOTCFOR3 'TOT CONTACT FOR FRIENDS'
 TOTCFOR4 'TOT CONTACT FOR WORK/SCHOOL ASSOC'
 TOTCFOR5 'TOT CONTACT FOR NEIGHBORS'
 TOTCFOR6 'TOT CONTACT FOR HLTH CARE PROV'
 TOTCFOR7 'TOT CONTACT FOR COUNSELOR OR THERAP'
 TOTCFOR8 'TOT CONTACT FOR MINIST/PRIEST/RABBI'
 TOTCFOR9 'TOT CONTACT FOR OTHER'
 COUNT1 'NUMBER IN NETWORK -- SPOUSE OR PARTNER'
 COUNT2 'NUMBER IN NETWORK -- FAMILY OR RELATIVES'
 COUNT3 'NUMBER IN NETWORK -- FRIENDS'
 COUNT4 'NUMBER IN NETWORK -- WORK/SCHOOL ASSOC'
 COUNT5 'NUMBER IN NETWORK -- NEIGHBORS'
 COUNT6 'NUMBER IN NETWORK -- HLTH CARE PROV'
 COUNT7 'NUMBER IN NETWORK -- COUNSELOR OR THERAP'
 COUNT8 'NUMBER IN NETWORK -- MINIST/PRIEST/RABBI'
 COUNT9 'NUMBER IN NETWORK -- OTHER'
 AVEPFOR1 'AVE FUNCT SUPP FOR SPOUSE OR PARTNER'
 AVEPFOR2 'AVE FUNCT SUPP FOR FAMILY OR RELATIVES'
 AVEPFOR3 'AVE FUNCT SUPP FOR FRIENDS'
 AVEPFOR4 'AVE FUNCT SUPP FOR WORK/SCHOOL ASSOC'
 AVEPFOR5 'AVE FUNCT SUPP FOR NEIGHBORS'
 AVEPFOR6 'AVE FUNCT SUPP FOR HLTH CARE PROV'
 AVEPFOR7 'AVE FUNCT SUPP FOR COUNSELOR OR THERAP'
 AVEPFOR8 'AVE FUNCT SUPP FOR MINIST/PRIEST/RABBI'
 AVEPFOR9 'AVE FUNCT SUPP FOR OTHER'
 AVECFOR1 'AVE CONTACT FOR SPOUSE OR PARTNER'
 AVECFOR2 'AVE CONTACT FOR FAMILY OR RELATIVES'
 AVECFOR3 'AVE CONTACT FOR FRIENDS'
 AVECFOR4 'AVE CONTACT FOR WORK/SCHOOL ASSOC'
 AVECFOR5 'AVE CONTACT FOR NEIGHBORS'
 AVECFOR6 'AVE CONTACT FOR HLTH CARE PROV'
 AVECFOR7 'AVE CONTACT FOR COUNSELOR OR THERAP'
 AVECFOR8 'AVE CONTACT FOR MINIST/PRIEST/RABBI'
 AVECFOR9 'AVE CONTACT FOR OTHER'
 PERCNOL1 '% OF NOLISTED FOR SPOUSE OR PARTNER'
 PERCNOL2 '% OF NOLISTED FOR FAMILY OR RELATIVES'
 PERCNOL3 '% OF NOLISTED FOR FRIENDS'
 PERCNOL4 '% OF NOLISTED FOR WORK/SCHOOL ASSOC'
 PERCNOL5 '% OF NOLISTED FOR NEIGHBORS'
 PERCNOL6 '% OF NOLISTED FOR HLTH CARE PROV'
 PERCNOL7 '% OF NOLISTED FOR COUNSELOR OR THERAP'
 PERCNOL8 '% OF NOLISTED FOR MINIST/PRIEST/RABBI'
 PERCNOL9 '% OF NOLISTED FOR OTHER'
 PERCFUN1 '% OF TLFUNCT FOR SPOUSE OR PARTNER'

Appendix C (cont.)

PERCFUN2 '% OF TLFUNCT FOR FAMILY OR RELATIVES'
PERCFUN3 '% OF TLFUNCT FOR FRIENDS'
PERCFUN4 '% OF TLFUNCT FOR WORK/SCHOOL ASSOC'
PERCFUN5 '% OF TLFUNCT FOR NEIGHBORS'
PERCFUN6 '% OF TLFUNCT FOR HLTH CARE PROV'
PERCFUN7 '% OF TLFUNCT FOR COUNSELOR OR THERAP'
PERCFUN8 '% OF TLFUNCT FOR MINIST/PRIEST/RABBI'
PERCFUN9 '% OF TLFUNCT FOR OTHER'

COMMENT

Provide a NEW filename for the SPSS data file that will contain the original and newly created variables with the SAVE OUTFILE command.

SAVE OUTFILE = 'c:\subdirectory\filesub2.sav' /COMPRESSED.

COMMENT

The following two commands provide basic descriptive statistics.

FREQUENCIES VAR=COUNT1 TO COUNT9.

DESCRIPTIVES VAR=TOTPFOR1 TO PERCFUN9.