the EVALUATION@HSRI CENTER

Toolkit Evaluating Quality of Life for Persons With Severe Mental Illness

To Be Used in Conjunction with the Lehman Quality of Life Interview

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This Toolkit is one of a series of such kits commissioned by the Evaluation Center@HSRI. The Center is supported by a cooperative agreement with the Center for Mental Health Services, Substance Abuse and Mental Health Services Administration. The mission of the Evaluation Center is to provide technical assistance related to the evaluation of adult mental health systems change.

The Center offers seven programs all of which are designed to enhance evaluation capacity. ***The programs are:*** **the Consultation Program**, which provides consultation tailored to the needs of individual projects; **the e-Community Program**, which provide a forum for ongoing dialogue via electronic conferencing; **the Toolkits & Materials Program**, which provides evaluators with tested methodologies, instruments and original papers on selected topics and identifies relevant literature in the field; **the e-Learning Program**, which supplies online courses and in-person training; **the Multicultural Program** that provides technical assistance with respect to evaluation of mental health services and systems for racially, ethnically and culturally diverse persons; **the Conferences Program** designed to inform our audience of events in which issues related to evaluation research are discussed; and the **Evidence-based Practices Program,** which assists in identifying evidence-based practices and moving promising interventions to evidence-based service.

The Toolkits are designed to provide evaluators with complete descriptions of methodologies and instruments for use in evaluating specific topics. Based on information from a needs assessment study conducted by the Center and on feedback from evaluators in the field, we have identified a number of important topics that evaluators are frequently interested in examining. Expert consultants have been engaged to review the background of these topics and to compile Toolkits that provide evaluators with state-of-the-art evaluation techniques to use in their own work.

The Evaluation Center@HSRI has also established an online Forum for discussing issues surrounding its Toolkits as well as other issues related to mental health service evaluation. This forum will provide an electronic venue for Toolkit users to share their expertise and experiences with the Toolkits. If you would like to participate in a user group, please visit and e-forum area of our website, www.tecathsri.org.

We hope that this Toolkit on Translation and Adapting Instruments will be helpful to those evaluators who are interested in methodological approaches to cross-cultural research and evaluation.

H. Stephen Leff, Ph.D.
Director

Virginia Mulkern, Ph.D.
Associate Director

For your Convenience...

We have included the following items (with line breaks):

Table of Contents

Section II Quality Of Life Interview: Brief Version

Interviewer Manual: Brief Version

Section III: Data Analysis

Section IV: Use of the Quality of Life Interview

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Section VI

Overview

The impacts that chronic mental illnesses have on persons' lives and the resulting complexity of the needs generated by such illnesses pose a particular challenge in the delivery of health care services and in the assessment of the effectiveness of these services for these persons (*1-3*). Relevant patient outcome domains that have been identified include psychiatric symptoms, general health status, functional status, access to resources and opportunities, and sense of well-being (3). The latter three outcome domains constitute the major components of "quality of life". Additional outcomes of concern include family burden and burden to society, eg. community safety (*3*).

"Quality of life" concerns have gained considerable currency throughout the entire field of health care evaluation during the past decade. Several books have been published recently on the topic (*4, 5*), entire issues of journals have been devoted to indexing QOL measures (*6-8*), and new publications have been created to deal with the volume of research on QOL (*e.g., Quality of Life Research, Quality of Life Newsletter*). Underlying this interest in quality of life, which seemed to arise simultaneously but independently in multiple medical specialty areas, is the fundamental question about what difference medical treatments **really** make in patients' lives, reflected by the well known medical aphorism, "The surgery was a success, but the patient died." Medical outcome assessments that focus strictly upon the signs and symptoms of disease or disease processes (*e.g., tumor size or survival time in cancer, range of motion or "joint counts" in arthritis, expiratory volume in lung disease, seizure frequency in epilepsy, or hallucinations in schizophrenia*) were recognized as essential, but not sufficient monitors of patient outcome. Hence driving this movement toward quality of fife research is a humanitarian concern about the overall well-being of patients, not just the status of their disease processes. More recently, to this humanitarian focus have been added concerns about costs. For example, pharmaceutical companies now face expectations from the FDA of evidence that new drugs enhance quality of life, not just reduce symptoms or disease processes, and such evidence may be used by hospital formularies in decisions about the cost-effectiveness of new drugs. Public policy makers and consumer groups also raise the quality of fife issue in discussions about what treatments are worth purchasing (*4, 5*).

All of this has led to active development of quality of life assessment procedures over the past decade (*4, 5*). The production of new measures has been so rapid from so many different specialties that the sheer volume of these measures and the concepts underlying them has produced considerable confusion. This toolkit is designed to facilitate the use of one of these measures, the Lehman Quality of Life Interview, Full and Brief version.

The Toolkit is divided into six sections each one designed as a stand alone section. Section I contains the Quality of Life Interview, Full Version (*QOLI-Full Version*) together with the training manual for this version of the instrument. Section II has the Quality of Life Interview, Brief Version (*QOLI-Brief Version*) with a training manual. Section III contains information on data analysis including sample size, scale construction, scoring guide, code books and specification sheets, data programming instructions in SAS and SPSSX, and examples of results' tables. Section IV presents a brief discussion on the application of both quality of life instruments, and Section V has a selection of reprints. The literature cited throughout the toolkit is contained in Section VI.

Section I

Quality of Life Interview

FULL VERSION

Time Began (military time): ___ ___ : ___ ___

Section A: Demographics

First, I'm going to ask you a few background questions.

1 *Sex of Respondent (CODE BY OBSERVATION):*

Male 1

Female 2

2 *What is your date of birth?*

__ __/__ __/__ __
m m d d y y

3 *How old are you?*

Age (SPECIFY) . . . . . ___

Missing 99

4 *What is your marital status?*

Married 1

Separated 2

Divorced 3

Widowed 4

Never married 5

Co-habitating. 6

Missing 9

5a *How many children do you have?*

No. of children (SPECIFY) . . . . . ___ ___

None 00

Missing 99

5b *How many of your children are under 18 years of age?*

# of children . . . . . ___ ___

6 *What is the highest grade in school or year of college you have completed?*

Grade (IF 12 OR MORE GO TO Q. 8) . . . . . ___ ___

None 00

Missing 99

7 *Did you pass a high school equivalency test?*

No 0

Yes. 1

Missing 9

8 *Do you have a college degree?*

No (GO TO Q. 10) 0

Yes. 1

Missing 9

9 *What degree is that?*

Associate 1

Bachelors 2

Masters 3

Doctorate 4

Other (SPECIFY BELOW) _____ 5

_____

10 *Do you have any other training?*

No (GO TO Q. 12) 0

Yes. 1

Missing (GO TO Q. 12) 9

11 *What kind of training? (SPECIFY BELOW)* ___ ___

_____

_____

_____

12 *Which of the following best describes your race?*

Caucasian (not Hispanic) 1

African-American (not Hispanic) 2

Hispanic 3

American Indian. 4

Asian 5

Other (SPECIFY BELOW) _____ 6

_____

Missing 9

13 *Did you ever serve in the Armed Forces of the United States?*

No (GO TO NEXT SECTION) 0

Yes 1

Missing (GO TO NEXT SECTION) 9

14 *What branch of the Armed Forces?*

Army 1

Navy 2

Marines 3

15 *What type of discharge did you receive when you left the armed forces?*

Honorable 1

General 2

Undesirable 3

Bad conduct 4

Dishonorable or dismissal 5

Other_____ 6

Section B: General Life Satisfaction

Please look at this card. (HAND SUBJECT' THE DELIGHTED-TERRIBLE SCALE). This is called the Delighted-Terrible Scale (D/T Scale).

The scale goes from **terrible**, which is the lowest ranking of **1**, to **delighted**, which is the highest ranking of **7**. There are also points 2 through 6 with descriptions below them. (READ POINTS ON THE SCALE).

During the interview we'll be using this scale from time to time to help you tell me how you feel about different things in your life. All you have to do is tell me what on the scale best describes how you feel. For example, if I ask "how do you feel about chocolate ice cream" and you are someone who loves chocolate ice cream, you might point to "delighted." On the other hand, if you hate chocolate ice cream, you might point to "terrible." If you feel about equally satisfied and dissatisfied with chocolate ice cream, then you would point to the middle of the scale.

Do you have any questions about the scale? Please show me how you feel about chocolate ice cream. Let's begin.

The first question is a very general one.

1 *How do you feel about your life in general?*

D-T Scale . . . . . ____

Missing 9

Now, set the scale aside. I'll let you know when we need it again.

Section C: Living Situation

Now I am going to ask you some questions about your living situation.

1 *What is your <u>current</u> living situation?*

(USE CODES BELOW) . . . . . ___ ___

(If Respondent is currently in the hospital, and this hospitalization has lasted less than 3 months, LIVING SITUATION = LIVING SITUATION just prior to the hospitalization. If the hospitalization has been for 3 months or more, code "HOSPITAL").

01 Hospital

02 Skilled nursing facility:24 hour nursing service

03 Intermediate care facility:less than 24 hour nursing facility

04 Supervised group living:(generally long term)

05 Transitional group home:(halfway or quarterwayhouse)

06 Family foster care

07 Cooperative apartment,supervised (staff on premises)

08 Cooperative apartment, unsupervised(staff not on premises)

09 Board and care home: (private proprietary home for adults, with program and supervision)

10 Boarding house:(includes meals, no program or supervision)

11 Rooming or boarding house or hotel: (includes single room occupancy, no meals are provided, cooking facilities may be available)

12 Private house or apartment

13 Shelter

14 Jail

15 No current residence(including the streets, bus stations, missions, etc.)

16 Other:
_____
_____
_____

99 No information

2 *Have you lived any place else during the past <year>? (including hospital)*

No (GO TO Q. 5) 0

Yes (GO TO Q. 3) 1

Missing (GO TO Q. 5) 9

3 *List in order the places you have lived during the past ‹year›, including hospitalizations, beginning with your current living situation.*

	CODE	DESCRIPTION
a		
b		
c		
d		
e		
f		
g		
h		

01 Hospital

02 Skilled nursing facility:24 hour nursing service

03 Intermediate care facility:less than 24 hour nursing facility

04 Supervised group living:(generally long term)

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12 Private house or apartment

13 Shelter

14 Jail

15 No current residence(including the streets, bus stations, missions, etc.)

16 Other:
_____
_____
_____

99 No information

Total number of different, non-hospital residences, during past ‹year›?

(SPECIFY). . . . . ___ ___

4 *Which of these was your usual residence during the past <year>?*

(SPECIFY USING CODES BELOW) . . . . . ___ ___

01 Hospital

02 Skilled nursing facility:24 hour nursing service

03 Intermediate care facility:less than 24 hour nursing facility

04 Supervised group living:(generally long term)

05 Transitional group home:(halfway or quarterwayhouse)

06 Family foster care

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12 Private house or apartment

13 Shelter

14 Jail

15 No current residence(including the streets, bus stations, missions, etc.)

16 Other:
_____
_____
_____

99 No information

5 *During the past <year> did you sleep in any of the following locations?*

		NO	YES	MISS
A.	Outside without shelter	0	1	9
B.	Inside an empty building	0	1	9
C.	In a public shelter	0	1	9
D.	In a church/mission	0	1	9

6 *Do you <u>currently</u> have a regular place to live where you spend at least 5 out of 7 nights on the average?*

No 0

Yes. 1

Missing 9

7 *Now look at the D-T scale again and answer the following:*

(HAND RESPONDENT THE D-T SCALE. IF RESPONDENT IS CURRENTLY IN THE HOSPITAL FOR LESS THAN 3 MONTHS, USE MOST RECENT RESIDENCE PRIOR TO HOSPITALIZATION. IF RESPONDENT IS IN THE HOSPITAL 3 MONTHS OR MORE, USE HOSPITAL AS THE RESIDENCE. SKIP IF HOMELESS).

How do you feel about:

A. The living arrangements where you live? . . . . . ____

B. The food there? . . . . . ____

C. The rules there? . . . . . ____

D. The privacy you have there? . . . . . ____

E. The amount of freedom you have? . . . . . ____

F. The prospect of staying on where you currently five for a long period of time? . . . . . ____

8 *Still using the D-T Scale, answer the following:*

(IF RESPONDENT IS IN THE HOSPITAL FOR LESS THAN 3 MONTHS, USE MOST RECENT RESIDENCE PRIOR TO HOSPITALIZATION. IF RESPONDENT IS IN THE HOSPITAL 3 MONTHS OR MORE, USE HOSPITAL AS THE RESIDENCE. SKIP IF HOMELESS).

How do you feel about:

A. The people who live in the houses and apartments near yours? . . . ____

B. People who live in this community? . . . . . ____

C. The outdoor space there is for you to use outside your home? . . . . ____

D. The particular neighborhood as a place to live? . . . . . ____

E. This community as a place to live? . . . . . ____

F. How safe you feel in this neighborhood? . . . . . ____

Section D: Daily Activities & Functioning

1 *Now let's talk about some of the things you did with your time in the past week. I'm going to read you a list of things people may do with their free time. For each of these, please tell me if you did it during the past week. Did you...*

(READ OPTIONS A-P)?

		NO	YES	MISS
A.	Go for a walk?r	0	1	9
B.	Go to a movie or play?	0	1	9
C.	Watch television?	0	1	9
D.	Go shopping?	0	1	9
E.	Go to a restaurant or coffee shop?	0	1	9
F.	Go to a bar?	0	1	9
G.	Read a book, magazine or newspaper?	0	1	9
H.	Listen to a radio?	0	1	9
1.	Play cards?	0	1	9
J.	Go for a ride in a bus or car?	0	1	9
K.	Prepare a meal?	0	1	9
L.	Work on a hobby?	0	1	9
M.	Play a sport?	0	1	9
N.	Go to a meeting of some organization or social group? (INCLUDE PROGRAM-RELATED MEETINGS)	0	1	9
0.	Go to a park?	0	1	9
P.	Go to a library?	0	1	9

2 *Overall, how would you rate your functioning in home, social, school, and work settings at the present time? Would you say your functioning in these areas is excellent, good, fair or poor?*

Excellent 1

Good 2

Fair 3

Poor 4

Missing 9

3 *Now please look at the D-T Scale again. How do you feel about (READ OPTIONS A-F)?*

A. The way you spend your spare time? . . . . . ____

B. The amount of time you have to do the things you want to do? . . . ____

C. The chance you have to enjoy pleasant or beautiful things?. . . . . ____

D. The amount of fun you have? . . . . . ____

E. The amount of relaxation in your life? . . . . . ____

F. The pleasure you get from the television or radio?. . . . . ____

Section E: Family

The next few questions are about your relationship with your family including any relatives with whom you live.

1 *In the past ‹year›, how often did you talk to a member of your family on the telephone? Would you say at least once a day, at least once a week, at least once a month, less than once a month but at least once during the past ‹year›, or not at all?*

At least once a day 5

At least once a week 4

At least once a month 3

Less than once a month 2

Not at all 1

No family (GO TO SECTION F) 0

Missing 9

2 *In the past ‹year›, how often did you get together with a member of your family—at least once a day, at least once a week, at least once a month, less than once a month but at least once during the ‹year›, or not at all?*

At least once a day 5

At least once a week 4

At least once a month 3

Less than once a month 2

Not at all 1

No family (GO TO SECTION F) 0

Missing 9

3 *Please look at the D-T Scale again. How do you feel about (READ OPTIONS A-D)?*

A. Your family in general? . . . . . ____

B. How often you have contact with your family? . . . . . ____

C. The way you and your family act toward each other? . . . . . ____

D. The way things are in general between you and your family? . . . . ____

Section F: Social Relations

Now I'd like to know about other people in your life, that is, people who are not in your family.

1 *About how often do you do the following? Would you say, at least once a day, once a week, once a month, less than once a month or not at all?*

A. Do things with a close friend?

At least once a day 5
At least once a week 4
At least once a month 3
Less than once a month 2
Not at all 1
Missing 9

B. Visit with someone who does not live with you?

At least once a day 5
At least once a week 4
At least once a month 3
Less than once a month 2
Not at all 1
Missing 9

C. Telephone someone who does not live with you?

At least once a day 5
At least once a week 4
At least once a month 3
Less than once a month 2
Not at all 1
Missing 9

D. Write a letter to someone?

At least once a day 5
At least once a week 4
At least once a month 3
Less than once a month 2

Not at all 1

Missing 9

E. Do something with another person that you planned ahead of time?

At least once a day 5

At least once a week 4

At least once a month 3

Less than once a month 2

Not at all 1

Missing 9

F. Spend time with someone you consider more than a friend, like a spouse, boyfriend or girlfriend?

At least once a day 5

At least once a week 4

At least once a month 3

Less than once a month 2

Not at all 1

Missing 9

2 *Please look at the D-T Scale again. How do you feel about:*

A. The things you do with other people? . . . . . ____

B. The amount of time you spend with other people? . . . . . ____

C. The people you see socially? . . . . . ____

D. How you get along with other people in general? . . . . . ____

E. The chance you have to know people with whom you really feel comfortable? . . . . . ____

F. The amount of friendship in your life? . . . . . ____

Section G: Finances

A few questions about money.

1 *In the past <year> have you had any financial support from the following sources?*

		NO	YES	MISS
A.	Earned Incomer	0	1	9
B.	Social Security Benefits (SSA)	0	1	9
C.	Social Security Disability Income (SSDI)	0	1	9
D.	Supplemental Security Income (SSI)	0	1	9
E.	Armed Service connected disability payments	0	1	9
F.	Other Social Welfare benefits–state or county (general welfare, Aid to Families with DependentChildren (AFDC))	0	1	9
G.	Vocational program (Comprehensive Employment and Training Act (CETA), Vocational Rehabilitation, sheltered workshop)	0	1	9
H.	Unemployment compensation	0	1	9
1.	Retirement, investment or savings income	0	1	9
J.	Rent supplements (including HUD, Section 8 certificates, living programs receiving public assistance support)	0	1	9
K	Alimony and child support	0	1	9
L.	Food stamps	0	1	9
M.	Family and/or spouse contribution	0	1	9
N.	Other source(s) (SPECIFY BELOW)	0	1	9

2 *How much money did you receive during the <u>past month</u> from all of these sources?*

(SPECIFY) . . . . . $___ ___ ___ ___

Missing 9999

2a *Was this a usual <u>month</u> in terms of the amount of money you received?*

Yes (GO TO Q. 3) 1

No (GO TO Q. 2B) 0

Missing (GO TO Q. 2B) 9

2b *Would you say that the amount of money you received during the past month was more than or less than usual?*

More than usual 1

Less than usual 2

Missing 9

2c *How much would you say that you have usually received per month during the past year?*

(SPECIFY) . . . . . $__ __ __ __

Missing 9999

3 *On the average, how much money did you have to spend on yourself in the past month, not counting money for room and meals?*

(SPECIFY) . . . . . $__ __ __ __

Missing 9999

INTERVIEWER RATING:

HOW RELIABLE DO YOU THINK R'S RESPONSES WERE TO Q1:

Very Reliable 4

Generally Reliable 3

Generally Unreliable 2

Very Unreliable 1

4 *Is there anyone who handles your money for you?*

No (GO TO Q. 5) 0

Yes. 1

A. Are your checks mailed directly to this person?

No 0

Yes 1

5 *During the past <year>, did you generally have enough money each month to cover (READ OPTIONS A-F) ?*

	NO	YES	MISS
A. Food?	0	1	9
B. Clothing?	0	1	9
C. Housing?	0	1	9
D. Medical Care?	0	1	9
E. Traveling around the city for things like shopping, medical appointments, or visiting friends and relatives?	0	1	9
F. Social activities like movies or eating in restaurants?	0	1	9

6 *Now, I'd like you to use the D-T Scale again. In general, how do you feel about: (READ OPTIONS A-D) ?*

A. The amount of money you get? . . . . . ____

B. The amount of money you have to cover basic necessities such as food, housing, and clothes? . . . . . ____

C. How comfortable and well-off you are financially? . . . . . ____

D. The amount of money you have available to spend for fun? . . . . . ____

Section H: Work & School

1 *During a usual week, what do you do most of the time?*

Work at a job for pay (GO TO Q. 3) 1

Go to a structured day program 2

Go to school 3

Do volunteer work 4

Keep house. 5

Nothing much (e.g., drink coffee, smoke cigarettes, watch TV) 6

Something else (SPECIFY BELOW) 7

_____

Missing 9

2 *Are you currently working in a job for pay?*

No (GO TO Q. 11) 0

Yes. 1

Missing 9

3 *I'd like to know about the job you have now. What kind of business or industry do you work in? (IF MORE THAN ONE JOB, USE THE JOB AT WHICH THE PERSON EARNS THE HIGHER WEEKLY SALARY)*

(DESCRIBE BELOW) . . . . . ___ ___

_____

_____

_____

A. What kind of work do you do?

(SPECIFY BELOW) . . . . . ___ ___

_____

_____

_____

B. What are your most important activities or duties?

(SPECIFY BELOW) . . . . . ___ ___

_____

_____

_____

4 *How long have you been working at this job?*

# of months . . . . . ___ ___

Less than one month 995

Less than one week 996

Missing 999

5 *Is this job in a sheltered workshop?*

No 0

Yes. 1

Missing 9

6 *Do you have a special supervisor or a job coach?*

No 0

Yes. 1

Missing 9

7 *Is this a job you can keep as long as you wish?*

No 0

Yes (GO TO Q. 9) 1

Missing 9

8 *Is this a job that ends after a certain period of time when you are expected to find another job at another place of work?*

No 0

Yes. 1

Missing 9

9 *How many hours a week do you usually work?*

# of hours (SPECIFY) . . . . . ___ ___ ___

Missing 999

10 *How much do you earn per hour/week at this job (CHOOSE ONE)*

$ per hour . . . . . ___ ___ ___

$ per week . . . . . ___ ___ ___

(SKIP TO Q. 17)

11 *Have you ever worked in the past <year>?*

No 0

Yes. 1

Missing 9

12 *How long has it been since you had a job for pay?*

# of years . . . . . ___ ___

Less than a year 01

Missing 99

13 *What do you think is the main reason that you don't have a steady job right now?*

Psychiatric reasons. 1

Physical problems 2

Laid off 3

Looking/can't find a job 4

Other reason 5

Missing 9

14 *Are you looking for work right now?*

No (GO TO Q. 18) 0

Yes, full-time 1

Yes, part-time. 2

Yes, casual 3

Missing (GO TO Q. 18) 9

15 *How long have you been looking?*

‹ 1 month 0

1-3 months 1

4-6 months. 2

7-11 months 3

1-5 years 4

6-10 years 5

› 10 years 6

Missing (GO TO Q. 18) 9

16 *During the past ‹year› have you either:*

A. Filled out an application for a job?

No 0

Yes 1

Missing 9

B. Interviewed for a job?

No 0

Yes 1

Missing 9

(SKIP TO Q. 18)

17 *Job Satisfaction (USE D-T SCALE) (SKIP IF UNEMPLOYED):*

How do you feel about:

A. Your job? . . . . . ____

B. The people you work with? . . . . . ____

C. What it is like where you work (the physical surroundings) . . . . ____

D. The number of hours you work? . . . . . ____

E. The amount you get paid? . . . . . ____

18 *Have you been a student during the past <year>?.*

No (GO TO NEXT SECTION) 0

Yes. 1

Missing (GO TO NEXT SECTION) 9

19 *At what level was the schooling?*

High School (GRADES 9 - 12, INCLUDING GED) 1

Adult Education. 2

College (Undergraduate) 3

Graduate school. 4

Vocational/technical school 5

Job Training 6

Other (SPECIFY BELOW) 7

_____

20 *Did you carry a full-time load of studies?*

No 0

Yes. 1

Missing 9

21 *Are you attending now?*

No 0

Yes. 1

Missing 9

22 *Using the D-T Scale again, how do you feel about:*

A. Being a student? . . . . . ____

B. Your school? . . . . . ____

C. The other students at your school? . . . . . ____

Section I: Legal & Safety Issues

1. *In the past ‹year›, were you a victim of:*

A. Any violent crimes such as assault, rape, mugging, or robbery?

No 0

Yes 1

Missing 9

B. Any nonviolent crimes such as burglary, theft of your property or money or being cheated?

No 0

Yes 1

Missing 9

2 *Have you been arrested or picked-up for any crimes in the past ‹year›?*

ARRESTS . . . . . ___ ___

3. *Have you spent any nights in jail in the past ‹year›?.*

NIGHTS . . . . . ___ ___

4 *Please look at the D-T Scale again. How do you feel about: (READ OPTIONS A-E)?*

A. Your personal safety? . . . . . ____

B. How safe you are on the streets in your neighborhood? . . . . . ____

C. How safe you are where you live? . . . . . ____

D. The protection you have against being robbed or attacked? . . . . ____

E. Your chance of finding a policeman if you need one? . . . . . ____

Section J: Health

Now I'd like to ask you about your health.

1 *In general, would you say your health is:*

Excellent 1
Very Good 2
Good 3
Fair 4
Poor 5
Missing 9

2 *Compared to six months ago, how would you rate your health in general now?*

Much better now than six months ago 1
Somewhat better now than six months ago 2
About the same 3
Somewhat worse now than six months ago 4
Much worse now than six months ago 5
Missing 9

3 *How do you feel about (USE THE D/T SCALE)*

A. Your health in general? . . . . . ____
B. The medical care available to you if you need it? . . . . . ____
C. How often you see a doctor? . . . . . ____
D. The chance you have to talk with a therapist? . . . . . ____
E. Your physical condition? . . . . . ____
F. Your emotional well-being? . . . . . ____

Section K: Global Rating

1 *And a very general question again. using the D-T Scale again, how do you feel about your life in general?*

. . . . . _____

Time Ended (military time): __ __ : __ __

Quality of Life Interview

FULL VERSION INTERVIEWER MANUAL

Introduction

The purpose of the Quality of Life Interview, Full Version, (*QOLI-Full Version*) is to assess the life circumstances of persons with severe mental illness both in terms of what they actually do and experience (**"objective"** *quality of life*) and their feelings about these experiences (**"subjective"** *quality of life*).

The QOLI-Full Version was first developed in 1980 for use in a survey of persons with severe mental illness living in large board and care homes in Los Angeles (*N=278*). Since 1980, developmental work has continued on the instrument with several large surveys of persons with severe mental illness including persons who are dually diagnosed with a severe mental illness and a substance abuse disorder. A 1983 survey conducted in Rochester, New York assessed the quality of life of 99 long-term inpatients at a state psychiatric hospital and 92 former state hospital patients living in various community-based residential programs (*N=191*). A third survey using the QOLI-Full Version was carried out in Baltimore, Maryland from May 1988 to November 1990. This survey included 512 inpatients admitted to two psychiatric hospitals or a 28 day drug treatment program. A fourth survey, conducted as part of the National Evaluation of the Robert Wood Johnson Foundation Program on Chronic Mental Illness (*November 1988-February 1992*), consisted of 824 subjects from four demonstration sites, Baltimore, Cincinnati, Columbus, and Toledo. The instrument has also been used by all five sites (*Baltimore, Boston, Boston, San Diego, and two New York sites*) in the second generation McKinney demonstration grants (*1990-1993*) testing the effectiveness of a variety of approaches to providing mental health treatment, housing, and support services to homeless adults with severe mental illness (*N=896*).

The QOLI-Full Version has a total of 158 items and requires approximately 45 minutes to complete. We recommend that it should be administered in-person; it is not recommended as a questionnaire or a telephone interview. We also recommend that the entire 45 minute instrument should be administered. If a shorter instrument is required the Quality of Life Interview-Brief Version should be considered rather than selecting individual items from the QOLI-Full Version in an idiosyncratic manner (*the Quality of Life Interview-Brief Version is a 78 item instrument derived from the Full Quality of Life Interview and it takes about 16 minutes to complete. A manual is also available for this instrument*).

The QOLI-Full Version provides a broad based assessment of the recent and current life experiences of persons with severe mental illness in eight life domains: living situation, daily activities and functioning, family relations, social relations, finances, work and school, legal and safety issues, and health. The sections on each life domain are organized so that information is first obtained about **objective** quality of life and then about level of satisfaction in that life area, the **subjective** quality of life rating. This pairing of **objective** and **subjective** quality of life indicators by domain is essential to the quality of life assessment model. The interview also contains a global measure of life satisfaction which is asked at the beginning of the interview and again at the end. Information on basic demographic characteristics (*gender, age, marital status, number of children, education, vocational training, ethnicity, and military service*) is collected at the beginning of the interview.

The types of **objective** quality of life indicators that are used vary considerably across domains. In general they can be categorized as two types: measures of functioning (*for example, frequency of social contacts or daily activities*), and measures of access to resources and opportunities *(for example, income support or housing type)*. These **objective** indicators include both individual items (*for example, monthly income support*), *and scales (for example, frequency of social contacts)*. The **objective quality of life indicators** generated by the QOLI-Full Version include: Length of Time at Current Residence, Residential Stability, Homelessness, Daily Activities, Frequency of Family Contacts, Fre-

quency of Social Contacts, Total Monthly Spending Money, Adequacy of Financial Supports, Current Employment Status, Victimization, Number of Nights in Jail During the Past Year, and General Health Status.

All of the **subjective** quality of life satisfaction items in the QOLI-Full Version use a fixed interval (1-7) Delighted-Terrible Scale. The scale was originally developed in a national survey of the quality of American life. The scale is scored so that **1 (terrible)** indicates "the worst", **4 (mixed)** indicates "about equally satisfied and dissatisfied", and **7 (delighted)** indicates "the best." The scale should be administered in full; if a respondent has difficulty understanding the words describing each number on the scale or is unable to read the options, an alternative method for administering the scale is given in Section B of this manual (on pg.51). The **subjective quality of life indicators** generated by the QOLI-Full Version include: *Satisfaction with*: Living Situation, Daily Activities, Family Relations, Social Relations, Finances, Work and School, Legal and Safety, and Health.

Interviewer Training

The QOLI-Full Version can be administered to persons with severe mental illness by trained lay interviewers. The interviewers do not have to have a background in mental health or have clinical experience. However, the interviewers should be comfortable interviewing persons with mental illness and should have sufficient interpersonal skills to develop a relaxed rapport with respondents.

The trainee interviewer should begin by reading each section of the interview thoroughly together with this manual, and clarifying with the trainer that he or she understands the meaning of each and every question. This includes the Delighted-Terrible Scale fixed interval choices (1-7). At the end of this exercise there should be no ambiguity regarding the interpretation of any questions either in the interview or on the scale.

Once the interviewer is clear about the meaning of all of the questions, he or she should practice reading the instrument aloud so that it flows without hesitancy including the skip pattern sequences.

When the interviewer is clear about the meaning of each question, is comfortable with the flow of the instrument including the skip, patterns, and is familiar with the choices on the fixed interval scale, he or she should complete five practice interviews. These practice interviews should be conducted with persons with mental illness and each of the interviews should be video-taped. If video-taping is not available then an observer should sit in on each interview and rate the interview independent of the trainee interviewer. The same observer should sit in on all five practice interviews. At the end of each practice interview, the observer and the trainee should not discuss the ratings nor should any answers be changed.

Each video-taped interview should be viewed and rated by an "expert" rater and by any other interviewers undergoing training. All five practice interview ratings should be compared with the "expert" ratings and with the ratings of the other trainees who scored the video-taped interview. If an observer sits in on the interviews, the ratings of the trainee and the observer should be compared. Once there is a total of 80% agreement between the trainee interviewer and "the expert" across the five practice interviews, the interviewer is ready to conduct interviews in the field. If a trainee interviewer is not at 80% agreement, he or she should continue to make practice tapes until there are 5 tapes that give 80% agreement between the trainee interviewer and the "expert" rater.

Ongoing training should be available for interviewers who administer the QOLI-Full Version with periodic reviews of interviews by an "expert" rater. Again, these can be conducted by video-taping or by in-person observation. If a trained interviewer falls below 80% agreement, he or she should be taken out of the field until the problem is resolved and he or she is again able to reach a total of 80% agreement across five interviews with an "expert" rater.

Interview Setting

The QOLI-Full Version is best conducted in a private, quiet location. The most important aspect of the setting is that it should allow the respondent to answer each question without fear of being overheard or interrupted. Moreover, the setting should be quiet so that the interviewer and respondent can communicate in normal tones and concentrate on the interview without distraction. Suitable locations include inpatient hospital units, outpatient and satellite clinics, day and vocational programs, and the respondent's home. Respondents can be included in identifying a suitable location once they know the interview needs to be conducted in a private, quiet setting. For homeless respondents this may be a shelter, soup kitchen, a restaurant, or even a quiet park bench.

Informed Consent

We recommend that the interviewer begin each interview by clearly stating his or her name, the organization that the interviewer represents, and the purpose of the session, i.e. to conduct an interview that will take approximately 45 minutes. The interviewer should also confirm the identity of the respondent. Once this initial "set-up' is completed, the interviewer can proceed to the informed consent process. This will vary from study to study; enclosed in Appendix A of this manual is a sample consent form. Most informed consent procedures include information on: the name of the study and the principal investigator, the purpose of the study, the tasks and procedures of the study, the risks and benefits of participating in the study, confidentiality of the information given by the respondent, costs to the respondent of participating in the study, compensation given to the respondent for completing the interview, a right to withdraw statement, an organization statement, and a respondent statement.

When the informed consent procedure is complete, and all the local study site conditions are fulfilled, the interview can begin.

Interview Schedule

1 General Instructions

A. Ask each question as written.

B. Read each question slowly to ensure the respondent (R) fully understands it.

C. All answers are recorded on the right hand margin of the page. Each question should have only one answer unless it specifies "code all that apply." If R is vacillating between two responses, ask him/her to choose one, explaining that you can only code one answer. Make sure when circling an answer that the circle is tight around the number.

EXAMPLE:

Did you pass the high school equivalency test?

No 0
Yes . . . . . (1)
Missing 9

D. Notes should be recorded in the left hand margin.

E. Fill in open boxes using all spaces. Use lead zeros if necessary.

EXAMPLE:

What is your date of birth?

April 11, 1948 0 4 / 1 1 / 1 9 4 8

F. With open-ended questions, record R's answer on the SPECIFY line, and leave the codes blank.

EXAMPLE:

What kind of work do you do?

(SPECIFY BELOW) . . . . . ___ ___

CASHIER AT RESTAURANT

G. Interviewer instructions are written in large type and should not be read aloud to R.

EXAMPLE:

IF THE RESPONDENT IS CURRENTLY IN THE HOSPITAL, AND THIS HOSPITALIZATION HAS LASTED FOR LESS THAN 3 MONTHS, LIVING SITUATION = LIVING SITUATION JUST PRIOR TO THE HOSPITALIZATION. IF THE HOSPITALIZATION HAS BEEN FOR 3 MONTHS OR MORE, CODE "HOSPITAL."

H. The time frame used throughout most of the interview is a <year>. It is written this way to indicate that it may be changed depending on individual study sites. For example, you might want to use <past 2 months> or <past 6 months>. In these instances, every time a <year> is written you would substitute <past 2 months> or <past 6 months>.

I. Time frames that are underlined are fixed and should not be changed.

EXAMPLE:

Now let's talk about some of the things you did with your time in the <u>past week</u>.

J. Throughout the interview, there are no codes for "refused" or "don't know." Try and encourage R to select an answer from the options given. if R refuses to answer a question or is unable to answer a question, use the missing code, 9. Refrain from giving "missing" as an option from the list of choices.

Section A: Demographics

This section asks background questions about R.

Begin this section by recording the time in military time.

	Normal	=	MILITARY		Normal	=	MILITARY
AM	12:01	=	00:01	PM	noon	=	12:00
	1:00	=	01:00		1:00	=	13:00
	2:00	=	02:00		2:00	=	14:00
	3:00	=	03:00		3:00	=	15:00
	4:00	=	04:00		4:00	=	16:00
	5:00	=	05:00		5:00	=	17:00
	6:00	=	06:00		6:00	=	18:00
	7:00	=	07:00		7:00	=	19:00
	8:00	=	08:00		8:00	=	20:00
	9:00	=	09:00		9:00	=	21:00
	10:00	=	10:00		10:00	=	22:00
	11:00	=	11:00		11:00	=	23:00
					Midnight	=	24:00

1 *SEX OF RESPONDENT (CODE BY OBSERVATION)*

Circle appropriate code

2 *What is your date of birth?*

Fill in month, day, and year using lead zeros if necessary

3 *How old are you?*

Fill in R's current age.

4 *What is your marital status?*

Code R's current marital status.

5a *How many children do you have?*

Record all children including step-children, adopted and foster children.

5b *How many of your children are under 18 years of age?*

Fill in the number of children who are currently under 18

6 *What is the highest grade in school or year of college you have completed?*

Code the actual number of years in school For example, if R has an AA. degree code 14, or a BA degree code 16 regardless of how long it took R to obtain the degree.

NOTE THE SKIP PATTERN HERE: If Q6 CODED 12 OR MORE GO TO Q8.

7 *Did you pass a high school equivalency test?*

Code 1 only if R passed a test

8 *Do you have a college degree?*

Code 1 only if R has been awarded a college degree.

9 *What degree is that?*

Code the highest degree R has received

10 *Do you have any other training?*

Code any training that is a job skill.

11 *What kind of training?*

Write R's answer in full and leave the codes blank.

12 *Which of the following best describes your race?*

Read all of the options to R and code response. If "other" write an explanation on the SPECIFY line.

13 *Did you ever serve in the Armed Forces of the United States of America?*

Code 1 if R has ever been in the Army, Navy or Marines. Code 0 if no, or if R has been in the National Guard or Reserves only.

14 *What branch of the Armed Forces?*

Circle as appropriate.

15 *What type of discharge did you receive?*

Circle as appropriate. If R does not fit one of the options, code "other".

Section B: General Life Satisfaction

This section introduces the Delighted-Terrible Scale and asks R to use the scale to rate his or her overall quality of life.

For this section, and subsequent questions where R is asked to give a subjective quality of life rating, hand the Delighted-Terrible (D/T) Scale to R.

To orient R to the scale, read aloud:

"Please look at this card. This is called the Delighted-Terrible Scale. The scale goes from terrible, which is the lowest ranking of 1, to delighted, which is the highest ranking of 7. There are also points 2 through 6 with descriptions below them."

STOP, read each number and word explanation on the D/T Scale aloud with R. Then continue:

"During the interview we'll be using this scale from time to time to help you tell me how you feel about different things in your life. AS you can tell me which point on the scale best describes how you feel. For example, if I ask " how do you feel about chocolate ice-cream" and you are someone who loves chocolate ice-cream, you might point to "delighted." On the other hand, if you hate chocolate ice-cream, you might point to "terrible." If you feel about equally satisfied and dissatisfied with chocolate ice cream, you would point to the middle of the scale. Do you have any questions about the scale? Please show me how you feel about chocolate ice-cream."

> **If R is unable to read, or has obvious difficulty understanding the scale, use the version of the D/T scale with the arrows or the "smiley faces"** *(a sample of each one is in Appendix B, Section 1)*.
> **R can point to one of the arrows or faces to give a response.**

When you are satisfied that R understands bow to use the scale, ask:

1 *How do you feel about your life in general?*

Code one number (1-7) from the D/T Scale. If R points between the numbers, explain that you can only code a whole number between 1-7.

Section C: Living Situation

This section asks about R's housing situation and neighborhood.

1 *What is your <u>current</u> living situation?*

Have R name the type of living situation and code the type from the list provided. Pay attention to the interviewer instruction which tells you bow to code if R is currently in the hospital.

2 *Have you lived any place else during the past ‹year›?*

If R has lived anyplace else, other than current living situation, in the past ‹year› code 1; otherwise code 0 or 9 and skip to Q5.

3 *List in order the places you have lived during the past ‹year›, including hospitalizations, beginning with your <u>current</u> living situation.*

Ask R to list all the places he or she has lived during the past year including **any** and code each one using the codes in Q1. Sum to give a total number excluding the hospital stays.

4 *Which of these was your usual residence during the past ‹year›.*

Code the residence at which R lived the longest in the past year.

5 *During the past ‹year› did you sleep in any of the following locations?*

Read A-D aloud to R and ask if he or she has spent a night there in the past year

6 *Do you <u>currently</u> have regular place to live where you spend at least 5 out of 7 nights?*

Circle as appropriate.

7 *READ THE INTERVIEWER INSTRUCTIONS SILENTLY.*

Hand R the D/T scale. For each question 7A–7F repeat the lead sentence and ask R to pick a number (1-7) from the scale.

EXAMPLE:

"Using the D/T scale, how do you feel about the living arrangements where you live?"

"Using the D/T scale, how do you feel about the privacy you have there?"

8 *READ THE INTERVIEWER INSTRUCTIONS SILENTLY.*

Tell R the next set of questions will continue to use the D/T scale. Repeat the lead sentence, "How do you feel" for each question 8A-8F.

Section D: Daily Activities & Functioning

This section asks about activities in the past week and overall level of functioning.

1 *Now let's talk about some of the things you did with your time in the past week.*

Read the lead-in sentences aloud to R and ask "In the past week did you... " for each item 1A-1P. Circle as appropriate.

EXAMPLE:

"In the past week did you go for a walk?"

"In the past week did you go to a movie or a play."

2 *Overall, how would you rate your functioning in home, social, school, and work settings at the present time? Would you say your functioning in these areas is excellent, good, fair or poor?*

Circle as appropriate.

3 *Now please look at the D-T Scale again. How do you feel about:*

Hand R the D/T scale For each question 3A-3F ask R, "How do you feel about..."

EXAMPLE:

"How do you feel about the way you spend your free time?"

"How do you feel about the time you have to do the things you want to do?"

Section E: Family

This section asks questions about R's relationship with family and relatives.

1 *In the past ‹year›, how often did you talk to a member of family on the telephone? Would you say at least once a day, at least once a week, at least once a month, less than once a month but at least once during the past ‹year›, or not at all?*

Relatives include blood relations and relatives by marriage for example, husband, wife, children, grandparents, in-laws, grandchildren, cousins and step-relatives.

Circle as appropriate. Skip to next section if 0.

2 *In the past ‹year›, how often did you get together with a member of your family-at least once a day, at least once a week, at least once a month, less than once a month but at least once during the past ‹year›, or not at all?*

Get together means a face-to-face meeting.

Circle as appropriate. Skip to next section if 0.

3 . *Hand R the D/T scale. For each question 3A-3D, as "How do you feel about..."*

EXAMPLE:

"Using the D/T scale, how do you feel about your family in general?"

Section F: Social Relations

This section asks questions about other people in R's life, that is, friends and acquaintances, **not relatives**.

1 *About how often would you do the following? Would you say at least once a day, once a week, once a month, less than once a month, or not at all?*

Read lead-in question and options to R. Ask each individual item, IA-IF, repeating the options and fill in code.

EXAMPLE:

"How often do you do things with a close friend? Would you say once a day, at least once a week, at least once a month, less than once a month, or not at all."

"How often do you visit with someone who does not live with you? Would you say once a day, at least once a week, at least once a month, less than once a month, or not at all."

"How often do you telephone someone who does not live with you? Would you say once a day, at least once a week, at least once a month, less than once a month, or not at all."

2 *Please look at the D-T Scale again. How do you feel about:*

Hand R the D/T scale. Ask each item, 2A-2F, using the lead in phrase "How do you feel about..."

Section G: Finances

This section asks R about the amount and source of financial support in the past ‹year›.

1 *In the past ‹year› have you had any financial support from the following sources?*

Read each item 1A-1N to R. Circle appropriate code for each item.

1A: Earned income is income from any paid work.

1N: Other source(s) can include income from winnings such as a lottery, income from panhandling, or income from gifts and inheritances.

2 *How much did you receive during the past month from all of these sources?*

Ask R to give you the exact dollar amount of income in the past month rounding up to the nearest dollar. Do not alter this time frame.

EXAMPLE:

$484.85

_____ 0 4 8 5

2a *Was this a usual <u>month</u> in terms of the amount of money you received?*

A usual month means in terms of the amount of money R received per month during the past ‹year›. If this varies a lot, average the amount over the past 6 months and compare the dollar amount in the past month to this average.

Circle as appropriate. If coded 1, skip to Q3.

2b *Would you say the amount of money you received during the <u>past month</u> was more or less than usual?*

Usual in terms of the amount of money R received per month during the past ‹year›.

Circle as appropriate.

2c *How much would you say you have usually received <u>per month</u> during the past year?*

Record exact dollar amount rounding up to the nearest dollar

3 *On the average, how much money did you have to spend on yourself in the <u>past month</u>, not counting money for room and meals?*

Record all discretionary income and spending or pocket money, excluding money spent on food and accommodation. (Money spent on accomodation includes money for rent, gas/electric, water and sewage, and other standard household bills.) Total this amount and record the exact dollar amount rounding up to the nearest dollar.

NOTE INTERVIEWER INSTRUCTION. READ SILENTLY AND CIRCLE APPROPRIATE CODE.

4 *Is there anyone who handles money for you?*

This may be a formal arrangement such as a representative payee or an informal arrangement such as a family member or friend who manages R's finances Circle appropriate code

If 0, go to Q5.

4 a *Are your checks mailed directly to this person?*

Circle appropriate code

5 *During the past <year>, did you generally have enough money each month to cover (READ OPTIONS A-F)?*

Ask R each item A-F and circle appropriate code. If R is vacillating between No and Yes with "Sometimes", ask, "Overall, did you have enough money to cover the item," and circle appropriate code, No or Yes.

6 *Now, I'd like you to use the D-T Scale again. In general, how do you feel about:*

Hand R the D/T scale Ask each item, 6A-6D, using the lead in phrase "How do you feel about... "

Section H: Work & School

This section asks about R's emoyment and school.

1 *During a usual week, what do you do <u>most of the time</u>?*

Read options to R. Circle as appropriate. If 1, skip to Q3.

2 *Are you currently working in a job for pay?*

Circle as appropriate. If 0, go to Q11.

3 *I'd like to know about the job you have now. What kind of business or industry do you work in?*

Record R's response, leave the codes blank

EXAMPLE:

(DESCRIBE) _____

3a *What kind of work do you do?*

Record R's responses, leave the codes blank

EXAMPLE:

(SPECIFY) _____

3b *What are your most important activities or duties*

Record R's responses, leave the codes blank

EXAMPLE:

(SPECIFY) _____

4 *How long have you been working at this job?*

Record R's response in months; convert years to months

EXAMPLE: 2 and a 1/2 years. 0 3 0

5 *Is this job at a sheltered workshop?*

Circle as appropriate.

6 *Do you have a special supervisor or a job coach?*

Circle as appropriate.

7 *Is this a job you can keep as long as you wish?*

Circle as appropriate. If 1, skip to Q9.

8 *Is this a job that ends after a certain period of time when you are expected to find another job at another place of work?*

Circle as appropriate.

9 *How many hours a week do you usually work?*

Record total number of hours worked per week; round up to the nearest hour.

10 *How much do you earn per hour/week at this job?*

Pick either earnings per hour or earnings per week and record the amount rounding to the nearest dollar. Fill in the option not selected with zeros.

NOTE INTERVIEWER INSTRUCTION TO SKIP TO Q17.

11 *Have you ever worked in the past ‹year›?*

Circle appropriate code

12 *How long has it been since you had a job for pay?*

Record R's response in years.

13 *What do you think is the main reason that you don't have a steady job right now?*

Read options to R and circle appropriate code.

14 *Are you looking for work right now?*

Circle appropriate code. If 0 or 9, go to Q18.

15 *How long have you been looking?*

Circle appropriate code. if 9, skip to Q18

16 *During the past ‹year› have you either:*

A. Filled out an application for a job?

Circle appropriate code.

REPEAT: "During the past ‹year› have you..."

B. Interviewed for a job?

Circle appropriate code.

NOTE INTERVIEWER INSTRUCTIONS HERE. SKIP TO Q18.

17 *[Questions about how R feels about their job].*

Hand R the D/T scale. For each item, 17A-17E, use the lead-in phrase "How do you feel about...

18 *Have you been a student in the past <year>?*

Circle appropriate code. If 0 or 9, skip to next section.

19 *At what level was the schooling?*

Circle appropriate code

20 *Did you carry a full-time load of studies?*

Circle appropriate code

21 *Are you attending now?*

Circle appropriate code.

22 *[Questions about R's feelings about being a student and R's school].*

Hand R the D/T scale For each item, 22A-22C, use the lead-in phrase "How do you feel about... "

Section I: Legal & Safety Issues

This section asks R about victimization and involvement -with the legal justice systems.

1 *In the past ‹year›, were you the victim of:*

A. Any violent crimes such as assault rape, mugging or robbery?

Circle as appropriate.

REPEAT. "In the past ‹year›, were you the victim of":

B. Any nonviolent crimes such as burglary, theft of your property or money, or being cheated?

Circle as appropriate.

2 *Have you been arrested or picked up for any crimes in the past ‹year›?*

Fill in the number of arrests. If zero, fill in 000.

3 *Have you spent any nights in jail in the past ‹year›?*

Fill in the number of nights in jail. If zero, fill in 000.

4 *[Questions about how R feels about R's safety].*

Hand R the D/T scale again. For each item, 4A-4E, use the lead-in sentence "How do you feel about... "

Section J: Health

This section asks about health status.

1. **In general, would you say your health is:**

   Read each option aloud to R and circle appropriate code

2 **<u>Compared to six months ago</u>, how would you rate your health in general now?**

   Read each option aloud to R and circle appropriate code.

3. **[Questions about R's health].**

   Hand R the D/T scale. For each option A-F, use the lead-in phrase "How do you feel about... -

Section K: Global Rating

This section asks R to give a global rating for life satisfaction.

Hand R the D/T scale.

1. **And a very general question again. Using the DT Scale again, ...how do you feel about your life in general?**

   Circle appropriate code.

   Complete the interview by recording the time in military time

   TELL R THIS IS THE END OF THE INTERVIEW. THANK R FOR COMPLETING IT WITH YOU

Appendix A

Sample Consent Form

Full Version

Quality of Life Interview
Participant Consent Form

Principal Investigator: Jane Doe, Ph.D.

Agency for Quality of Life Research

123 Any Street

Anytown, 01234

Tel: (area code) 987-6543

Purpose

The Agency for Quality of Life Research is conducting a study on quality of life.

Procedures/Tasks

If you agree to participate you will be interviewed by a trained interviewer. The interview will last about 45 minutes. The interviewer will ask you questions about your current living situation, your employment and financial circumstances, your daily activities, your relationships with family and friends, your experience of crime and the legal justice system, and your health including your mental health.

Risks

The risks to you are minimal. The only possible risk is that some of the questions asked about your health and life conditions may cause you some temporary anxiety. You can refuse to answer any questions that make you feel uncomfortable.

Benefits

There are no direct benefits to you as a result of participating in this study.

Confidentiality

Your identity and the information you provide will be kept strictly confidential and your answers will never be linked to you in any way. Whether or not you agree to participate in this study, there will be no change in the services you receive or your eligibility for any benefits.

Costs

There are no costs to you for your participation.

Compensation

You will be paid $XX for completion of the interview.

Right To Withdraw

Your participation in these interviews is entirely voluntary; you can withdraw from the interview at any time.

Agency Statement

If you should suffer any physical injury during your participation in this interview, the Agency for Quality of Life Research will provide acute medical treatment and referrals to appropriate medical care facilities. However, The Agency for Quality of Life Research cannot provide any financial compensation due to injury suffered during the interview. Information about this interview can be obtained from:

the Human Volunteers Review Board, The Agency for Quality of Life Research, 123 Any Street, Anytown, 01234 The telephone number is (area code) 987-6543.

Participant Statement

I have been able to ask about this interview and discuss any related issues. I will be given a copy of this consent form.

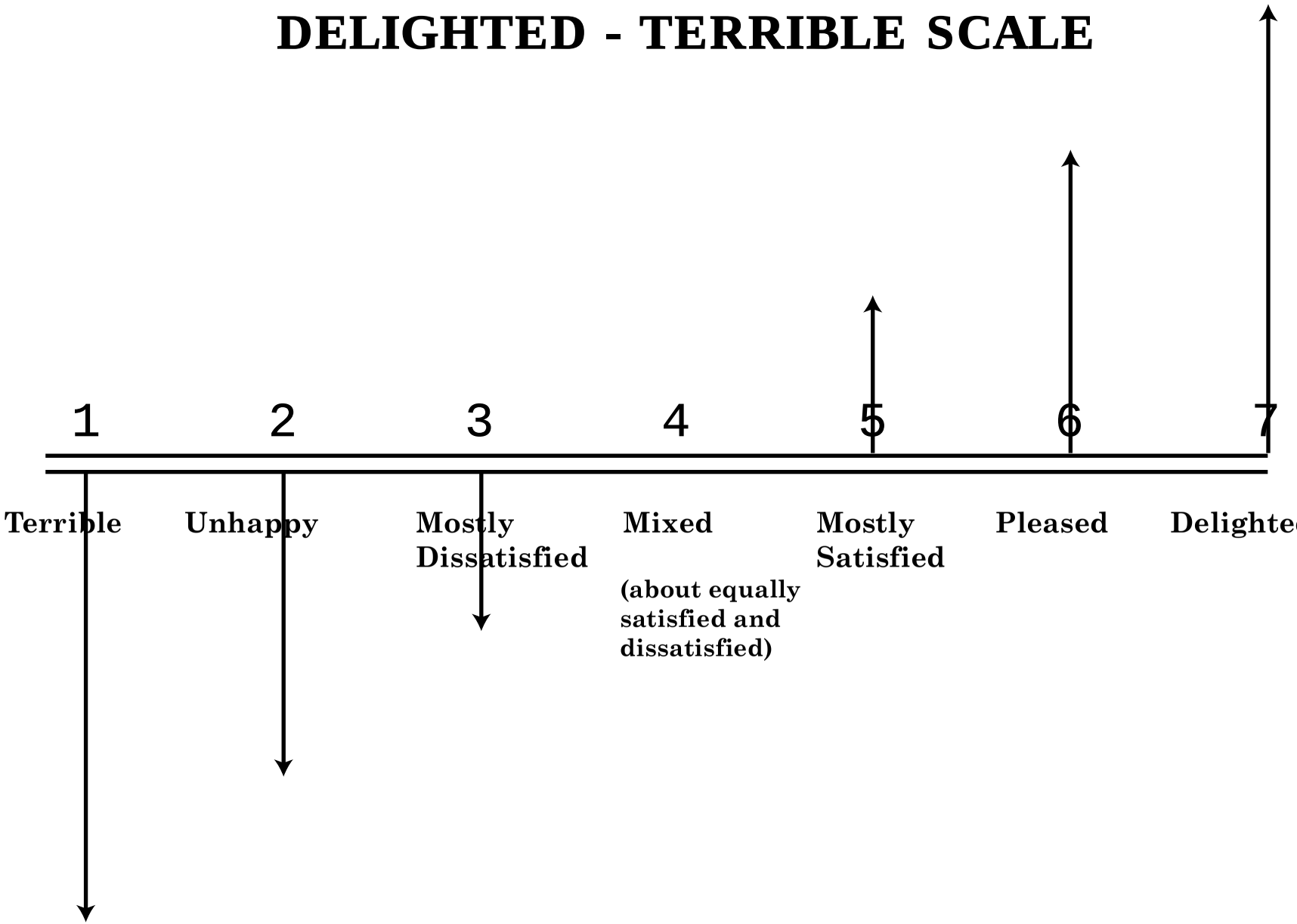
Signature of Participant	Date
Signature of Witness	Date
Signature of Principal Investigator	Date

Appendix B

D - T SCALE

1
2
3
4
5
6
7
TERRIBLE
UNHAPPY
MOSTLY DISSATISFIED
MIXED
MOSTLY SATISFIED
PLEASED
DELIGHTED

DELIGHTED - TERRIBLE SCALE



Section II

Quality Of Life Interview

BRIEF VERSION

Time Began (military time): ___ ___ : ___ ___

Section A: General Life Satisfaction

Please look at this card. (HAND SUBJECT THE DELIGHTED-TERRIBLE SCALE). This is called the Delighted-Terrible Scale (D/T Scale).

The scale goes from **terrible**, which is the lowest ranking of **1**, to **delighted**, which is the highest ranking of **7**. There are also points 2 through 6 with descriptions below them. (READ POINTS ON THE SCALE).

During the interview we'll be using this scale from time to time to help you tell me how you feel about different things in your life. All you have to do is tell me what on the scale best describes how you feel. For example, if I ask, "how do you feel about chocolate ice cream" and you are someone who loves chocolate ice cream, you might point to "delighted." On the other hand, if you hate chocolate ice cream, you might point to "terrible." If you feel about equally satisfied and dissatisfied with chocolate ice cream, then you would point to the middle of the scale.

Do you have any questions about the scale? Please show me how you feel about chocolate ice cream. Let's begin.

The first question is a very general one.

1 *How do you feel about your life in general?*

D-T SCALE . . . . . ____

Missing 9

Now, set the scale aside. I'll let you know when we need it again.

Section B: Living Situation

Now I am going to ask you some questions about your living situation.

1 *What is your <u>current</u> living situation?*

(USE CODES BELOW) . . . . . ___ ___

(IF RESPONDENT IS CURRENTLY IN THE HOSPITAL, AND THIS HOSPITALIZATION HAS LASTED LESS THAN 3 MONTHS, LIVING SITUATION = LIVING SITUATION JUST PRIOR TO HOSPITALIZATION. IF THE HOSPITALIZATION HAS BEEN FOR 3 MONTHS OR MORE, CODE "HOSPITAL").

01 Hospital

02 Skilled nursing facility:24 hour nursing service

03 Intermediate care facility:less than 24 hour nursing facility

04 Supervised group living:(generally long term)

05 Transitional group home:(halfway or quarterwayhouse)

06 Family foster care

07 Cooperative apartment,supervised (staff on premises)

08 Cooperative apartment, unsupervised(staff not on premises)

09 Board and care home: (private proprietary home for adults, with program and supervision)

10 Boarding house:(includes meals, no program or supervision)

11 Rooming or boarding house or hotel: (includes single room occupancy, no meals are provided, cooking facilities may be available)

12 Private house or apartment

13 Shelter

14 Jail

15 No current residence(including the streets, bus stations, missions, etc.)

16 Other:
_____
_____
_____

99 No information

2 *List in order the places you have lived during the past ‹year›, including psychiatric hospitalizations, beginning with your current living situation.*

	CODE	DESCRIPTION
a		
b		
c		
d		
e		
f		
g		
h		

01 Hospital

02 Skilled nursing facility:24 hour nursing service

03 Intermediate care facility:less than 24 hour nursing facility

04 Supervised group living:(generally long term)

05 Transitional group home:(halfway or quarterwayhouse)

06 Family foster care

07 Cooperative apartment,supervised (staff on premises)

08 Cooperative apartment, unsupervised (staff not on premises)

09 Board and care home: (private proprietary home for adults, with program and supervision)

10 Boarding house:(includes meals, no program or supervision)

11 Rooming or boardinghouseor hotel: (includes single room occupancy, no meals are provided, cooking facilities may be available)

12 Private house or apartment

13 Shelter

14 Jail

15 No current residence(including the streets, bus stations, missions, etc.)

16 Other:
_____
_____
_____

99 No information

2G *Total number of different, non-hospital residences, during the past ‹year›?*

(SPECIFY) . . . . . ___ ___

3 *Which of these was your usual residence during the past <year>?*

(USE CODES BELOW) . . . . . ___ ___

01 Hospital

02 Skilled nursing facility:24 hour nursing service

03 Intermediate care facility:less than 24 hour nursing facility

04 Supervised group living:(generally long term)

05 Transitional group home:(halfway or quarterwayhouse)

06 Family foster care

07 Cooperative apartment,supervised (staff on premises)

08 Cooperative apartment, unsupervised (staff not on premises)

09 Board and care home: (private proprietary home for adults, with program and supervision)

10 Boarding house:(includes meals, no program or supervision)

11 Rooming or boardinghouseor hotel: (includes single room occupancy, no meals are provided, cooking facilities may be available)

12 Private house or apartment

13 Shelter

14 Jail

15 No current residence(including the streets, bus stations, missions, etc.)

16 Other:
_____
_____
_____

99 No information

4 *Now look at the D-T Scale again and answer the following:*

(HAND RESPONDENT THE D-T SCALE. IF RESPONDENT IS CURRENTLY IN TIE HOSPITAL FOR LESS MAN 3 MONTHS, USE MORE RECENT RESIDENCE PRIOR TO HOSPITALIZATION. IF RESPONDENT IS IN THE HOSPITAL 3 MONTHS OR MORE, USE HOSPITAL AS THE RESIDENCE. SKIP IF HOMELESS).

How do you feel about

A. The living arrangements where you live? . . . . . ____

B. The privacy you have there? . . . . . ____

C The prospect of staying on where you currently live for a long period of time? . . . . . ____

Section C: Daily Activities & Functioning

1 *Now let's talk about some of the things you did with your time in the past week . I'm going to read you a fist of things people may do with their free time. For each of these, please tell me if you did it during the past week. Did you (READ OPTIONS A-H)*

		NO	YES	MISS
A.	Go for a walk?r	0	1	9
B.	Go shopping?	0	1	9
C.	Go to a restaurant or coffee shop?	0	1	9
D.	Read a book, magazine or newspaper?	0	1	9
E.	Go for a ride in a bus or car?	0	1	9
F.	Work on a hobby?	0	1	9
G.	Play a sport?	0	1	9
H.	Go to a park?	0	1	9

2 *Overall, how would you rate your functioning in home, social, school, and work settings at the present time? Would you say your functioning in these areas is excellent, good, fair or poor?*

Excellent 1

Good 2

Fair 3

Poor 4

Missing 9

3 *Now please look at the D-T Scale again.*

How do you feel about

A. The way you spend your spare time? . . . . . ____

B. The chance you have to enjoy pleasant or beautiful things?. . . . . ____

C. The amount of fun you have? . . . . . ____

D. The amount of relaxation in your life? . . . . . ____

Section D: Family

The next few questions are about your relationship with your family including any relatives with whom you live.

1 *In the past ‹year›, how often did you talk to a member of your family on the telephone? Would you say at least once a day, at least once a week, at least once a month, less than once a month but at least once during the year, or not at all?*

At least once a day 5

At least once a week 4

At least once a month 3

Less than once a month 2

Not at all 1

No family (GO TO SECTION E) 0

Missing 9

2 *In the past ‹year›, how often did you get together with a member of your family—at least once a day, at least once a week, at least once a month, less than once a month but at least once during the year, or not at all?*

At least once a day 5

At least once a week 4

At least once a month 3

Less than once a month 2

Not at all 1

No family (GO TO SECTION E) 0

Missing 9

3 *Please look at the D-T Scale again. How do you feel about:*

A. The way you and your family act toward each other? . . . . . ____

B. The way things are in general between you and your family? . . . . . ____

Section E: Social Relations

Now I'd like to know about other people in your life, that is, people who are not in your family.

1 *About how often do you do the following? Would you say, at least once a day, once a week, once a month, less than once a month or not at all?*

At least once a day 5

At least once a week 4

At least once a month 3

Less than once a month 2

Not at all 1

Missing 9

A. Visit with someone who does not live with you? . . . . . ____

B. Telephone someone who does not live with you? . . . . . ____

C. Do something with another person that you planned ahead of time? . . . . . ____

D. Spend time with someone you consider more than a friend, like a spouse, a boyfriend or a girlfriend? . . . . . ____

2 *Please look at the D-T Scale again. How do you feel about:*

A. The things you do with other people? . . . . . ____

B. The amount of time you spend with other people? . . . . . ____

C. The people you see socially? . . . . . ____

Section F: Finances

A few questions about money.

1 *In the past <year> have you had any financial support from the following sources?*

		NO	YES	MISS
A.	Earned Incomer	0	1	9
B.	Social Security Benefits (SSA)	0	1	9
C.	Social Security Disability Income (SSDI)	0	1	9
D.	Supplemental Security Income (SSI)	0	1	9
E.	Armed Service connected disability payments	0	1	9
F.	Other Social Welfare benefits–state or county (general welfare, Aid to Families with DependentChildren (AFDC))	0	1	9
G.	Vocational program (Comprehensive Employment and Training Act (CETA), Vocational Rehabilitation, sheltered workshop)	0	1	9
H.	Unemployment compensation	0	1	9
1.	Retirement, investment or savings income	0	1	9
J.	Rent supplements (including HUD, Section 8 certificates, living programs receiving public assistance support)	0	1	9
K	Alimony and child support	0	1	9
L.	Food stamps	0	1	9
M.	Family and/or spouse contribution	0	1	9
N.	Other source(s) (SPECIFY BELOW)	0	1	9

2 *How much money did you receive during the <u>past month</u> from all of these sources?*

(SPECIFY) . . . . . $___ ___ ___ ___

Missing 9999

3 *On the average, how much money did you have to spend on yourself in the <u>past month</u>, not counting money for room and meals?*

(SPECIFY) . . . . . $___ ___ ___ ___

Missing 9999

INTERVIEWER RATING:

HOW RELIABLE DO YOU THINK R'S RESPONSES WERE TO Q1?

VERY RELIABLE 4

GENERALLY RELIABLE 3

GENERALLY UNRELIABLE 2

VERY UNRELIABLE 1

4 *During the past <year>, did you generally have enough money each month to cover ... (READ OPTIONS A-F)*

		NO	YES	MISS
A.	Food?	0	1	9
B.	Clothing?	0	1	9
C.	Housing?	0	1	9
D.	Medical Care?	0	1	9
E.	Traveling around the city for things like shopping, medical appointments, or visiting friends and relatives?	0	1	9
F.	Social activities like movies or eating in restaurants?	0	1	9

5 *Now, I'd like to use the D-T Scale again.*

In general, how do you feel about:

A. The amount of money you get? . . . . . ____

B. How comfortable and well-off you are financially?. . . . . ____

C. The amount of money you have available to spend for fun? . . . . . ____

Section G: Work & School

1 *Have you worked during the past ‹year›, that is since (DATE)?*

Are you working now?

Yes, currently working 1

Yes, worked in the past ‹year› but not currently employed (GO TO NEXT SECTION) 2

No work in the past ‹year› (GO TO NEXT SECTION) 0

Missing 9

2 *What kind of work do you do at the present time?*

(IF MORE THAN ONE JOB, USE JOB AT WHICH THE RESPONDENT EARNS THE HIGHER WEEKLY SALARY)

(SPECIFY BELOW) . . . . . ___ ___

_____

_____

_____

3 *How many hours a week do you usually work?*

# of hours . . . . . ___ ___ ___

Missing 999

4 *How much do you earn per hour/week at this job? (CHOOSE ONE)*

$ per hour . . . . . $__ __ __ __

$ per week . . . . . $__ __ __ __

5 *JOB SATISFACTION (USE D-T SCALE) How do you feel about:*

A. Your job? . . . . . ____

B. What it is like where you work (the physical surroundings) . . . . . ____

C. The amount you get paid? . . . . . ____

Section H: Legal & Safety Issues

1 *In the past ‹year›, were you a victim of:*

A. Any violent crimes such as assault, rape, mugging, or robbery?

No 0

Yes 1

Missing 9

B. Any nonviolent crimes such as burglary, Theft of your property or money, or being cheated?

No 0

Yes 1

Missing 9

2 *In the past ‹year›, have you been arrested or picked-up for any crimes?*

# of arrests . . . . . ___ ___

3 *Please look at the D-T Scale again. How do you feel about:*

A. How safe you are
on the streets in your neighborhood? . . . . . ____

B. How safe you are where you live? . . . . . ____

C. The protection you have
against being robbed or attacked? . . . . . ____

Section I: Health

Now I'd like to ask about your health.

1 *in general, would you say your health is:*

Excellent 1

Very Good 2

Good 3

Fair 4

Poor 5

Missing 9

2 *How do you feel about: (USE THE D/T SCALE)*

A. Your health in general? . . . . . ____

B. Your physical condition? . . . . . ____

C. Your emotional well-being? . . . . . ____

Section J: Global Rating

1 *And a very general question again. Using the D-T Scale again,*

How do you feel about your life in general? . . . . . ____

Time Ended (military time): __ __ : __ __

Quality of Life Interview

BRIEF VERSION INTERVIEWER MANUAL

Introduction

As with the Quality of Life Interview, Full Version (*QOLI-Full Version*) the purpose of the Quality of life Interview, Brief Version, (*QOLI-Brief Version*) is to assess the life circumstances of persons with severe mental illness both in terms of what they actually do and experience (*"objective" quality of life*) and their feelings about these experiences (*"subjective" quality of life*).

The QOLI-Brief Version was developed in 1994 in response to many requests for a briefer form of the QOLI-Full Version. The QOLI-Brief Version is a 74 item instrument derived from the QOLI-Full Version, and it takes about 16 minutes to complete. Its psychometric properties are comparable to the QOLI-Full Version.

The QOLI-Brief Version provides a broad based assessment of the recent and current life experiences of the persons with severe mental illness in eight life domains: living situation, daily activities and functioning, family relations, social relations, finances, work and school, legal and safety issues, and health. The sections on each life domain are organized so that information is first obtained about **objective** quality of life and then about level of satisfaction in that life area, the **subjective** quality of life rating. This pairing of **objective** and **subjective** quality of life indicators by domain is essential to the quality of life assessment model. The interview also contains a global measure of life satisfaction which is asked at the beginning of the interview and again at the end.

The types of **objective** quality of life indicators that are used vary considerably across domains. In genera l they can be categorized as two types: measures of functioning (*for example, frequency of social contacts or daily activities*), and measures of access to resources and opportunities (*for example, income support or housing type*). These **objective** indicators include both individual items (*for example, monthly income support*), and scales (*for example, frequency of social contacts*). The **objective quality of life indicators** generated by the QOLI-Brief Version include: Residential Stability, Homelessness, Daily Activities, Frequency of Family Contacts, Frequency of Social Contacts, Total Monthly Spending Money, Adequacy of Financial Supports, Current Employment Status, Number of Arrests During the Past Year, Victim of Violent Crime During Past Year, Victim of Non-Violent Crime During the Past Year, and General Health Status.

All of the **subjective** quality of life satisfaction items in the QOLI-Brief Version use a fixed interval (1-7) Delighted-Terrible Scale. The scale was originally developed in a national survey of the quality of American life. The scale is scored so that 1 (**terrible**) indicates "the worst", 4 (**mixed**) indicates "about equally satisfied and dissatisfied", and 7 (**delighted**) indicates "the best." The scale should be administered in full; if a respondent has difficulty understanding the words describing each number on the scale or is unable to read the options, an alternative method for administering the scale is given in Section B of this manual on pg. 105. The **subjective quality of life indicators** generated by the QOLI-Brief Version include: Satisfaction with: Living Situation, Leisure Activities, Family Relations, Social Relations, Finances, Work and School, Legal and Safety, and Health.

Interviewer Training

The QOLI-Brief Version can be administered to persons with severe mental illness by trained lay interviewers. The interviewers do not have to have a background in mental health or have clinical experience. However, the interviewers should be comfortable interviewing persons with mental illness and should have sufficient interpersonal skills to develop a relaxed rapport with respondents.

The trainee interviewer should begin by reading each section of the interview thoroughly together with this manual, and clarifying with the trainer that he or she understands the meaning of each and every question. This includes the Delighted-Terrible Scale fixed interval choices (1-7). At the end of this exercise there should be no ambiguity regarding the interpretation of any questions either in the interview or on the scale.

Once the interviewer is clear about the meaning of all of the questions, he or she should practice reading the instrument aloud so that it flows without hesitancy including the skip pattern sequences.

When the interviewer is clear about the meaning of each question, is comfortable with the flow of the instrument including the skip patterns, and is familiar with the choices on the fixed interval scale he or she should complete five practice interviews. These practice interviews should be conducted with persons with mental illness and each of the interviews should be video-taped. if video-taping is not available then an observer should sit in on each interview and rate the interview independent of the trainee interviewer. The same observer should sit in on all five practice interviews. At the end of each practice interview the observer and the trainee should **not** discuss the ratings nor should any answers be changed.

Each video-taped interview should be viewed and rated by an "expert" rater and by any other interviewers undergoing training. All five practice interview ratings should be compared with the "expert" ratings and with the ratings of the other trainees who scored the video-taped interview. If an observer sits in on the interviews, the ratings of the trainee and the observer should be compared. Once there is a total of 80% agreement on all items between the trainee interviewer and "the expert" across the five practice interviews, the interviewer is ready to conduct interviews in the field. If a trainee interviewer is not at 80% agreement, he or she should continue to make practice tapes until there are 5 tapes that give 80% agreement between the trainee interviewer and the "expert" rater.

Ongoing training should be available for interviewers who administer the QOLI-Brief Version with periodic reviews of interviews by an "expert" rater. Again, these can be conducted by video-taping or by in-person observation. If a trained interviewer falls below 80% agreement, he or she should be taken out of the field until the problem is resolved and he or she is again able to reach a total of 80% agreement across five interviews with an "expert" rater.

Interviewer Setting

The QOLI-Brief Version is best conducted in a private, quiet location. The most important aspect of the setting is that it should allow the respondent to answer each question without fear of being overheard or interrupted. Moreover, the setting should be quiet so that the interviewer and respondent can communicate in normal tones and concentrate on the interview without distraction. Suitable locations include inpatient hospital units, outpatient and satellite clinics, day and vocational programs, and the respondent's home. Respondents can be included in identifying a suitable location once they know the interview needs to be conducted in a private, quiet setting. For homeless respondents this may be a shelter, soup kitchen, a restaurant, or even a quiet park bench.

Informed Consent

We recommend that the interviewer begin each interview by clearly stating his or her name, the organization that the interviewer represents, and the purpose of the session, i.e. to conduct an interview that will take approximately 16 minutes. The interviewer should also confirm the identity of the respondent. Once this initial "set-up" is completed, the interviewer can proceed to the informed consent process. This will vary from study to study; enclosed in Appendix A of this manual is a sample consent form. Most informed consent procedures include information on: the name of the study and the principal investigator, the purpose of the study, the tasks and procedures of the study, the risks and benefits of participating in the study, confidentiality of the information given by the respondent, costs to the respondent of participating in the study, compensation given to the respondent for completing the interview, a right to withdraw statement, an organization statement, and a respondent statement.

When the informed consent procedure is complete, and all the local study site conditions are fulfilled, the interview can begin.

Interview Schedule

1. General Instructions

A. Ask each question as written.

B. Read each question slowly to ensure the respondent (R) fully understands it.

C. All answers are recorded on the right hand margin of the page. Each question should have only one answer unless it specifies "code all that apply." If R is vacillating between two responses, ask him/her to choose one, explaining that you can only code one answer. Make sure when circling an answer that the circle is tight around the number.

EXAMPLE:

Overall, how would you rate your functioning in home, social, school, and work settings at the present time? Would you say your functioning in these areas is excellent, good, fair or poor?

Excellent 1
Good . . . . . (2)
Fair 3
Poor 4
Missing- 5

D. Notes should be recorded in the left hand margin.

E. Fill in open boxes using all spaces. Use lead zeros if necessary.

EXAMPLE:

How many hours a week do you usually work?

# of hours (SPECIFY) 0 2 0
Missing 999

F. With open-ended questions, record R's answer on the SPECIFY line, and leave the codes blank.

EXAMPLE:

What kind of work do you do at the present time?

(SPECIFY BELOW) . . . . . ___ ___
NURSE'S AID_____

_____

G. Interviewer instructions are written in large type and should not be read aloud to R.

EXAMPLE:

IF THE RESPONDENT IS CURRENTLY IN THE HOSPITAL, AND THIS HOSPITALIZATION HAS LASTED FOR LESS THAN 3 MONTHS, LIVING SITUATION = LIVING SITUATION JUST PRIOR TO THE HOSPITALIZATION. IF THE HOSPITALIZATION HAS BEEN FOR 3 MONTHS OR MORE, CODE "HOSPITAL."

H. The time frame used throughout most of the interview is a <year>. It is written this way to indicate that it may be changed depending on individual study sites. For example, you might want to use <past 2 months> or <past 6 months>. In these instances, every time a <year> is written you would substitute <past 2 months> or <past 6 months>.

I. Time frames that are underlined are fixed and should **not** be changed.

EXAMPLE:

Now let's talk about some of the things you did with your time in the <u>past week</u>

J. Throughout the interview, there are no codes for "refused" or "don't know. " Try and encourage R to select an answer from the options given. If R refuses to answer a question or is unable to answer a question, use the missing code, 9. Refrain from giving "missing" as an option from the list of choices.

Section A: General LIfe Satisfaction

This section introduces the Delighted-Terrible Scale and asks R to use the scale to rate his or her overall quality of life.

Begin this section by recording the time in military time.

Normal=	MILITARY		Normal=	MILITARY
AM	12:01 = 00:01	PM	noon =	12:00
	1:00 = 01:00		1:00 =	13:00
	2:00 = 02:00		2:00 =	14:00
	3:00 = 03:00		3:00 =	15:00
	4:00 = 04:00		4:00 =	16:00
	5:00 = 05:00		5:00 =	17:00
	6:00 = 06:00		6:00 =	18:00
	7:00 = 07:00		7:00 =	19:00
	8:00 = 08:00		8:00 =	20:00
	9:00 = 09:00		9:00 =	21:00
	10:00 = 10:00		10:00 =	22:00
	11:00 = 11:00		11:00 =	23:00
			Midnight =	24:00

For this section, and subsequent questions where R is asked to give a subjective quality of life rating, hand the Delighted-Terrible (D/T) Scale to R.

To orient R to the scale, read aloud:

"Please look at this card. This is called the Delighted-Terrible Scale. The scale goes from terrible, which is the lowest ranking of 1, to delighted, which is the highest ranking of 7. There are also points 2 through 6 with descriptions below them."

STOP, read each number and word explanation on the D/T Scale aloud with R. Then continue:

"During the interview we'll be using this scale from time to time to help you tell me how you feel about different things in your life. You can tell me which point on the scale best describes how you feel. For example, if I ask " how do you feel about chocolate ice-cream" and you are someone who loves chocolate ice-cream, you might point to "delighted." On the other hand, if you hate chocolate ice-cream, you might point to "terrible." if you feel about equally satisfied and dissatisfied with chocolate ice cream, you would point to the middle of the scale. Do you have any questions about the scale? Please show me how you feel about chocolate ice-cream."

If R is unable to read, or has obvious difficulty understanding the scale, use the version of the D/T scale with the arrows or the "smiley faces" (a sample of each one is in Appendix B, Section II).

R can point to one of the arrows or faces to give a response.

When you are satisfied that R understands bow to use the scale, ask:

1 *How do you feel about your life in general?*

Code one number (1-7) from the D/T Scale. If R points between the numbers, explain that you can only code a whole number between 1-7.

Section B: Living Situation

This section asks about R's housing situation and neighborhood.

1 *What is your current living situation?*

Have R name the type of living situation and code the type from the list provided, Pay attention to the interviewer instruction which tells you how to code if R is currently in the hospital.

2 *List in order the places you have lived during the past <year>, including hospitalizations, beginning with your current living situation.*

Ask R to list all the places he or she has lived during the past year including stays in the hospital, and code each one using the codes in Q1. Sum to give a total number excluding the hospital stays.

3 *Which of these was your usual residence during the past <year>.*

Code the residence at which R lived the longest in the past year

4 *READ THE INTERVIEWER INSTRUCTIONS SILENTLY.*

Hand R the D/T scale For each question 4A-4C repeat the lead sentence and ask R to pick a number (1-7) from the scale.

EXAMPLE:

"Using the D/T scale, how do you feel about the living arrangements where you live?"

"Using the D/T scale, how do you feel about the privacy you have there?"

Section C: Daily Activities & Functioning

This section asks about activities in the past week and overall level of functioning.

1 *[Questions about R's current living situation].*

Read the lead-in sentences aloud to R and ask "in the past week did you... "for each item IA-1H. Circle as appropriate.

EXAMPLE:

"In the past week did you go for a walk?"

"In the past week did you go shopping?"

2 *Overall, how would you rate your functioning in home, social, school, and work settings at the present time? Would you say your functioning in these areas is excellent, good, fair or poor?*

Circle as appropriate

3 *Now please look at the D-T Scale again. How do you feel about:*

Hand R the D/T scale. For each question 3A-3D ask R "How do you feel about..."

EXAMPLE:

"How do you feel about the way you spend your spare time?"

"How do you feel about the amount of fun you have?"

Section D: Family

This section asks questions about R's relationship with family and relatives.

1 *In the past ‹year›, how often did you talk to a member of your family on the telephone? Would you say at least once a day, at least once a week, at least once a month, less than once a month but at least once during the past ‹year›, or not at all?*

Relatives include blood relations and relatives by marriage for example, husband, wife, children, grandparents, in-laws, grandchildren, cousins and step-relatives.

Circle as appropriate. Skip to next section if 0.

2 *In the past ‹year›, how often did you get together with a member of your family—at least once a day, at least once a week, at least once a month, less than once a month but at least once during the past ‹year›, or not at all?*

Get together means a face-to-face meeting.

Circle as appropriate. Skip to next section if 0.

3 *[Questions about how R feels about his family].*

Hand R the D/T scale. For each question, 3A and 3B, as "How do you feel about…"

Section E: Social Relations

This section asks questions about other people in R's life, that is, friends and acquaintances, **not relatives**.

1 *About how often do you do the following? Would you say at least once a day, once a week, once a month, less than once a month, or not at all?*

Read lead-in question and options to R. Ask each individual item, IA-ID, repeating the options and fill in code

EXAMPLE:

"How often do you visit with someone who does not live with you? Would you say once a day, at least once a week, at least once a month, less than once a month, or not at all."
"How often do you telephone someone who does not live with you? Would you say once a day, at least once a week, at least once a month, less than once a month, or not at all."

2 *[Questions about R's social life].*

Hand R the D/T scale. Ask each item, 2A-2C, using the lead in phrase "How do you feel about..."

Section F: Finances

This section asks R about the amount and source of financial support in the past ‹year›.

1 *In the past ‹year› have you had any financial support from the following sources?*

Read each item IA-IN to R. Circle appropriate code for each item.

IA: Earned income is income from any paid work.

IN. Other source(s) can include income from winnings such as a lottery, income from panhandling, or income from gifts and inheritances.

2 *How much did you receive during the past month from all of these sources?*

Ask R to give you the exact dollar amount of income in the past month rounding up to the nearest dollar. Do not alter this time frame.

EXAMPLE:

$484.85. . . . . 0 4 8 5

3 *On the average, how much money did you have to spend on yourself in the past month, not counting money for room and meals?*

Record all discretionary income and spending or pocket money, excluding money spent on food and accommodation (money spent on accommodation includes money for rent, gas electric, water and sewage, and other standard household bills). Total this amount and record the exact dollar amount rounding up to the nearest dollar.

NOTE INTERVIEWER INSTRUCTION. READ SILENTLY AND CIRCLE APPROPRIATE CODE.

4 *During the past ‹year›, did you generally have enough money each month to cover: (READ OPTIONS A-E)?*

Ask R each item A-E and circle appropriate code. If R is vacillating between No and Yes with "Sometimes ", ask "Overall, did you have enough money to cover the item, " and circle appropriate code, No or Yes.

5 *Questions about R's feelings about his financial situation.*

Hand R the D/T scale. Ask each item, 6A-6C, using the lead in phrase "How do you feel about..."

Section G: Work & School

This section asks about R's employment and school.

1 *Have you worked during the past ‹year›, that is since (DATE)? Are you working now?*

Have R to go back one year from current date and ask R about any work between then and now. If currently working code 1; if not currently working, but has worked in the past ‹year›, code 2. If no work in the past ‹year›, code 0.

2 *What kind of work do you do at the present time?*

Record R's responses, leave the codes blank

EXAMPLE:

(SPECIFY BELOW) . . . . . ____ ____

_____

_____

3 *How many hours a week do you usually work?*

Record total number of hours worked per week; round up to the nearest hour.

4 *How much do you earn per hour/week at this job?*

Pick either earnings per hour or earnings per week and record the amount rounding up to the nearest dollar. Fill in the option not selected with zeros.

5 *[Questions about R's job satisfaction].*

Hand R the D/T scale. For each item, 5A-5C, use the lead in phrase "How do you feel about..."

Section H: Legal & Safety Issues

This section asks R about victimization and involvement with the legal justice system.

1 *In the past ‹year›, were you the victim of*

A. Any violent crimes such as assault rape, mugging or robbery?

Circle as a appropriate.

Repeat "In the past ‹year›, were you the victim of..."

B. Any nonviolent crimes such as burglary, theft of your property or money, or being cheated?

Circle as appropriate

2 *In the past ‹year›, have you been arrested or picked-up for any crimes?*

Fill in the number of arrests. If zero, fill in 00.

3 *[Questions about how R feels about his safety].*

Hand R the D/T scale again. For each item, 3A-3C, use the lead-in sentence "How do you feel about..."

Section I: Health

This section asks about health status.

1 *In general, would you say your health is:*

Read each option aloud to R and circle appropriate code.

2 *[Questions about how R's feels about his health].*

Hand R the D/T scale For each option, 2A and 2C, use the lead-in phrase " How do you feel about...

Section J: Global Rating

This section asks R to give a global rating for life satisfaction.

Hand R the D/T scale.

1 *And a very general question again. Using the D-T Scale again, how do you feel about your life in general?*

Circle appropriate code.

Complete the interview by recording the time in military time.

TELL R THIS IS THE END OF THE INTERVIEW. THANK R FOR COMPLETING IT WITH YOU.

Appendix A

Sample Consent Form Brief Version

QUALITY OF LIFE INTERVIEW PARTICIPANT CONSENT FORM

Principal Investigator: Jane Doe, Ph.D.

Agency for Quality of Life Research

123 Any Street

Anytown, 01234

Tel: (area code) 987-6543

Purpose

The Agency for Quality of Life Research is conducting a study on quality of life.

Procedures/Tasks

If you agree to participate you will be interviewed by a trained interviewer. The interview will last about 45 minutes. The interviewer will ask you questions about your current living situation, your employment and financial circumstances, your daily activities, your relationships with family and friends, your experience of crime and the legal justice system, and your health including your mental health.

Risks

The risks to you are minimal. The only possible risk is that some of the questions asked about your health and life conditions may cause you some temporary anxiety. You can refuse to answer any questions that make you feel uncomfortable.

Benefits

There are no direct benefits to you as a result of participating in this study.

Confidentiality

Your identity and the information you provide will be kept strictly confidential and your answers will never be linked to you in any way. Whether or not you agree to participate in this study, there will be no change in the services you receive or your eligibility for any benefits.

Costs

There are no costs to you for your participation.

Compensation

You will be paid $XX for completion of the interview.

Right To Withdraw

Your participation in these interviews is entirely voluntary; you can withdraw from the interview at any time.

Agency Statement

If you should suffer any physical injury during your participation in this interview, the Agency for Quality of Life Research will provide acute medical treatment and referrals to appropriate medical care facilities. However, The Agency for Quality of Life Research cannot provide any financial compensation due to injury suffered during the interview. Information about this interview can be obtained from:

the Human Volunteers Review Board, The Agency for Quality of Life Research, 123 Any Street, Anytown, 01234 The telephone number is (area code) 987-6543.

Participant Statement

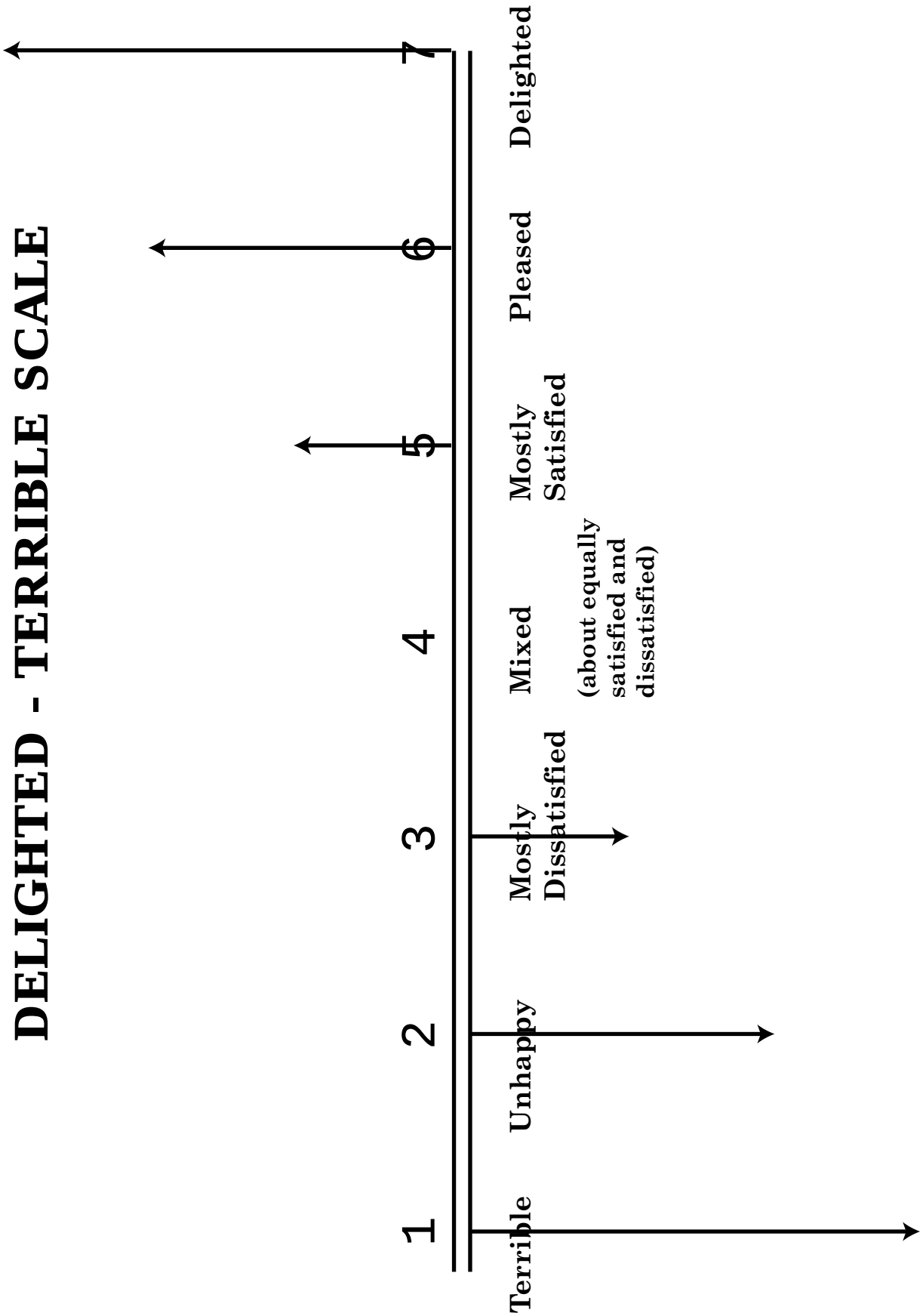
I have been able to ask about this interview and discuss any related issues. I will be given a copy of this consent form.

Signature of Participant	Date
Signature of Witness	Date
Signature of Principal Investigator	Date

Appendix B

D - T SCALE

1
2
3
4
5
6
7
TERRIBLE
UNHAPPY
MOSTLY DISSATISFIED
MIXED
MOSTLY SATISFIED
PLEASED
DELIGHTED


DELIGHTED - TERRIBLE SCALE
1
2
3
4
5
6
7
Terrible
Unhappy
Mostly Dissatisfied
Mixed (about equally satisfied and dissatisfied)
Mostly Satisfied
Pleased
Delighted

Section III

DATA ANALYSIS

Psychometric Properties of the QOLI

Reliability of the Full QOLI

Internal consistency reliability of the Full QOLI was assessed based on a total of 1805 individuals with severe and persistent mental illnesses (*SPMI*) that comprised the samples of four independent studies conducted over the past 13 years (*1, 9, 10, 11*). The pooled sample was composed of 54 percent men, 53 percent Caucasians, 42 percent African-Americans, and 5 percent other (*Hispanic, Asian and Native American*). Number of years of education ranged from 1 to 24 with a mean of 11 (*SD=2.6*).The mean age of the respondents was 36 years (*SD=11.28*). Over half (58.8 percent) had never married; 7.2 percent separated; 14.5 percent widowed; and 8.1 percent married. The diagnoses of the combined samples include 55.2 percent schizophrenia, 28.3 percent major affective disorders, and 16.5 percent other. All subjects met criteria for persistent disability due to a mental disorder.

Cronbach's alpha was computed for each subjective and objective scale. The results are shown in the Table I which indicate that most of the scales had a reliability coefficient that exceeded .80, a highly acceptable level (12). The lowest alpha was .61 which is still above the minimum acceptable level (.50) (13).

Reliability of the Brief QOLI

A preliminary analysis of the internal consistency reliability of the Brief QOLI scales was performed using data obtained from 50 respondents with SPMI who participated in a pilot study conducted in 1994. Results of analysis, parallel to that of the Full QOLI, yielded acceptable to highly acceptable Cronbach's alphas ranging from .56 to .87 (*see Table 1*).

Alternative Form Reliability of the Full & Brief QOLI

Alternative form reliability was evaluated by correlating the scale scores of the Full version with scores on similar scales of the Brief QOLI. Data for this analysis were obtained when both the Full and Brief QOLI where administered to the same respondents (*n=50*) for the pilot study. Table I reveals moderate to high correlation coefficients (*ranging from .64 to .81*) and significant beyond the .001 level.

Discriminant Validity of the Full QOLI

Using existing QOLI data, a simple hypothesis was explored: that the presence of any Axis II disorder impairs QOLI. This hypothesis draws from the DSM concept of an Axix II personality disorder, defined by the DSM as "an enduring pattern of inner experience and behavior that ...leads to distress and impairment". The sparse literature on the relationship of personality and quality of life in the general population supports this notion (*14*). The data set available to us was a sample of 293 psychiatric inpatients who completed, among other measures, the DSM-III SCID-II and the Full QOLI. In this preliminary analysis, we compared respondents who met criteria for any Axis II disorder on the SCID-II (*n=106*) with those who did not (*n=187*) using t-test. The analysis revealed significant differences in both objectiv e and subjective QOLI in the hypothesized direction (*table 2*).

Discriminant validity was further assessed by examining correlations of the QOLI subjective scales and the objective scales which measure divergent constructs. Discriminant validity can be demonstrated when scales that measure different constructs are not too strongly correlated. Data for this analysis were obtained from the same pooled samples (*n=1805*) described above. Table 3 presents correlation coefficients ranging from .11 to .37 which indicate that the Full QOLI has discriminant validity.

Table 1 INTERNAL CONSISTENCY AND ALTERNATE FORM RELIABILITY OF THE FULL AND BRIEF QOLI

	Coefficient Alphas		Full-Brief
Scales	**Full**	**Brief**	**Correlations*** **
Subjective			
Living Situation	.84	.83	.64
Daily Activities	.83	.87	.67
Family Relations	.89	.78	.74
Social Relations	.85	.87	.72
Finances	.89	.81	.66
Safety	.83	.70	.69
Health	.821	.85	.66
Objective			
Daily Activities	.72	.56	.77
Social Contact	.73	.60	.64
Family Contact	.61	.71	.85
Financial Adequacy	.80	.82	.81

[1] Based on a sample of 469 (see Lehman AF: A quality of fife interview for the chronically mentally ill. Evaluation and Program Planning. 1988; 11: 51-62.)

*** $p < .001$

Table 2 MEAN QOL SCORES ACCORDING TO PRESENCE OF A PERSONALITY DISORDER

Domains	No Personality Disorders (n=106)	Personality Disorders (n=187)
Subjective QOL		
Living Situation	5.53	5.05**
Daily Activities	4.96	4.42***
Family Relations	5.10	4.30***
Social Relations	5.31	4.72***
Finances	4.11	3.66*
Safety	5.10	4.33***
Health	5.12	4.72**
Objective QOL		
Daily Activities	0.52	0.47*
Social Contact	3.95	3.80
Family Contact	3.58	3.31*
Financial Adequacy	0.77	0.77
Victimization	0.16	0.25
Arrested	0.24	0.31

*** p <.001
** p <.01
* p<.05

Table 3 CORRELATIONS BETWEEN SUBJECTIVE AND OBJECTIVE SCALES: DISCRIMINANT VALIDITY

Subjective Domains	Objective Domains	Correlations
Satisfaction with:		
Living Satisfaction	Residential Stability	.13*
	Homelessness	.17***
Daily Activities	Number of Daily Activities	.15***
Family Relations	Family Contacts	.30***
Social Relations	Social Contacts	.37***
Finances	Money Spent	.11***
Safety	Victimization	.20***

*** p <.001
** p <.01
* p<.05

Sample Size

In planning a research study using the QOLI, it is necessary to determine the sample size, which is the number of people needed to answer the research question. Having enough cases is important because it affects the ability of the statistical test to detect meaningful or significant differences. The ability to detect such differences is sometimes called **power**. Power can vary from very low to very high and the researcher should determine the desired level of power in designing a research study.

Before discussing the process of sample size determination, some definitions are necessary. First, the "**null hypothesis**" is a statement that there is no statistically significant difference between groups being compared, or that there has been no significant change from baseline to follow-up. In general, researchers are attempting to reject the null hypothesis, that is, to conclude that there is a significant difference between groups or, that there was a significant change over a period of time.

The second term to be explained is "**Type I** error". Type I error (or alpha error) is the probability of erroneously rejecting a true null hypothesis. In other words, it is the likelihood that a researcher claims that there is a significant difference between groups when in fact there is none. The third term to be defined is "Type II error". Type II error is the probability of failing to reject a false null hypothesis. In this case, the researcher mistakenly concludes that there is no significant difference between groups when in fact there is. The fourth term that a researcher should be familiar with is "effect size". Effect size is the degree to which the phenomenon, such as group difference, exists.

When a small sample size is used in a study, the likelihood of committing a Type II error is greater than the probability of committing a Type I error. This means that a researcher is more likely to arrive at the erroneous conclusion that no significant difference between groups exists when there truly is a significant difference, or that no significant change has occurred when in fact it has occurred. Thus, a significant treatment effect may not be detected due to inadequate sample size. To minimize this type of error and increase the sensitivity of an experiment, appropriate numbers of subjects should be used.

When the researcher has formulated the null hypothesis based on the specific objective of the study, selection of the analytic technique appropriate for testing the hypothesis has to be made. At this point, it is instructive to decide on the power, the risk of a Type I error, and effect size (which may be small, medium, large, or somewhere in between any two sizes) to determine the sample size requirement. We recommend consultation with a statistician at this stage.

Since the most common objective of previous research using the QOLI had been comparison of two or more groups (*see Analysis Plan for QOLI Data*), we present the sample sizes needed to achieve this objective in Tables 4 and 5 (*which we obtained from Cohen's tables*) (*15*). Table 4 is based on the assumptions that the desired power = .80 and alpha (*one-tailed test*) = .05; for Table 5, power = .80 and alpha (*one-tailed test*) = .01. The numbers provided under each effect size are numbers of cases needed for **each** group in the comparison. We provide sample sizes for what Cohen described as "small", medium", and "large" effect sizes. To illustrate the use of the tables, suppose a researcher would like to test the hypothesis that persons with mental illness living at a supervised community residence will have better quality of life than patients in a state hospital. Further, the researcher desires a power = .80 that can detect a medium effect size and risks a Type I error (*alpha*) = .05. 'what sample size is needed? Looking at Table 4, under medium effect size, for 2 groups, the required sample size is 64 cases per group.

Table 4 Analysis of Variance Power Analysis for Between Group Comparisons Under the Following Assumptions: Type I error (alpha)=.05, Power=.80.

	Effect Size [1]		
Number of Groups	**Small (.10)**	**Medium (.25)**	**Large (.40)**
2	393	64	26
3	322	52	21
4	274	45	18
5	240	39	16
6	215	35	14
7	195	32	13

[1] Effect size (f) = (standard deviation of the population means) / (common standard deviation of the populations involved)

Table 5 Analysis of Variance Power Analysis for Between Group Comparisons Under the Following Assumptions: Type I error (alpha)=.01, Power=.80.

	Effect Size [1]		
Number of Groups	**Small (.10)**	**Medium (.25)**	**Large (.40)**
2	586	95	38
3	464	76	30
4	388	63	25
5	336	55	22
6	299	49	20
7	271	44	18

[1] Effect size (f) = (standard deviation of the population means)/(common standard deviation of the populations involved)

Analysis Plan for QOLI Data

Analysis of data from the QOLI is undertaken in three steps: (1) Coding and data entry, (2) Computing QOLI scales, and (3) Conducting analyses. These steps are discussed in this section.

Coding and Data Entry

Before data are entered onto computer disks (*or tapes*), respondents' answers to the items in the QOLI should be translated into numeric codes. Codebooks have been prepared for both the full and brief versions of the QOLI which show the variable name or label, variable description, and range of values possible for each item (*see Appendix A, Section III*). Data entry can be performed by direct entry to computer disk or tape or optical scanning.

Computing QOLI Scales

All QOLI scales are derived by computing the mean of the scale items. A scale is scored if at least 60 percent of the items in the scale have a response. A summary of these scales and the items measuring each scale are shown in the tables below.

Quality of Life Scales from the Full QOLI

SUBJECTIVE

Scale	Items
GENERAL LIFE SATISFACTION	B1, K1
SATISFACTION WITH LIVING SITUATION	C7A-C7F
SATISFACTION WITH DAILY ACTIVITIES	D3A-D3F
SATISFACTION WITH FAMILY	E3A-3ED
SATISFACTION WITH SOCIAL RELATIONS	F2A-F2F
FINANCIAL SATISFACTION	G6A-G6D
SATISFACTION WITH JOB	H17A-H17E
SATISFACTION WITH SCHOOL	H22A-H22C
SATISFACTION WITH SAFETY	I4A-I4E
SATISFACTION WITH HEALTH	J3A-J3F

Quality of Life Scales from the Full QOLI

OBJECTIVE

Scale	Items
DAILY ACTIVITIES	D1A-D1P
FAMILY CONTACT	E1, E2
SOCIAL CONTACT	F1A-F1F
FINANCIAL ADEQUACY	G5A-G5F
AMOUNT OF MONEY SPENT ON SELF PER MONTH	G2C
CURRENLTY EMPLOYED	H2
VICTIMIZATION	11A, 11B
BEEN ARRESTED	I2

Quality of Life Scales from the Brief QOLI

SUBJECTIVE

Scale	Items
GENERAL LIFE SATISFACTION	A1, J1
SATISFACTION WITH LIVING SITUATION	B4A-B4C
SATISFACTION WITH DAILY ACTIVITIES	C3A-C3D
SATISFACTION WITH FAMILY CONTACT	D3A, D3B
SATISFACTION WITH SOCIAL RELATIONS	E2A-E2C
SATISFACTION WITH FINANCES	F5A-F5C
JOB SATISFACTION	G5A-G5C
SATISFACTION WITH SAFETY	H3A-H3C
SATISFACTION WITH HEALTH	I2A-I2C

Quality of Life Scales from the Brief QOLI

OBJECTIVE

Scale	Items
DAILY ACTIVITIES	C1A-C1H
FAMILY CONTACT	D1, D2
SOCIAL CONTACT	E1A-E1D
FINANCIAL ADEQUACY	F4A-F4E
AMOUNT OF MONEY SPENT ON SELF PER MONTH	F3
CURRENLTY EMPLOYED	G1
VICTIMIZATION	H1A, H1B
BEEN ARRESTED	H2

Computation of data from QOLI can be conducted using available computer software for statistical analysis, such as SAS, SPSS, and the BMDP. To facilitate data analysis, we have prepared four programs: two in SPSS and two in SAS, which are found in Appendix B, Section III (these programs are also available on disk). There are two separate programs for each test version using each software. The programs read the data, compute the QOL scale scores for each respondent, and convert the raw data (*coded responses*) file into a permanent SAS file (*or SPSS system file*). Researchers can use these files in writing programs for conducting statistical analyses using the QOL scale scores with ease.

Conducting Analyses

The QOLI offers an extensive amount of information about a person's quality of life. One of the challenges of such a data set is data analysis which is both meaningful and concise. This section discusses the objectives that the QOLI addresses and illustrates recommended analytic techniques to achieve these goals.

OBJECTIVE 1: To describe the QOL experiences of a group

Several studies have used the various subjective and objective indicators to describe the quality of life circumstances of a given group of people; for example, the living arrangements, employment status, frequency of family contacts as well as the proportion of persons who are at least mostly satisfied with these experiences (*1*).

OBJECTIVE 2: To compare the QOL of two groups

Comparative analysis of the QOL of persons with severe and persistent illnesses has been applied in previous research. This approach has been undertaken to assess differences by gender, age, race (*16*), and treatment settings (*17*).

To illustrate an example of how to analyze data to compare the QOL of two groups, community residents and state hospital patients were compared on subjective and objective QOL scales using two different analytical techniques. In the first analysis, t-test for independent means was applied on each of the QOL scales to determine whether significant differences existed between the two groups on the QOL measures. Such comparison was performed without controlling for possible confounding factors such as demographic and clinical variables. Results of t-tests are summarized in table 6, which indicate that the two groups differed significantly on all subjective QOL domains except family relations. Compared to state hospital patients, community residents had significantly greater satisfaction with living situation, social relations, finances, daily activities, safety, health, and life in general. Further, the two groups of respondents differed significantly on four objective QOL scales (*money spent on self, having been arrested, victimization, and daily activities*), in favor of community residents. This approach can be expanded into more than 2 groups by applying analysis of variance (*ANOVA*) which is discussed later.

In the second analytic method, analysis of covariance (*ANCOVA*) was performed on each scale. in ANCOVA, variables that are likely to affect the results are partialled out or treated as covariates. In this example, respondents' demographic characteristics (*race, gender, marital status, age, and education*), and clinical status (*diagnosis*) were used as covariates. Results show the QOL scale mean scores adjusted for differences in the covariates (*table 7*). Some differences between the results of this analysis and those of t-test were noted. For instance, the difference between the two groups of respondents on satisfaction with finances was significant ($p<05$) based on t-test; based on ANCOVA, the difference did not reach statistical significance. The same pattern was observed on satisfaction with health. ANCOVA can also be applied when the comparison involves more than two groups.

OBJECTIVE 3: To compare the QOL of a group at different time points

One of the primary objectives that the QOLI addresses is to evaluate changes in the quality of life of individuals over a period of time. To achieve this objective, QOL data are obtained from the subjects before (*pre-test*) and after (*post-test*) exposure to the intervention. Then pre-test (*or baseline*) scores are compared to the post-test (*follow-up*) scores using t-test for paired means or one-factor ANOVA with repeated measures. Both statistical techniques yield the same results. Table 8 shows the results of applying one-factor ANOVA with repeated measures on each QOLI scale. The F-values indicate the significance of within subjects factor or the difference between time points. Using the same set of data, we applied t-test for paired means and the same results were obtained.

OBJECTIVE 4:. To compare the changes on QOL of two groups

This is usually the objective of a study when a group of subjects who had been exposed to a certain treatment is compared with a comparison group that did not receive the treatment. Results of such comparisons are more

interpretable since differences can be attributed to the intervention with higher confidence, than are those obtained from a one-group design discussed above. Comparing QOL changes between two groups is also appropriate when assessing effectiveness of a program implemented in two sites. To illustrate this problem, QOL data from two cities were obtained at two time points (*baseline and 10 months later*) during the implementation of the Robert Wood Johnson Foundation program designed for individuals with severe mental illnesses (*11*). The analytic method involved calculation of change scores between the two time points for each subject. Then ANOVA with a single factor was applied on the change scores. Results are shown in table 9 which indicate significant differences between the two cities on changes in general life satisfaction, satisfaction with finances, proportion employed, proportion arrested, and level of functioning.

The simplicity of ANOVA as an analytic technique to achieve the objective is attractive but it has certain limitations. One of the limitations has been discussed above: it does not control for extraneous factors that might have influenced the between-group difference on the change scores. Thus, we recommend ANCOVA, which we applied on the same set of data, but this time partialling out demographic factors and diagnosis. ANCOVA yielded slightly different results from those obtained by applying ANOVA (see table 10).

Table 6 Comparison of Two Groups of Patients on Quality of Life Indicators Without Controlling for Any Covariate

Quality of Life Scales	Community Residents (n=92)	State Hospital Patients (n=97)	t-value
Subjective Satisfaction with:			
General Life	5.01	4.19	3.65**
Living Situation	5.08	3.46	8.50**
Social Relations	4.97	4.51	3.61**
Finances	4.37	3.89	2.16*
Daily Activities	5.08	4.39	3.95***
Family Relations	5.33	5.07	1.07
Safety	5.20	4.17	4.68***
Health	4.50	4.06	2.41*
Objective			
Family Contact	2.80	2.93	-0.798
Social Contact	2.42	2.30	0.89
Current Employment	0.25	0.29	-0.66
Money Spent	78.74	40.92	4.71***
Arrest	0.02	0.14	-3.06**
Victimization	.21	0.46	-3.73
Daily Activities	.63	0.56	2.50*

***p<.001 ** p<.01 * p<.05

Table 7 Comparison of Two Groups of Patients on Quality of Life Indicators Controlling for Covariates

Quality of Life Scales	Community Residents (n=92)	State Hospital Patients (n=97)	t-value
Subjective Satisfaction with:			
General Life	5.01	4.20	11.29***
Living Situation	5.00	3.39	63.80***
Social Relations	5.08	4.62	6.76*
Finances	4.98	4.52	2.92
Daily Activities	5.05	4.34	12.85***
Family Relations	5.33	5.00	1.73
Safety	5.25	4.20	16.67***
Health	4.48	4.13	2.06
Objective			
Family Contact	2.93	2.88	0.12
Social Contact	2.39	2.14	1.57
Current Employment	0.18	0.21	0.11
Money Spent	84.42	46.17	21.07***
Arrest	0.03	0.14	6.93***
Victimization	0.25	0.47	10.26**
Daily Activities	0.69	0.60	9.33**

***p<.001 ** p<.01* p<.05

Table 8 Comparison of Baseline and Follow-up Quality of life of Patients with Severe and Persistent Mental Illnesses Without Controlling for Any Covariate

Quality of Life Scales	Baseline	Two-month Follow-up	F-value	df
Subjective Satisfaction with:				
General Life	4.47	4.59	2.68	1,581
Living Situation	4.92	5.09	5.36*	1,469
Social Relations	4.82	4.78	<1	1,557
Finances	3.61	3.75	4.18*	1,575
Daily Activities	4.51	4.64	6.55*	1,572
Family Relations	4.49	4.71	11.54***	1,566
Safety	4.64	4.71	1.22	1,568
Objective				
Family Contact	3.63	3.63	<1	1,591
Social Contact	2.67	2.67	<1	1,577
Employment	0.20	0.13	12.93***	1,597
Money Spent	82.82	86.13	<1	1,577
Arrest	0.35	0.09	100.51***	1,598
Victimization	0.29	0.13	65.95***	1,596
Daily Activities	0.46	0.48	4.13*	1,591
Functioning	2.60	2.41	14.42***	1,577
Financial Adequacy	2.36	2.48	19.24***	1,591

***p<.001 ** p<.01* p<.05

Table 9 Comparison of Two Cities on Change Scores Between Baseline and Follow-up in Quality of Life of Patients with Severe and Persistent Mental Illnesses Without Controlling for Any Covariate

	Change Scores Between Baseline and 10 month follow up		
Quality of Life Scales	**City A (n=132)**	**City B (n=117)**	**F-value**
Subjective Satisfaction with:			
General Life	-.22	.28	6.10*
Living Situation	.06	.08	<1
Social Relations	.01	.14	<1
Finances	-.11	.40	5.81*
Daily Activities	.00	.15	<1
Family Relations	.01	.08	<1
Safety	.05	.12	<1
Objective			
Family Contact	-.14	-.05	<1
Social Contact	.18	.07	<1
Employment	.03	.06	5.29*
Money Spent	-14.9	27.4	<1
Arrest	.17	.00	10.96**
Victimization	-.02	.03	<1
Daily Activities	-.02	.00	<1
Functioning	.19	-.13	5.96*
Financial Adequacy	.07	.08	<1

***p<.001 ** p<.01* p<.05

Table 10 Comparison of Two Cities on Change Scores Between Baseline and Follow-up in Quality of Life of Patients with Severe and Persistent Mental Illnesses Controlling for Covariates

	Adjusted Change Scores Between Baseline and 10 month follow up		
Quality of Life Scales	**City A (n=132)**	**City B (n=117)**	**F-value**
Subjective Satisfaction with:			
General Life	-.17	.25	3.65
Living Situation	.07	.12	<1
Social Relations	.02	.13	<1
Finances	-.10	.40	4.60*
Daily Activities	.05	.11	<1
Family Relations	-.01	-.03	<1
Safety	.09	.12	<1
Objective			
Family Contact	-.17	.01	1.17
Social Contact	.18	.08	<1
Employment	.04	.16	4.16*
Money Spent	-10.28	18.17	1.97
Arrest	.15	.02	5.59*
Victimization	-.02	.05	1.61
Daily Activities	-.01	.01	<1
Functioning	.15	-.09	2.86
Financial Adequacy	.08	.07	<1

* $p<.05$

Appendix A

CODE BOOKS

Quality Of Life Interview

CODEBOOK *FULL VERSION*

V1TimeB1:V2TimeB2

Time Began (military time): ___ ___ : ___ ___

Section A: Demographics

First, I'm going to ask you a few background questions,

V3: QOLA1

1 *Sex of Respondent (CODE BY OBSERVATION):*

Male 1

Female 2

V4:QOLA2a/
V5: QOLA2B/
V6: QOLA2C

2 *What is your date of birth?*

__/__/__

mm dd yy

V7: QOLA3

3 *How old are you?*

Age (SPECIFY) . . . . . ___ ___

Missing 99

V8: QOLA4

4 *What is your marital status?*

Married 1

Separated 2

Divorced 3

Widowed 4

Never married 5

Co-habitating 6

Missing 9

V9: QOLA5a

5a *How many children do you have?*

No. of children (SPECIFY) . . . . . ___ ___

None 00

Missing 99

V9: QOLA5b

5b *How many of your children are under 18 years of age?*

# of children . . . . . ___ ___

V11: QOLA6

6 *What is the highest grade in school or year of college you have completed?*

Grade (IF 12 OR MORE GO TO Q. 8) . . . . . ___ ___

None 00

Missing 99

V12: QOLA7

7 *Did you pass a high school equivalency test?*

No. 0

Yes 1

Missing 9

V13: QOLA8

8 *Do you have a college degree?*

No (GO TO Q. 10) 0

Yes 1

Missing 9

V14: QOLA9

9 *What degree is that?*

Associate 1

Bachelors 2

Masters 3

Doctorate 4

Other (SPECIFY BELOW). 5

_____

V15: QOLA10

10 *Do you have any other training?*

No (GO TO Q. 12) 0

Yes 1

Missing (GO TO Q. 12) 9

V16: QOLA11

11 *What kind of training? (SPECIFY BELOW)* ___ ___

_____

_____

_____

V17: QOLA12

12 *Which of the following best describes your race?*

Caucasian (not Hispanic) 1
African-American (not Hispanic) 2
Hispanic 3
American Indian 4
Asian. 5
Other (SPECIFY BELOW). 6

_____

Missing 9

V18: QOLA13

13 *Did you ever serve in the Armed Forces of the United States?*

No (GO TO NEXT SECTION) 0
Yes 1
Missing (GO TO NEXT SECTION) 9

V19: QOLA14

14 *What branch of the Armed Forces?*

Army. 1
Navy 2
Marines. 3

V20: QOLA15

15 *What type of discharge did you receive when you left the armed forces?*

Honorable 1
General 2
Undesirable 3
Bad conduct 4
Dishonorable or dismissal 5
Other 6

Section B: General Life Satisfaction

Please look at this card. (HAND SUBJECT' THE DELIGHTED-TERRIBLE SCALE). This is called the Delighted-Terrible Scale (D/T Scale).

The scale goes from **terrible**, which is the lowest ranking of **1**, to **delighted**, which is the highest ranking of **7**. There are also points 2 through 6 with descriptions below them. (READ POINTS ON THE SCALE).

During the interview we'll be using this scale from time to time to help you tell me how you feel about different things in your life. All you have to do is tell me what on the scale best describes how you feel. For example, if I ask "how do you feel about chocolate ice cream" and you are someone who loves chocolate ice cream, you might point to "delighted." On the other hand, if you hate chocolate ice cream, you might point to "terrible." If you feel about equally satisfied and dissatisfied with chocolate ice cream, then you would point to the middle of the scale.

Do you have any questions about the scale? Please show me how you feel about chocolate ice cream. Let's begin.

The first question is a very general one.

V21: QOLB1

1 *How do you feel about your life in general?*

D-T Scale . . . . . _____

Missing 9

Now, set the scale aside. I'll let you know when we need it again.

Section C: Living Situation

Now I am going to ask you some questions about your living situation.

V22: QOLC1

1 *What is your <u>current</u> living situation?*

(USE CODES BELOW) . . . . . ___ ___

(IF RESPONDENT IS CURRENTLY IN THE HOSPITAL, AND THIS HOSPITALIZATION HAS LASTED LESS THAN 3 MONTHS, LIVING SITUATION = LIVING SITUATION JUST PRIOR TO THE HOSPITALIZATION. IF THE HOSPITALIZATION HAS BEEN FOR 3 MONTHS OR MORE, CODE "HOSPITAL").

01 Hospital

02 Skilled nursing facility:24 hour nursing service

03 Intermediate care facility:less than 24 hour nursing facility

04 Supervised group living:(generally long term)

05 Transitional group home:(halfway or quarterwayhouse)

06 Family foster care

07 Cooperative apartment,supervised (staff on premises)

08 Cooperative apartment, unsupervised (staff not on premises)

09 Board and care home: (private proprietary home for adults, with program and supervision)

10 Boarding house:(includes meals, no program or supervision)

11 Rooming or boardinghouseor hotel: (includes single room occupancy, no meals are provided, cooking facilities may be available)

12 Private house or apartment

13 Shelter

14 Jail

15 No current residence(including the streets, bus stations, missions, etc.)

16 Other:
_____
_____
_____

99 No information

V23: QOLC2

2 *Have you lived any place else during the past <year>? (including hospital)*

No (GO TO Q. 5) 0

Yes (GO TO Q. 3) 1

Missing (GO TO Q. 5) 9

3 *List in order the places you have lived during the past ‹year›, including hospitalizations, beginning with your current living situation. (USE CODES NEXT PAGE)*

	CODE	DESCRIPTION
V24: QOLC3a	a	
V25: QOLC3b	b	
V26: QOLC3c	c	
V27: QOLC3d	d	
V28: QOLC3e	e	
V29: QOLC3f	f	
V30: QOLC3g	g	
V31: QOLC3h	h	

01 Hospital

02 Skilled nursing facility:24 hour nursing service

03 Intermediate care facility:less than 24 hour nursing facility

04 Supervised group living:(generally long term)

05 Transitional group home:(halfway or quarterwayhouse)

06 Family foster care

07 Cooperative apartment,supervised (staff on premises)

08 Cooperative apartment, unsupervised (staff not on premises)

09 Board and care home: (private proprietary home for adults, with program and supervision)

10 Boarding house:(includes meals, no program or supervision)

11 Rooming or boardinghouseor hotel: (includes single room occupancy, no meals are provided, cooking facilities may be available)

12 Private house or apartment

13 Shelter

14 Jail

15 No current residence(including the streets, bus stations, missions, etc.)

16 Other:
_____
_____
_____

99 No information

V32: QOLC3i Total number of different, non-hospital residences, during past ‹year›?

(SPECIFY) . . . . . ___ ___

V33: QOLC4 4 *Which of these was your usual residence during the past ‹year›?*

(SPECIFY USING CODES BELOW) . . . . . ___ ___

5 *During the past ‹year› did you sleep in any of the following locations?*

		NO	YES	MISS
V34: QOLC5a	A. Outside without shelter	0	1	9
V35: QOLC5b	B. Inside an empty building	0	1	9
V36: QOLC5c	C. In a public shelter	0	1	9
V37: QOLC5d	D. In a church/mission	0	1	9

V38: QOLC6

6 *Do you <u>currently</u> have a regular place to live where you spend at least 5 out of 7 nights on the average?*

No. 0

Yes 1

Missing 9

7 *Now look at the D-T scale again and answer the following: (HAND RESPONDENT THE D-T SCALE. IF RESPONDENT IS CURRENTLY IN THE HOSPITAL FOR LESS THAN 3 MONTHS, USE MOST RECENT RESIDENCE PRIOR TO HOSPITALIZATION. IF RESPONDENT IS IN THE HOSPITAL 3 MONTHS OR MORE, USE HOSPITAL AS THE RESIDENCE. SKIP IF HOMELESS).*

How do you feel about:

V39: QOLC7a A. The living arrangements where you live? . . . . . ____

V40: QOLC7b B. The food there? . . . . . ____

V41: QOLC7c C. The rules there? . . . . . ____

V42: QOLC7d D. The privacy you have there? . . . . . ____

V43: QOLC7e E. The amount of freedom you have? . . . . . ____

V44: QOLC7f F. The prospect of staying on where you currently five for a long period of time? . . . . . ____

8 *Still using the D-T Scale, answer the following:*
(IF RESPONDENT IS IN THE HOSPITAL FOR LESS THAN 3 MONTHS, USE MOST RECENT RESIDENCE PRIOR TO HOSPITALIZATION.
IF RESPONDENT IS IN THE HOSPITAL 3 MONTHS OR MORE, USE HOSPITAL AS THE RESIDENCE. SKIP IF HOMELESS).

How do you feel about:

V45: QOLC8a A. The people who live in the houses and apartments near yours? . . . . . ____

V46: QOLC8b B. People who live in this community? . . . . . ____

V47: QOLC8c C. The outdoor space there is for you to use outside your home? . . . . . ____

V48: QOLC8d D. The particular neighborhood as a place to live?. . . . . ____

V49: QOLC8e E. This community as a place to live? . . . . . ____

V50: QOLC8f F. How safe you feel in this neighborhood? . . . . . ____

Section D: Daily Activities & Functioning

1 *Now let's talk about some of the things you did with your time in the past week. I'm going to read you a list of things people may do with their free time. For each of these, please tell me if you did it during the past week. Did you...*
(READ OPTIONS A-P)?

			NO	YES	MISS
V51: QOLD1a	A.	Go for a walk?r	0	1	9
V52: QOLD1b	B.	Go to a movie or play?	0	1	9
V53: QOLD1c	C.	Watch television?	0	1	9
V54: QOLD1d	D.	Go shopping?	0	1	9
V55: QOLD1e	E.	Go to a restaurant or coffee shop?	0	1	9
V56: QOLD1f	F.	Go to a bar?	0	1	9
V57: QOLD1g	G.	Read a book, magazine or newspaper?	0	1	9
V58: QOLD1h	H.	Listen to a radio?	0	1	9
V59: QOLD1i	1.	Play cards?	0	1	9
V60: QOLD1j	J.	Go for a ride in a bus or car?	0	1	9
V61: QOLD1k	K.	Prepare a meal?	0	1	9
V62: QOLD1l	L.	Work on a hobby?	0	1	9
V63: QOLD1m	M.	Play a sport?	0	1	9
V64: QOLD1n	N.	Go to a meeting of some organization or social group? (INCLUDE PROGRAM-RELATED MEETINGS)	0	1	9
V65: QOLD1o	0.	Go to a park?	0	1	9
V66: QOLD1p	P.	Go to a library?	0	1	9

V67: QOLD2

2 *Overall, how would you rate your functioning in home, social, school, and work settings at the present time? Would you say your functioning in these areas is excellent, good, fair or poor?*

Excellent 1

Good 2

Fair 3

Poor 4

Missing 9

3 *Now please look at the D-T Scale again. How do you feel about (READ OPTIONS A-F)?*

A. The way you spend your spare time? . . . . . ____

B. The amount of time
you have to do the things you want to do? . . . . . ____

C. The chance you have
to enjoy pleasant or beautiful things? . . . . . ____

D. The amount of fun you have? . . . . . ____

E. The amount of relaxation in your life? . . . . . ____

F. The pleasure you get from the television or radio?. . . . . ____

Section E: Family

The next few questions are about your relationship with your family including any relatives with whom you live.

V74: QOLE1

1 *In the past ‹year›, how often did you talk to a member of your family on the telephone? Would you say at least once a day, at least once a week, at least once a month, less than once a month but at least once during the past ‹year›, or not at all?*

At least once a day 5

At least once a week 4

At least once a month 3

Less than once a month 2

Not at all 1

No family (GO TO SECTION F) 0

Missing 9

V75: QOLE2

2 *In the past ‹year›, how often did you get together with a member of your family—at least once a day, at least once a week, at least once a month, less than once a month but at least once during the ‹year›, or not at all?*

At least once a day 5

At least once a week 4

At least once a month 3

Less than once a month 2

Not at all 1

No family (GO TO SECTION F) 0

Missing 9

3 *Please look at the D-T Scale again. How do you feel about (READ OPTIONS A-D)?*

V76: QOLE3a

A. Your family in general? . . . . . ____

V77: QOLE3b

B. How often you have contact with your family? . . . . . ____

V78: QOLE3c

C. The way you and your family act toward each other? . . . . . ____

V79: QOLE3d

D. The way things are in general between you and your family? . . . . . ____

Section F: Social Relations

Now I'd like to know about other people in your life, that is, people who are not in your family.

1 *About how often do you do the following? Would you say, at least once a day, once a week, once a month, less than once a month or not at all?*

V80: QOLF1a

A. Do things with a close friend?

At least once a day 5
At least once a week 4
At least once a month 3
Less than once a month. 2
Not at all 1
Missing 9

V81: QOLF1b

B. Visit with someone who does not live with you?

At least once a day 5
At least once a week 4
At least once a month 3
Less than once a month. 2
Not at all 1
Missing 9

V82: QOLF1c

C. Telephone someone who does not live with you?

At least once a day 5
At least once a week 4
At least once a month 3
Less than once a month. 2
Not at all 1
Missing 9

V83: QOLF1d

D. Write a letter to someone?

At least once a day 5
At least once a week 4
At least once a month 3
Less than once a month. 2
Not at all 1
Missing 9

V84: QOLF1e

E. Do something with another person that you planned ahead of time?

At least once a day 5
At least once a week 4
At least once a month 3
Less than once a month. 2
Not at all 1
Missing 9

V85: QOLF1f

F. Spend time with someone you consider more than a friend, like a spouse, boyfriend or girlfriend?

At least once a day 5
At least once a week 4
At least once a month 3
Less than once a month. 2
Not at all 1
Missing 9

2 *Please look at the D-T Scale again. How do you feel about:*

V86: QOLF2a A. The things you do with other people? . . . . . ____

V87: QOLF2b B. The amount of time you spend with other people? . . . . . ____

V88: QOLF2c C. The people you see socially?. . . . . ____

V89: QOLF2d D. How you get along with other people in general? . . . . . ____

V90: QOLF2e E. The chance you have to know people with whom you really feel comfortable? . . . . . ____

V91: QOLF2f F. The amount of friendship in your life? . . . . . ____

Section G: Finances

A few questions about money.

1 *In the past <year> have you had any financial support from the following sources?*

			NO	YES	MISS
V92: QOLG1a	A.	Earned Incomer	0	1	9
V93: QOLG1b	B.	Social Security Benefits (SSA)	0	1	9
V94: QOLG1c	C.	Social Security Disability Income (SSDI)	0	1	9
V95: QOLG1d	D.	Supplemental Security Income (SSI)	0	1	9
V96: QOLG1e	E.	Armed Service connected disability payments	0	1	9
V97: QOLG1f	F.	Other Social Welfare benefits–state or county (general welfare, Aid to Families with DependentChildren (AFDC))	0	1	9
V98: QOLG1g	G.	Vocational program (Comprehensive Employment and Training Act (CETA), Vocational Rehabilitation, sheltered workshop)	0	1	9
V99: QOLG1h	H.	Unemployment compensation	0	1	9
V100: QOLG1i	1.	Retirement, investment or savings income	0	1	9
V101: QOLG1j	J.	Rent supplements (including HUD, Section 8 certificates, living programs receiving public assistance support)	0	1	9
V102: QOLG1k	K	Alimony and child support	0	1	9
V103: QOLG1l	L.	Food stamps	0	1	9
V104: QOLG1m	M.	Family and/or spouse contribution	0	1	9
V105: QOLG1n	N.	Other source(s) (SPECIFY BELOW)	0	1	9

V106: QOLG2

2 *How much money did you receive during the <u>past month</u> from all of these sources?*

(SPECIFY) . . . . . $___ ___ ___ ___

Missing 9999

V107: QOLG2a

2a *Was this a usual <u>month</u> in terms of the amount of money you received?*

Yes (GO TO Q. 3) 1

No (GO TO Q. 2B) 0

Missing (GO TO Q. 2B) 9

V108: QOLG2b

2b *Would you say that the amount of money you received during the past month was more than or less than usual?*

More than usual 1

Less than usual 2

Missing 9

V109: QOLG2c

2c *How much would you say that you have usually received per month during the past year?*

(SPECIFY) . . . . . $__ __ __ __

Missing 9999

V110: QOLG3

3 *On the average, how much money did you have to spend on yourself in the past month, not counting money for room and meals?*

(SPECIFY) . . . . . $__ __ __ __

Missing 9999

INTERVIEWER RATING:

HOW RELIABLE DO YOU THINK R'S RESPONSES WERE TO Q1:

VERY RELIABLE 4

GENERALLY RELIABLE 3

GENERALLY UNRELIABLE 2

VERY UNRELIABLE 1

V112: QOLG4

4 *Is there anyone who handles your money for you?*

No (GO TO Q. 5) 0

Yes 1

V113: QOLG4a

A. Are your checks mailed directly to this person?

No 0

Yes 1

5 *During the past ‹year›, did you generally have enough money each month to cover (READ OPTIONS A-F) ?*

			NO	YES	MISS
V114: QOLG5a	A.	Food?	0	1	9
V115: QOLG5b	B.	Clothing?	0	1	9
V116: QOLG5c	C.	Housing?	0	1	9
V117: QOLG5d	D.	Medical Care?	0	1	9
V118: QOLG5e	E.	Traveling around the city for things like shopping, medical appointments, or visiting friends and relatives?	0	1	9
V119: QOLG5f	F.	Social activities like movies or eating in restaurants?	0	1	9

6 *Now, I'd like you to use the D-T Scale again. In general, how do you feel about: (READ OPTIONS A-D) ?*

V120: QOLG6a A. The amount of money you get? . . . . . ____

V121: QOLG6b B. The amount of money you have to cover basic necessities such as food, housing, and clothes? . . . . . ____

V122: QOLG6c C. How comfortable and well-off you are financially? . . . . . ____

V123: QOLG6d D. The amount of money you have available to spend for fun? . . . . . ____

Section H: Work & School

V124: QOLH1

1 *During a usual week, what do you do most of the time?*

Work at a job for pay (GO TO Q. 3) 1

Go to a structured day program 2

Go to school 3

Do volunteer work. 4

Keep house 5

Nothing much
(e.g., drink coffee, smoke cigarettes, watch TV) 6

Something else (SPECIFY BELOW) 7

_____

Missing 9

V125: QOLH2

2 *Are you currently working in a job for pay?*

No (GO TO Q. 11) 0

Yes 1

Missing 9

V126: QOLH3

3 *I'd like to know about the job you have now. What kind of business or industry do you work in? (IF MORE THAN ONE JOB, USE THE JOB AT WHICH THE PERSON EARNS THE HIGHER WEEKLY SALARY)*

(DESCRIBE BELOW) . . . . . ___ ___

_____

_____

_____

V127: QOLH3a

A. What kind of work do you do?

(SPECIFY BELOW) . . . . . ___ ___

_____

_____

_____

V128: QOLH3b

B. What are your most important activities or duties?

(SPECIFY BELOW) . . . . . ___ ___

_____

_____

_____

V129: QOLH4

4 *How long have you been working at this job?*

# of months . . . . . ___ ___

Less than one month 995

Less than one week 996

Missing 999

V130: QOLH5

5 *Is this job in a sheltered workshop?*

No. 0

Yes 1

Missing 9

V131: QOLH6

6 *Do you have a special supervisor or a job coach?*

No. 0

Yes 1

Missing 9

V132: QOLH7

7 *Is this a job you can keep as long as you wish?*

No. 0

Yes (GO TO Q. 9) 1

Missing 9

V133: QOLH8

8 *Is this a job that ends after a certain period of time when you are expected to find another job at another place of work?*

No. 0

Yes 1

Missing 9

V134: QOLH9

9 *How many hours a week do you usually work?*

# of hours (SPECIFY) . . . . . ___ ___ ___

Missing 999

10 *How much do you earn per hour/week at this job (CHOOSE ONE)*

V135: QOLH10a

$ per hour . . . . . ___ ___ ___

V136: QOLH10b

$ per week. . . . . ___ ___ ___

(SKIP TO Q. 17)

V137: QOLH11

11 *Have you ever worked in the past ‹year›?*

No. 0

Yes 1

Missing 9

V138: QOLH12

12 *How long has it been since you had a job for pay?*

# of years . . . . . ___ ___

Less than a year 01

Missing 99

V139: QOLH13

13 *What do you think is the main reason that you don't have a steady job right now?*

Psychiatric reasons 1

Physical problems 2

Laid off 3

Looking/can't find a job 4

Other reason 5

Missing 9

V140: QOLH14

14 *Are you looking for work right now?*

No (GO TO Q. 18) 0

Yes, full-time 1

Yes, part-time 2

Yes, casual 3

Missing (GO TO Q. 18) 9

V141: QOLH15

15 *How long have you been looking?*

‹ 1 month 0
1-3 months. 1
4-6 months 2
7-11 months 3
1-5 years 4
6-10 years 5
› 10 years 6
Missing (GO TO Q. 18) 9

16 *During the past ‹year› have you either:*

V142: QOLH16a

A. Filled out an application for a job?

No 0
Yes 1
Missing 9

V143: QOLH16b

B. Interviewed for a job?

No 0
Yes 1
Missing 9

(SKIP TO Q. 18)

17 *JOB SATISFACTION (USE D-T SCALE) (SKIP IF UNEMPLOYED): How do you feel about:*

V144: QOLH17a A. Your job?. . . . . ____

V145: QOLH17b B. The people you work with? . . . . . ____

V146: QOLH17c C. What it is like where you work (the physical surroundings). . . . . ____

V147: QOLH17d D. The number of hours you work? . . . . . ____

V148: QOLH17e E. The amount you get paid? . . . . . ____

V149: QOLH18

18 *Have you been a student during the past ‹year›?.*

No (GO TO NEXT SECTION) 0

Yes 1

Missing (GO TO NEXT SECTION) 9

V150: QOLH19

19 *At what level was the schooling?*

High School (GRADES 9 - 12, INCLUDING GED) 1

Adult Education 2

College (Undergraduate) 3

Graduate school 4

Vocational/technical school 5

Job Training 6

Other (SPECIFY BELOW). 7

_____

V151: QOLH20

20 *Did you carry a full-time load of studies?*

No. 0

Yes 1

Missing 9

V152: QOLH21

21 *Are you attending now?*

No. 0

Yes 1

Missing 9

22 *Using the D-T Scale again, how do you feel about:*

V153: QOLH22a A. Being a student? . . . . . ____

V154: QOLH22b B. Your school? . . . . . ____

V155: QOLH22c C. The other students at your school? . . . . . ____

Section I: Legal & Safe1y Issues

1 *In the past ‹year›, were you a victim of:*

V156: QOLI1a

A. Any violent crimes such as assault, rape, mugging, or robbery?

No 0

Yes 1

Missing 9

V157: QOLI1b

B. Any nonviolent crimes such as burglary, theft of your property or money or being cheated?

No 0

Yes 1

Missing 9

V158: QOLI2

2 *Have you been arrested or picked-up for any crimes in the past ‹year›?*

ARRESTS . . . . . ___ ___

V159: QOLI3

3 *Have you spent any nights in jail in the past ‹year›?.*

NIGHTS. . . . . ___ ___

4 *Please look at the D-T Scale again. How do you feel about: (READ OPTIONS A-E)?*

V160: QOLI4a

A. Your personal safety? . . . . . ____

V161: QOLI4b

B. How safe you are on the streets in your neighborhood? . . . . . ____

V162: QOLI4c

C. How safe you are where you live? . . . . . ____

V163: QOLI4d

D. The protection you have against being robbed or attacked? . . . . . ____

V164: QOLI4e

E. Your chance of finding a policeman if you need one? . . . . . ____

Section J: Health

Now I'd like to ask you about your health.

V165: QOLJ1

1 *In general, would you say your health is:*

Excellent 1
Very Good 2
Good 3
Fair 4
Poor 5
Missing 9

V166: QOLJ2

2 *Compared to six months ago, how would you rate your health in general now?*

Much better now than six months ago 1
Somewhat better now than six months ago 2
About the same 3
Somewhat worse now than six months ago 4
Much worse now than six months ago 5
Missing 9

3 *How do you feel about (USE THE D/T SCALE)*

V167: QOLJ3a A. Your health in general? . . . . . ____

V168: QOLJ3b B. The medical care available to you if you need it? . . . . . ____

V169: QOLJ3c C. How often you see a doctor? . . . . . ____

V170: QOLJ3d D. The chance you have to talk with a therapist? . . . . . ____

V171: QOLJ3e E. Your physical condition? . . . . . ____

V172: QOLJ3f F. Your emotional well-being? . . . . . ____

Section K: Global Rating

V173: QOLK1

1 *And a very general question again. using the D-T Scale again, how do you feel about your life in general?*

_____

V174: TimeE1: V175TimeE2

Time Ended (military time): __ __ : __ __

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V1	Time B1	2			01-24	9														
V2	Time B2	2			00-60															
V3	QOL A1	1			1,2															
V4	QOL A2a	2			01-12															
V5	QOL A2b	2			01-31															
V6	QOL A2c	2			00-98															
V7	QOL A3	2			18-98															
V8	QOL A4	1			1-6															
V9	QOL A5a	2			00-20															
V10	QOL A5b	2			00-20															
V11	QOL A6	2			00-24		If V11 is 12 go to V13													
V12	QOL A7	1			0,1															
V13	QOL A8	1			0,1		If V13 is 0 go to V15													
V14	QOL A9	1			1-5															
V15	QOL A10	1			0,1		If V15 is 1 go to V17													
V16	QOL A11	2			00-98															
V17	QOL A12	1			1-6															
V18	QOL A13	1			0,1		If V17 is 0 go to V21													
V19	QOL A14	1			1,2,3															
V20	QOL A15	1			1-6	↓														

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V21	QOL B1	1			1-7	9														
V22	QOL C1	2			01-16,99															
V23	QOL C2	1			0,1		if V23 is 0 9, go to V34													
V24	QOL C3a	2			01-16,99															
V25	QOL C3b	2			01-16															
V26	QOL C3c	2			01-16															
V27	QOL C3d	2			01-16															
V28	QOL C3e	2			01-16															
V29	QOL C3f	2			01-16															
V30	QOL C3g	2			01-16															
V31	QOL C3h	2			01-16															
V32	QOL C3i	2			01-20															
V33	QOL C4	2			01-16,99															
V34	QOL C5a	1			0,1															
V35	QOL C5b	1			0,1															
V36	QOL C5c	1			0,1															
V37	QOL C5d	1			0,1															
V38	QOL C6	1			0,1,9															
V39	QOL C7a	1			1-7															
V40	QOL C7b	1			1-7	↓														

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V41	QOL C7c	1			1-7	9														
V42	QOL C7d	1			1-7															
V43	QOL C7e	1			1-7															
V44	QOL C7f	1			1-7															
V45	QOL C8a	1			1-7															
V46	QOL C8b	1			1-7															
V47	QOL C8c	1			1-7															
V48	QOL C8d	1			1-7															
V49	QOL C8e	1			1-7															
V50	QOL C8f	1			1-7															
V51	QOL D1a	1			0,1,9															
V52	QOL D1b	1			0,1,9															
V53	QOL D1c	1			0,1,9															
V54	QOL D1d	1			0,1,9															
V55	QOL D1e	1			0,1,9															
V56	QOL D1f	1			0,1,9															
V57	QOL D1g	1			0,1,9															
V58	QOL D1h	1			0,1,9															
V59	QOL D1i	1			0,1,9															
V60	QOL D1j	1			0,1,9	↓														

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V61	QOL D1k	1			0,1,9	9														
V62	QOL D1l	1			0,1,9															
V63	QOL D1m	1			0,1,9															
V64	QOL D1n	1			0,1,9															
V65	QOL D1o	1			0,1,9															
V66	QOL D1p	1			0,1,9															
V67	QOL D2	1			1-4,9															
V68	QOL D3a	1			1-4,9															
V69	QOL D3b	1			1-4,9															
V70	QOL D3c	1			1-4,9															
V71	QOL D3d	1			1-4,9															
V72	QOL D3e	1			1-4,9															
V73	QOL D3f	1			1-4,9															
V74	QOL E1	1			0-5,9		if V74 is 0, go to V80													
V75	QOL E2	1			0-5,9		if V75 is 0, go to V80													
V76	QOL E3a	1			1-7															
V77	QOL E3b	1			1-7															
V78	QOL E3c	1			1-7															
V79	QOL E3d	1			1-7															
V80	QOL F1a	1			1-5,9	↓														

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V81	QOL F1b	1			1-5,9	9														
V82	QOL F1c	1			1-5,9															
V83	QOL F1d	1			1-5,9															
V84	QOL F1e	1			1-5,9															
V85	QOL F1f	1			1-5,9															
V86	QOL F2a	1			1-7															
V87	QOL F2b	1			1-7															
V88	QOL F2c	1			1-7															
V89	QOL F2d	1			1-7															
V90	QOL F2e	1			1-7															
V91	QOL F2f	1			1-7															
V92	QOL G1a	1			0,1,9															
V93	QOL G1b	1			0,1,9															
V94	QOL G1c	1			0,1,9															
V95	QOL G1d	1			0,1,9															
V96	QOL G1e	1			0,1,9															
V97	QOL G1f	1			0,1,9															
V98	QOL G1g	1			0,1,9															
V99	QOL G1h	1			0,1,9															
V100	QOL G1i	1			0,1,9	↓														

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V101	QOL G1j	1			0,1,9	9														
V102	QOL G1k	1			0,1,9															
V103	QOL G1l	1			0,1,9															
V104	QOL G1m	1			0,1,9															
V105	QOL G1n	1			0,1,9															
V106	QOL G2	4			0000-9997															
V107	QOL G2a	1			0,1,9		if V107 is 1, go to V110													
V108	QOL G2b	1			1,2,9															
V109	QOL G2c	4			0000-9997															
V110	QOL G3	4			0000-9997															
V111	QOL G3a	1			1-4															
V112	QOL G4	1			0,1		if V112 is 0, go to V114													
V113	QOL G4a	1			0,1															
V114	QOL G5a	1			0,1,9															
V115	QOL G5b	1			0,1,9															
V116	QOL G5c	1			0,1,9															
V117	QOL G5d	1			0,1,9															
V118	QOL G5e	1			0,1,9															
V119	QOL G5f	1			0,1,9															
V120	QOL G6a	1			1-7	↓														

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V121	QOL G6b	1			1-7	9														
V122	QOL G6c	1			1-7															
V123	QOL G6d	1			1-7															
V124	QOL H1	1			1-7,9		if V124 is 1, go to V126													
V125	QOL H2	1			0,1,9		if V125is 0, go to V137													
V126	QOL H3	2			00-97															
V127	QOL H3a	2			00-97															
V128	QOL H3b	2			00-97															
V129	QOL H4	3			000-996															
V130	QOL H5	1			0,1,9															
V131	QOL H6	1			0,1,9															
V132	QOL H7	1			0,1,9		if V132 is 1 go to V134													
V133	QOL H8	1			0,1,9															
V134	QOL H9	3			000-998															
V135	QOL H10a	3			000-998															
V136	QOL H10b	3			000-998		Skip to V144													
V137	QOL H11	1			0,1,9															
V138	QOL H12	2			00-98															
V139	QOL H13	1			1-5,9															
V140	QOL H14	1			0-3,9	↓	if V140 is 0 or 9, go to V149													

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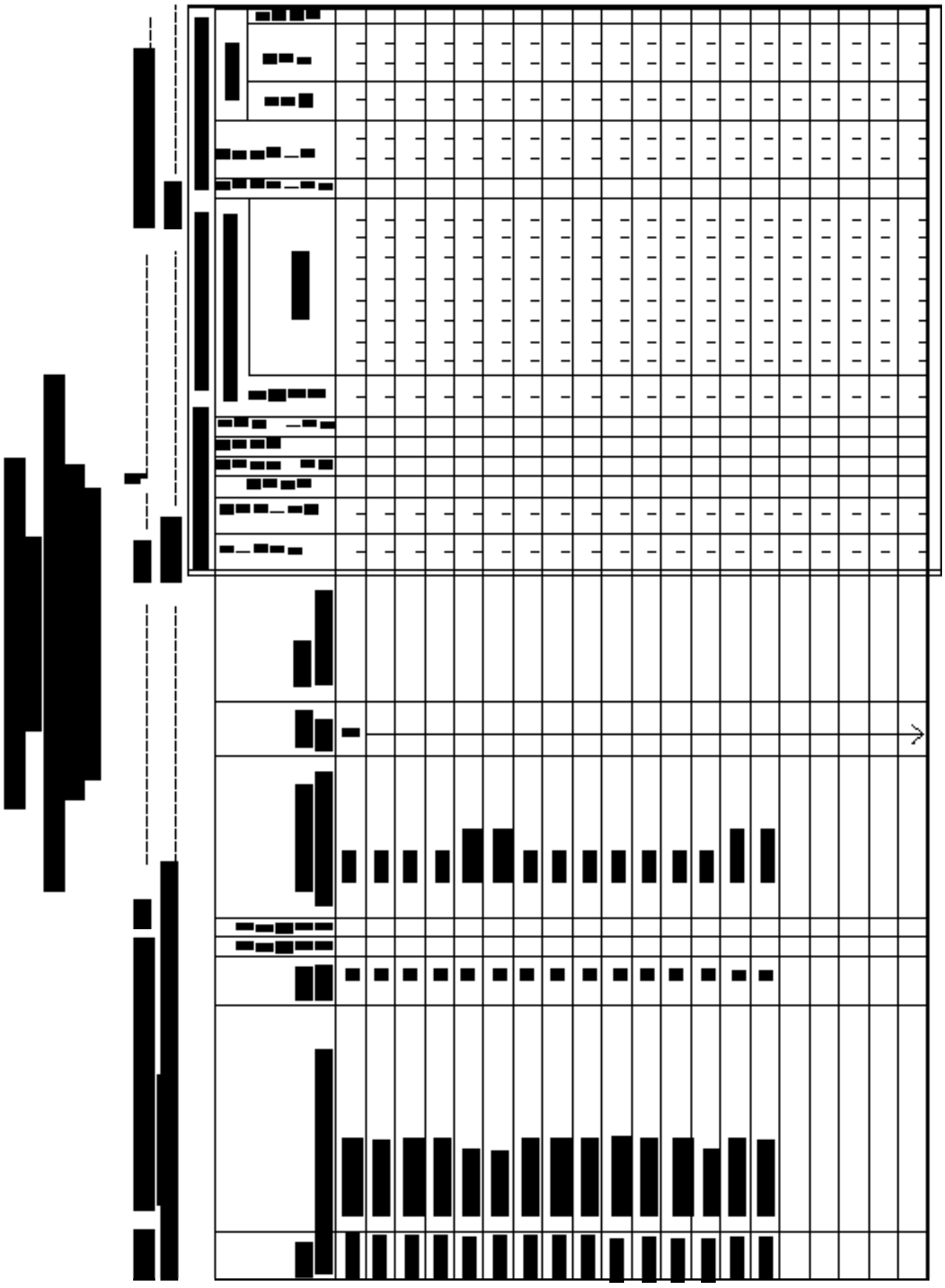
V141	QOL H15	1			0-6,9	9	if V141 is 9 go to V149													
V142	QOL H16a	1			0,1,9															
V143	QOL H16b	1			0,1,9		Skip to V149													
V144	QOL H17a	1			1-7															
V145	QOL H17b	1			1-7															
V146	QOL H17c	1			1-7															
V147	QOL H17d	1			1-7															
V148	QOL H17e	1			1-7															
V149	QOL H18	1			0,1,9		if V149 is 0 go to V156													
V150	QOL H19	1			1-7															
V151	QOL H20	1			0,1,9															
V152	QOL H21	1			0,1,9															
V153	QOL H22a	1			1-7															
V154	QOL H22b	1			1-7															
V155	QOL H22c	1			1-7															
V156	QOL I1a	1			0,1,9															
V157	QOL I1b	1			0,1,9															
V158	QOL I2	2			00-98															
V159	QOL I3	3			000-365															
V160	QOL I4a	1			1-7	↓														



Quality Of Life Interview

CODEBOOK BRIEF VERSION

V1BTimeB1: V2BTimeB2

Time Began (military time): ___ ___ : ___ ___

Section A: General Life Satisfaction

Please look at this card. (HAND SUBJECT THE DELIGHTED-TERRIBLE SCALE). This is called the Delighted-Terrible Scale (D/T Scale).

The scale goes from **terrible**, which is the lowest ranking of **1**, to **delighted**, which is the highest ranking of **7**. There are also points 2 through 6 with descriptions below them. (READ POINTS ON THE SCALE).

During the interview we'll be using this scale from time to time to help you tell me how you feel about different things in your life. All you have to do is tell me what on the scale best describes how you feel. For example, if I ask, "how do you feel about chocolate ice cream" and you are someone who loves chocolate ice cream, you might point to "delighted." On the other hand, if you hate chocolate ice cream, you might point to "terrible." If you feel about equally satisfied and dissatisfied with chocolate ice cream, then you would point to the middle of the scale.

Do you have any questions about the scale? Please show me how you feel about chocolate ice cream. Let's begin.

The first question is a very general one.

V3: QOLBA1

1 *How do you feel about your life in general?*

D-T SCALE . . . . . ____

Missing 9

Now, set the scale aside. I'll let you know when we need it again.

Section B: Living Situation

Now I am going to ask you some questions about your living situation.

V4: QOLBB1

1 *What is your <u>current</u> living situation?*

(USE CODES BELOW) . . . . . ___ ___

(IF RESPONDENT IS CURRENTLY IN THE HOSPITAL, AND THIS HOSPITALIZATION HAS LASTED LESS THAN 3 MONTHS, LIVING SITUATION = LIVING SITUATION JUST PRIOR TO HOSPITALIZATION. IF THE HOSPITALIZATION HAS BEEN FOR 3 MONTHS OR MORE, CODE "HOSPITAL").

01 Hospital

02 Skilled nursing facility:24 hour nursing service

03 Intermediate care facility:less than 24 hour nursing facility

04 Supervised group living:(generally long term)

05 Transitional group home:(halfway or quarterwayhouse)

06 Family foster care

07 Cooperative apartment,supervised (staff on premises)

08 Cooperative apartment, unsupervised (staff not on premises)

09 Board and care home: (private proprietary home for adults, with program and supervision)

10 Boarding house:(includes meals, no program or supervision)

11 Rooming or boardinghouseor hotel: (includes single room occupancy, no meals are provided, cooking facilities may be available)

12 Private house or apartment

13 Shelter

14 Jail

15 No current residence(including the streets, bus stations, missions, etc.)

16 Other:
_____
_____
_____

99 No information

2 *List in order the places you have lived during the past ‹year›, including psychiatric hospitalizations, beginning with your <u>current</u> living situation. (USE CODES THIS PAGE)*

	CODE	DESCRIPTION
V5: QOLBB2a a		
V6: QOLBB2b b		
V7: QOLBB2c c		
V8: QOLBB2d d		
V9: QOLBB2e e		
V10: QOLBB2f f		

V11: QOLBB2g **2G** *Total number of different, non-hospital residences, during the past ‹year›?*

(SPECIFY) . . . . . ___ ___

V12: QOLBB3 **3** *Which of these was your usual residence during the past ‹year›?*

(USE CODES BELOW) . . . . . ___ ___

4 *Now look at the D-T Scale again and answer the following:*
(HAND RESPONDENT THE D-T SCALE. IF RESPONDENT IS CURRENTLY IN TIE HOSPITAL FOR LESS MAN 3 MONTHS, USE MORE RECENT RESIDENCE PRIOR TO HOSPITALIZATION. IF RESPONDENT IS IN THE HOSPITAL 3 MONTHS OR MORE, USE HOSPITAL AS THE RESIDENCE. SKIP IF HOMELESS).

How do you feel about

V13: QOLBB4a A. The living arrangements where you live? . . . . . ____

V14: QOLBB4b B. The privacy you have there? . . . . . ____

V15: QOLBB4c C The prospect of staying on where you currently live for a long period of time? . . . . . ____

Section C: Daily Activities & Functioning

1 *Now let's talk about some of the things you did with your time in the past week . I'm going to read you a fist of things people may do with their free time. For each of these, please tell me if you did it during the past week. Did you (READ OPTIONS A-H)*

			NO	YES	MISS
V16: QOLBC1a	A.	Go for a walk?r	0	1	9
V17: QOLBC1b	B.	Go shopping?	0	1	9
V18: QOLBC1c	C.	Go to a restaurant or coffee shop?	0	1	9
V19: QOLBC1d	D.	Read a book, magazine or newspaper?	0	1	9
V20: QOLBC1e	E.	Go for a ride in a bus or car?	0	1	9
V21: QOLBC1f	F.	Work on a hobby?	0	1	9
V22: QOLBC1g	G.	Play a sport?	0	1	9
V23: QOLBC1h	H.	Go to a park?	0	1	9

V24: QOLBC2

2 *Overall, how would you rate your functioning in home, social, school, and work settings at the present time? Would you say your functioning in these areas is excellent, good, fair or poor?*

Excellent 1

Good 2

Fair 3

Poor 4

Missing 9

3 *Now please look at the D-T Scale again.*

How do you feel about

V25: QOLBC3a A. The way you spend your spare time? . . . . . ____

V26: QOLBC3b B. The chance you have to enjoy pleasant or beautiful things? . . . . . ____

V27: QOLBC3c C. The amount of fun you have? . . . . . ____

V28: QOLBC3d D. The amount of relaxation in your life? . . . . . ____

Section D: Family

The next few questions are about your relationship with your family including any relatives with whom you live.

V29: QOLBD1

1 *In the past ‹year›, how often did you talk to a member of your family on the telephone? Would you say at least once a day, at least once a week, at least once a month, less than once a month but at least once during the year, or not at all?*

At least once a day 5
At least once a week 4
At least once a month 3
Less than once a month 2
Not at all 1
No family (GO TO SECTION E) 0
Missing 9

V30: QOLBD2

2 *In the past ‹year›, how often did you get together with a member of your family—at least once a day, at least once a week, at least once a month, less than once a month but at least once during the year, or not at all?*

At least once a day 5
At least once a week 4
At least once a month 3
Less than once a month 2
Not at all 1
No family (GO TO SECTION E) 0
Missing 9

3 *Please look at the D-T Scale again. How do you feel about:*

V31: QOLBD3a

A. The way you and your family act toward each other? . . . . . ____

V32: QOLBD3b

B. The way things are in general between you and your family? . . . . . ____

Section E: Social Relations

Now I'd like to know about other people in your life, that is, people who are not in your family.

1 *About how often do you do the following? Would you say, at least once a day, once a week, once a month, less than once a month or not at all?*

At least once a day 5

At least once a week 4

At least once a month 3

Less than once a month 2

Not at all 1

Missing 9

V33: QOLBE1a A. Visit with someone who does not live with you? . . . . . ____

V34: QOLBE1b B. Telephone someone who does not live with you? . . . . . ____

V35: QOLBE1c C. Do something with another person that you planned ahead of time? . . . . . ____

V36: QOLBE1d D. Spend time with someone you consider more than a friend, like a spouse, a boyfriend or a girlfriend? . . . . . ____

2 *Please look at the D-T Scale again. How do you feel about:*

V37: QOLBE2a A. The things you do with other people? . . . . . ____

V38: QOLBE2b B. The amount of time you spend with other people? . . . . . ____

V39: QOLBE2c C. The people you see socially? . . . . . ____

Section F: Finames

A few questions about money.

1 *In the past <year> have you had any financial support from the following sources?*

			NO	YES	MISS
V40: QOLBF1a	A.	Earned Incomer	0	1	9
V41: QOLBF1b	B.	Social Security Benefits (SSA)	0	1	9
V42: QOLBF1c	C.	Social Security Disability Income (SSDI)	0	1	9
V43: QOLBF1d	D.	Supplemental Security Income (SSI)	0	1	9
V44: QOLBF1e	E.	Armed Service connected disability payments	0	1	9
V45: QOLBF1f	F.	Other Social Welfare benefits–state or county (general welfare, Aid to Families with DependentChildren (AFDC))	0	1	9
V46: QOLBF1g	G.	Vocational program (Comprehensive Employment and Training Act (CETA), Vocational Rehabilitation, sheltered workshop)	0	1	9
V47: QOLBF1h	H.	Unemployment compensation	0	1	9
V48: QOLBF1i	1.	Retirement, investment or savings income	0	1	9
V49: QOLBF1j	J.	Rent supplements (including HUD, Section 8 certificates, living programs receiving public assistance support)	0	1	9
V50: QOLBF1k	K	Alimony and child support	0	1	9
V51: QOLBF1l	L.	Food stamps	0	1	9
V52: QOLBF1m	M.	Family and/or spouse contribution	0	1	9
V53: QOLBF1n	N.	Other source(s) (SPECIFY BELOW)	0	1	9

V54: QOLBF2

2 *How much money did you receive during the <u>past month</u> from all of these sources?*

(SPECIFY) . . . . . $___ ___ ___ ___

Missing 9999

V55: QOLBF3

3 *On the average, how much money did you have to spend on yourself in the <u>past month</u>, not counting money for room and meals?*

(SPECIFY) . . . . . $___ ___ ___ ___

Missing 9999

V56: QOLBF3a

INTERVIEWER RATING:

HOW RELIABIE DO YOU THINK R'S RESPONSES WERE TO Q1?

VERY RELIABLE 4

GENERALLY RELIABLE 3

GENERALLY UNRELIABLE 2

VERY UNRELIABLE. 1

4 *During the past <year>, did you generally have enough money each month to cover ... (READ OPTIONS A-F)*

		NO	YES	MISS
V57: QOLBF4a	A. Food?	0	1	9
V58: QOLBF4b	B. Clothing?	0	1	9
V59: QOLBF4c	C. Housing?	0	1	9
V60: QOLBF4d	D. Traveling around the city for things like shopping, medical appointments, or visiting friends and relatives?	0	1	9
V61: QOLBF4e	E. Social activities like movies or eating in restaurants?	0	1	9

5 *Now, I'd like to use the D-T Scale again.*

In general, how do you feel about:

V62: QOLBF5a A. The amount of money you get? . . . . . ____

V63: QOLBF5b B. How comfortable and well-off you are financially? . . . . . ____

V64: QOLBF5c C. The amount of money you have available to spend for fun? . . . . . ____

Section G: Work & School

V65: QOLBG1

1 *Have you worked during the past ‹year›, that is since (DATE)?*

Are you working now?

Yes, currently working 1

Yes, worked in the past ‹year› but not currently employed (GO TO NEXT SECTION) 2

No work in the past ‹year› (GO TO NEXT SECTION) 0

Missing 9

V66: QOLBG2

2 *What kind of work do you do at the present time?*

(IF MORE THAN ONE JOB, USE JOB AT WHICH THE RESPONDENT EARNS THE HIGHER WEEELY SAIARY)

(SPECIFY BELOW) . . . . . ___ ___

_____

_____

_____

V67: QOLBG3

3 *How many hours a week do you usually work?*

# of hours . . . . . ___ ___ ___

Missing 999

V68: QOLBG4a
V69: QOLBG4b

4 *How much do you earn per hour/week at this job? (CHOOSE ONE)*

$ per hour . . . . . $__ __ __ __

$ per week. . . . . $__ __ __ __

5 *JOB SATISFACTION (USE D-T SCALE) How do you feel about:*

V70: QOLBG5a

A. Yourjob? . . . . . ____

V71: QOLBG5b

B. What it is like where you work (the physical surroundings) . . . . . ____

V72: QOLBG5c

C. The amount you get paid? . . . . . ____

Section H: Legal & Safety Issues

1 *In the past ‹year›, were you a victim of:*

V73: QOLBH1a

A. Any violent crimes such as assault, rape, mugging, or robbery?

No 0

Yes 1

Missing 9

V74: QOLBH1b

B. Any nonviolent crimes such as burglary, Theft of your property or money, or being cheated?

No 0

Yes 1

Missing 9

V75: QOLBH2

2 *In the past ‹year›, have you been arrested or picked-up for any crimes?*

# of arrests . . . . . ___ ___

3 *Please look at the D-T Scale again. How do you feel about:*

V76: QOLBH3a

A. How safe you are on the streets in your neighborhood? . . . . . ____

V77: QOLBH3b

B. How safe you are where you live? . . . . . ____

V78: QOLBH3c

C. The protection you have against being robbed or attacked? . . . . . ____

Section I: Health

Now I'd like to ask about your health.

V79: QOLBI1

1 *in general, would you say your health is:*

Excellent 1
Very Good 2
Good 3
Fair 4
Poor 5
Missing 9

2 *How do you feel about: (USE THE D/T SCALE)*

V80: QOLBI2a A. Your health in general? . . . . . ____

V81: QOLBI2b B. Your physical condition? . . . . . ____

V82: QOLBI2c C. Your emotional well-being? . . . . . ____

Section J: Global Rating

V83: QOLBJ1

1 *And a very general question again. Using the D-T Scale again,*

How do you feel about your life in general? . . . . . ____

V84BTimeE1: V85BTimeE2

Time Ended (military time): __ __ : __ __

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Department of Epistomology & Preventive Medicine
Health Data Management Center
VARIABLE SPECIFICATIONS

Project: Quality of Life Interview Job: _____ Batch: ___ /_____ Page: _1__ of _5__

Coder: Full Version_____. Checker:_____ Designer: _____. Date: _____

VAR NUM	DESCRIPTIVE NAME	COL SIZE	FTYPE	DTYPE	PROCESSING SPECIFICATIONS	MISS VAL	SKIP PATTERNS	FOR INTERNAL USE ONLY: FIELD	VERIFY	AUTO	MUSTKY	CORR	DUPILL	ATTACHMENT REFERENCE TVPE	ATTACHMENT REFERENCE NUMBER	PREFILL	ATTRIB	SCREEN ROW	SCREEN COL	SCREEN PAGE
V1	BTime B1	2			01-24	9														
V2	BTime B2	2			00-60															
V3	QOLB A1	1			1-7															
V4	QOLB B1	2			01-16,99															
V5	QOLB B2a	2			01-16,99															
V6	QOLB B2b	2			01-16,99															
V7	QOLB B2c	2			01-16,99															
V8	QOLB B2d	2			01-16,99															
V9	QOLB B2e	2			01-16,99															
V10	QOLB B2f	2			01-16,99															
V11	QOLB B2g	2			00-20															
V12	QOLB B3	2			00-16,99															
V13	QOLB B4a	1			1-7															
V14	QOLB B4b	1			1-7															
V15	QOLB B4c	1			1-7															
V16	QOLB C1a	2			0,1,9															
V17	QOLB C1b	1			0,1,9															
V18	QOLB C1c	1			0,1,9															
V19	QOLB C1d	1			0,1,9															
V20	QOLB C1e	1			0,1,9	↓														

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Coder: Full Version_____. Checker:_____ Designer: _____. Date: _____.

VAR NUM	DESCRIPTIVE NAME	COL SIZE	FTYPE	DTYPE	PROCESSING SPECIFICATIONS	MISS VAL	SKIP PATTERNS	FOR INTERNAL USE ONLY: FIELD	VERIFY	AUTO	MUSTKY	CORR	DUPILL	ATTACHMENT REFERENCE TVPE	ATTACHMENT REFERENCE NUMBER	PREFILL	ATTRIB	SCREEN ROW	SCREEN COL	SCREEN PAGE
V21	QOLB C1F	1			0,1,9	9														
V22	QOLB C1g	1			0,1,9															
V23	QOLB C1h	1			0,1,9															
V24	QOLB C2	1			1,2,3,4															
V25	QOLB C3a	1			1-7															
V26	QOLB C3b	1			1-7															
V27	QOLB C3c	1			1-7															
V28	QOLB C3d	1			1-7															
V29	QOLB D1	1			0-5,9		if V29 is 0, go to V33													
V30	QOLB D2	1			0-5,9		if V30 is 0, go to V33													
V31	QOLB D3a	1			1-7															
V32	QOLB D3b	1			1-7															
V33	QOLB E1a	1			1-5,9															
V34	QOLB E1b	1			1-5,9															
V35	QOLB E1c	1			1-5,9															
V36	QOLB E1d	1			1-5,9															
V37	QOLB E2a	1			1-7															
V38	QOLB E2b	1			1-7															
V39	QOLB E2c	1			1-7															
V40	QOLB F1a	1			0,1,9	↓														

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Coder: Full Version_____. Checker:_____ Designer: _____. Date: _____

VAR NUM	DESCRIPTIVE NAME	COL SIZE	FTYPE	DTYPE	PROCESSING SPECIFICATIONS	MISS VAL	SKIP PATTERNS	FOR INTERNAL USE ONLY: FIELD	VERIFY	AUTO	MUSTKY	CORR	DUPILL	ATTACHMENT REFERENCE TVPE	ATTACHMENT REFERENCE NUMBER	PREFILL	ATTRIB	SCREEN ROW	SCREEN COL	SCREEN PAGE
V41	QOLB F1b	1			0,1,9	9														
V42	QOLB F1c	1			0,1,9															
V43	QOLB F1d	1			0,1,9															
V44	QOLB F1e	1			0,1,9															
V45	QOLB F1f	1																		
V46	QOLB F1g	1																		
V47	QOLB F1h	1																		
V48	QOLB F1i	1																		
V49	QOLB F1j	1																		
V50	QOLB F1k	1																		
V51	QOLB F1l	1																		
V52	QOLB F1m	1																		
V53	QOLB F1n	1			↓ ↓															
V54	QOLB F2	4			0000-9998															
V55	QOLB F3	4			0000-9998															
V56	QOLB F3a	1			1-4															
V57	QOLB F4a	1			0,1,9															
V58	QOLB F4b	1			0,1,9															
V59	QOLB F4c	1			0,1,9															
V60	QOLB F4d	1			0,1,9	↓														

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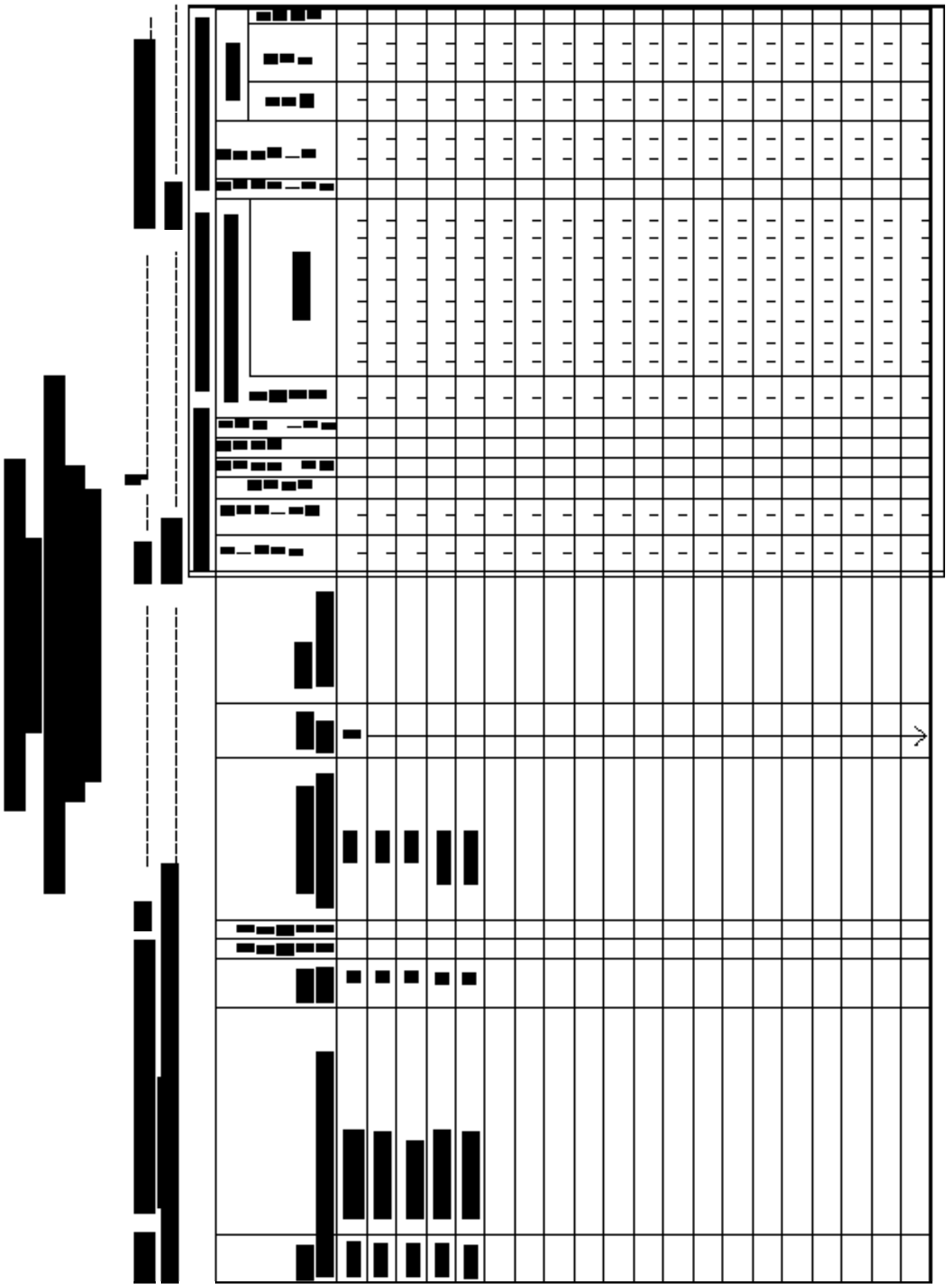
Coder: Full Version_____. Checker:_____ Designer: _____. Date: _____.

VAR NUM	DESCRIPTIVE NAME	COL SIZE	FTYPE	DTYPE	PROCESSING SPECIFICATIONS	MISS VAL	SKIP PATTERNS	FOR INTERNAL USE ONLY: FIELD	VERIFY	AUTO	MUSTKY	CORR	DUPILL	ATTACHMENT REFERENCE TVPE	ATTACHMENT REFERENCE NUMBER	PREFILL	ATTRIB	SCREEN ROW	SCREEN COL	SCREEN PAGE
V61	QOLB F4e	1			0,1,9	9														
V62	QOLB F5a	1			1-7															
V63	QOLB F5b	1			1-7															
V64	QOLB F5c	1			1-7															
V65	QOLB G1	1			0-2,9		if V65 is 0 or2,go to V72													
V66	QOLB G2	2			00-25															
V67	QOLB G3	3			001-168															
V68	QOLB G4a	3			000-998															
V69	QOLB G4b	3			000-998															
V70	QOLB G5a	1			1-7															
V71	QOLB G5b	1			1-7															
V72	QOLB G5c	1			1-7															
V73	QOLB H1a	1			0,1,9															
V74	QOLB H1b	1			0,1,9															
V75	QOLB H2	1			00-25															
V76	QOLB H3a	1			1-7															
V77	QOLB H3b	1			1-7															
V78	QOLB H3c	1			1-7															
V79	QOLB I1	1			1-5,9															
V80	QOLB I2a	1			1-7	↓														



Appendix B

```
/*****************************************************************
*/
/*    SAS PROGRAM THAT READS RAW DATA FROM THE FULL QOLI,
*/
/*    COMPUTES QOLI SCALES AND CREATES A PERMANENT SAS
*/
/*    DATASET
*/
/*****************************************************************
*/

LIBNAME SASDATA '/USERS/TLEHMAN/FQOLI';
OPTIONS LINESIZE = 78 PAGESIZE = 58;

DATA  SASDATA.FQOLI;
INFILE '/USERS/TLEHMAN/FQOLI/??????.DAT';
     INPUT
     #1
     V1   2.   V2   2.   V3   1.   V4   2.   V5   2.   V6   2.
     V7   2.   V8   1.   V9   2.   V10  2.   V11  2.
     V12  1.   V13  1.
     V14  1.   V15  1.   V16  2.   V17  1.   V18  1.   V19  1.
     V20  1.   V21  1.   V22  2.   V23  1.   V24  2.   V25  2.
     V26  2.   V27  2.   V28  2.   V29  2.   V30  2.   V31  2.
     V32  2.   V33  2.   V34  1.   V35  1.   V36  1.   V37  1.
     V38  1.   V39  1.   V40  1.   V41  1.   V42  1.   V43  1.
     V44  1.   V45  1.   V46  1.   V47  1.   V48  1.   V49  1.
     V50  1.   V51  1.   V52  1.   V53  1.   V54  1.   V55  1.
     V56  1.   V57  1.   V58  1.   V59  1.

     #2
     V60  1.   V61  1.   V62  1.   V63  1.   V64  1.   V65  1.
     V66  1.   V67  1.   V68  1.   V69  1.   V70  1.   V71  1.
     V72  1.   V73  1.   V74  1.   V75  1.   V76  1.   V77  1.
     V78  1.   V79  1.   V80  1.   V81  1.   V82  1.   V83  1.
     V84  1.   V85  1.   V86  1.   V87  1.   V88  1.   V89  1.
     V90  1.   V91  1.   V92  1.   V93  1.   V94  1.   V95  1.
     V96  1.   V97  1.   V98  1.   V99  1.   V100 1.   V101 1.
     V102 1.   V103 1.   V104 1.   V105 1.   V106 4.   V107 1.
     V108 1.   V109 4.   V110 4.   V111 1.   V112 1.   V113 1.
     V114 1.   V115 1.   V116 1.   V117 1.   V118 1.   V119 1.
     V120 1.   V121 1.   V122 1.   V123 1.   V124 1.   V125 1.
     V126 2.

     #3
     V127 2.   V128 2.   V129 3.   V130 1.   V131 1.   V132 1.
     V133 1.   V134 3.   V135 3.   V136 3.   V137 1.   V138 2.
     V139 1.   V140 1.   V141 1.   V142 1.   V143 1.   V144 1.
     V145 1.   V146 1.   V147 1.   V148 1.   V149 1.   V150 1.
     V151 1.   V152 1.   V153 1.   V154 1.   V155 1.   V156 1.
     V157 1.   V158 2.   V159 3.   V160 1.   V161 1    V162 1.
     V163 1.   V164 1.   V165 1.   V166 1.   V167 1.   V168 1.
     V169 1.   V170 1.   V171 1.   V172 1.   V173 1.   V174 2.
     V175 2.
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IF V116     =  9                   THEN V116      = . ;
IF V117     =  9                   THEN V117      = . ;
IF V118     =  9                   THEN V118      = . ;
IF V119     =  9                   THEN V119      = . ;
IF V120     =  9                   THEN V120      = . ;
IF V121     =  9                   THEN V121      = . ;
IF V122     =  9                   THEN V122      = . ;
IF V123     =  9                   THEN V123      = . ;
IF V124     =  9                   THEN V124      = . ;
IF V125     =  9                   THEN V125      = . ;
IF V126     =  99                  THEN V126      = . ;
IF V127     =  99                  THEN V127      = . ;
IF V128     =  99                  THEN V128      = . ;
IF V129     =  999                 THEN V129      = . ;
IF V130     =  9                   THEN V130      = . ;
IF V131     =  9                   THEN V131      = . ;
IF V132     =  9                   THEN V132      = . ;
IF V133     =  9                   THEN V133      = . ;
IF V134     =  999                 THEN V134      = . ;
IF V135     =  999                 THEN V135      = . ;
IF V136     =  999                 THEN V136      = . ;
IF V137     =  9                   THEN V137      = . ;
IF V138     =  99                  THEN V138      = . ;
IF V139     =  9                   THEN V139      = . ;
IF V140     =  9                   THEN V140      = . ;
IF V141     =  9                   THEN V141      = . ;
IF V142     =  9                   THEN V142      = . ;
IF V143     =  9                   THEN V143      = . ;
IF V144     =  9                   THEN V144      = . ;
IF V145     =  9                   THEN V145      = . ;
IF V146     =  9                   THEN V146      = . ;
IF V147     =  9                   THEN V147      = . ;
IF V148     =  9                   THEN V148      = . ;
IF V149     =  9                   THEN V149      = . ;
IF V150     =  9                   THEN V150      = . ;
IF V151     =  9                   THEN V151      = . ;
IF V152     =  9                   THEN V152      = . ;
IF V153     =  9                   THEN V153      = . ;
IF V154     =  9                   THEN V154      = . ;
IF V155     =  9                   THEN V155      = . ;
IF V156     =  9                   THEN V156      = . ;
IF V157     =  9                   THEN V157      = . ;
IF V158     =  99                  THEN V158      = . ;
IF V159     =  999                 THEN V159      = . ;
IF V160     =  9                   THEN V160      = . ;
IF V161     =  9                   THEN V161      = . ;
IF V162     =  9                   THEN V162      = . ;
IF V163     =  9                   THEN V163      = . ;
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      IF V164      =  9                    THEN V164       = . ;
      IF V165      =  9                    THEN V165       = . ;
      IF V166      =  9                    THEN V166       = . ;
      IF V167      =  9                    THEN V167       = . ;
      IF V168      =  9                    THEN V168       = . ;
      IF V169      =  9                    THEN V169       = . ;
      IF V170      =  9                    THEN V170       = . ;
      IF V171      =  9                    THEN V171       = . ;
      IF V172      =  9                    THEN V172       = . ;
      IF V173      =  9                    THEN V173       = . ;
      IF V174      =  99                   THEN V174       = . ;
      IF V175      =  99                   THEN V175       = . ;

/********** RENAME VARIABLES **********/

RENAME     VI =   TIMEB1        V2=    TIMEB2          V3=    QOLA1
      V4 = QOLA2A V5=           QOLA2B V6=             QOLA2C
      V7 = QOLA3  V8=           QOLA4  V9=             QOLA5A
      V10= QOLA5B V11=          QOLA6  V12=            QOLA7
      V13= QOLA8  V14=          QOLA9  V15=            QOLA10
      V16= QOLA11 V17=          QOLA12 V18=            QOLA13
      V19= QOLA14 V20=          QOLA15 V21=            QOLB1
      V22= QOLC1  V23=          QOLC2  V24=            QOLC3A
      V25= QOLC3B V26=          QOLC3C V27=            QOLC3D
      V28= QOLC3E V29=          QOLC3F V30=            QOLC3G
      V31= QOLC3H V32=          QOLC3I V33=            QOLC4
      V34= QOLC5A V35=          QOLC5B V36=            QOLC5C
      V37= QOLC5D V38=          QOLC6  V39=            QOLC7A
      V40= QOLC7B V41=          QOLC7C V42=            QOLC7D
      V43= QOLC7E v44=          QOLC7F V45=            QOLC8A
      V46= QOLC8B V47=          QOLC8C V48=            QOLC8D
      v49= QOLC8E V50=          QOLC8F V51=            QOLD1A
      V52= QOLD1B V53=          QOLD1C V54=            QOLD1D
      V55= QOLD1E V56=          QOLD1F V57=            QOLD1G
      V58= QOLD1H V59=          QOLD1I V60=            QOLD1J
      V61= QOLD1K V62=          QOLD1L V63=            QOLD1M
      V64= QOLD1N V65=          QOLD1O V66=            QOLD1P
      V67= QOLD2  V68=          QOLD3A V69=            QOLD3B
      V70= QOLD3C V7l=          QOLD3D V72=            QOLD3E
      V73= QOLD3F V74=          QOLE1  V75= QOLE2
      V76= QOLE3A V77=          QOLE3B V79=            QOLE3C
      V79= QOLE3D V80=          QOLF1A V81=            QOLF1B
      V82= QOLF1C V83=          QOLF1D V84=            QOLF1E
      V85= QOLF1F V86=          QOLF2A V87=            QOLF2B
      V88= QOLF2C V89=          QOLF2D V90=            QOLF2E
      V91= QOLF2F V92=          QOLG1A V93=            QOLG1B
      V95= QOLG1C V95=          QOLG1D V96=            QOLG1E
      V97= QOLG1F V98=          QOLG1G V99=            QOLG1H
      V100=       QOLG1I        V101=  QOLG1J          V102=  QOLG1K
      V103=       QOLG1L        V104=  QOLG1M          V105=  QOLG1N
      V106=       QOLG2         V107=  QOLG2A          V108=  QOLG2B
      V109=       QOLG2C        V11O=  QOLG3           V111=  QOLG3A
      V112=       QOLG4         V113=  QOLG4A          V114=  QOLG5A
      V115=       QOLG5B        V116=  QOLG5C          V117=  QOLG5D
      V118=       QOLG5E        V119=  QOLG5F          V120=  QOLG6A
```

```
     V121=       QOLG6B        V122=  QOLG6C          V123=  QOLG6D
     V124=       QOLH1         V125=  QOLH2           V126=  QOLH3
     V127=       QOLH3A        V128=  QOLH3B          V129=  QOLH4
     V130=       QOLH5         V131=  QOLH6           V132=  QOLH7
     V133=       QOLH8         V134=  QOLH9           V135=  QOLH10A
     V136=       QOLH10B       V137=  QOLH11          V138=  QOLH12
     V139=       QOLH13        V140=  QOLH14          V141=  QOLH15
     V142=       QOLH16A       V143=  QOLH16B         V144=  QOLH17A
     V145=       QOLH17B       V146=  QOLH17C         V147=  QOLH17D
     V148=       QOLH17E       V149=  QOLH18          V150=  QOLH19
     V151=       QOLH20        V152=  QOLH21          V153=  QOLH22A
     V154=       QOLH22B       V155=  QOLH22C         V156=  QOLI1A
     V157=       QOLI1B        V158=  QOLI2           V159=  QOLI3
     V160=       QOLI4A        V161=  QOLI4B          V162=  QOLI4C
     V163=       QOLI4D        V164=  QOLI4E          V165=  QOLJ1
     V166=       QOLJ2         V167=  QOLJ3A          V168=  QOLJ3B
     V169=       QOLJ3C        V170=  QOLJ3D          V171=  QOLJ3E
     V172=       QOLJ3F        V173=  QOLK1           V174=  TIMEE1
     V175=       TIMEE2;

/********** CREATE QOLI SUBJECTIVE SCALES **********/

QLGLS = MEAN(QOLB1, QOLK1);

QLLIV = MEAN(QOLC7A, QOLC7B, QOLC7C, QOLC7D, QOLC7E, QOLC7F);

QLDAILY = MEAN(QOLD3A, QOLD3B, QOLD3C, QOLD3D, QOLD3E, QOLD3F);

QLFAM = MEAN(QOLE3A, QOLE3B, QOLE3C, QOLE3D);

QLSOC = MEAN(QOLF2A, QOLF2B, QOLF2C, QOLF2D, QOLF2E, QOLF2F);

QLFIN = MEAN(QOLG6A, QOLG6B, QOLG6C, QOLG6D);

QLJOB = MEAN(QOLH17A, QOLH17B, QOLH17C, QOLH17D, QOLH17E, QOLH17F);

QLSCHOOL = MEAN(QOLH22A, QOLH22B, QOLH22C);

QLSAFE = MEAN(QOLI4A, QOLI4B, QOLI4C, QOLI4D, QOLI4E);

QLHEALTH = MEAN(QOLJ3A, QOLJ3B, QOLJ3C, QOLJ3D, QOLJ3E, QOLJ3F);


/********** CREATE QOLI OBJECTIVE SCALES **********/

DAILYACT = MEAN(QOLD1A, QOLD1B, QOLD1C, QOLD1D, QOLD1E, QOLD1F, QOLD1G,
     QOLD1H, QOLD1I, QOLD1J, QOLD1K, QOLD1L, QOLD1M, QOLD1N, QOLD10,
     QOLD1P);

FAMCON = MEAN(QOLE1, QOLE2);

SOCREL = MEAN(QOLF1A, QOLF1B, QOLF1C, QOLF1D, QOLF1E, QOLF1F);

FINADQ = MEAN(QOLG5A, QOLG5B, QOLG5C, QOLG5D, QOLG5E, QOLG5F);

RUN;
```

```
/*****************************************************************
*/
/*    SAS PROGRAM THAT READS RAW DATA FROM THE BRIEF QOLI,
*/
/*    COMPUTES QOLI SCALE SCORES AND CREATES A PERMANENT SAS
*/
/*    DATASET
*/
/*****************************************************************
*/

LIBNAME SASDATA '/USERS/TLEHMAN/BQOLI';
OPTIONS LINESIZE = 78 PAGESIZE = 58;

DATA  SASDATA.BQOLI;
      INFILE '/USERS/TLEHMAN/BQOLI/??????.DAT';
      INPUT

      #1
      V1    2.    V2    2.    V3    1.    V4    2.    V5    2.    V6    2.
      V7    2.    V8    2.    V9    2.    V10   2.    V11   2.
      V12   2.    V13   1.
      V14   1.    V15   1.    V16   1.    V17   1.    V18   1.    V19   1.
      V20   1.    V21   1.    V22   1.    V23   1.    V24   1.    V25   1.
      V26   1.    V27   1.    V28   1.    V29   1.    V30   1.    V31   1.
      V32   1.    V33   1.    V34   1.    V35   1.    V36   1.    V37   1.
      V38   1.    V39   1.    V40   1.    V41   1.    V42   1.    V43   1.
      V44   1.    V45   1.    V46   1.    V47   1.    V48   1.    V49   1.
      V50   1.    V51   1.    V52   1.    V53   1.    V54   4.    V55   4.
      V56   1.    V57   1.    V58   1.    V59   1.    V60   1.    V61   1.
      V62   1.    V63   1.

      #2
      V64   1.    V65   1.
      V66   2.    V67   3.    V68   3.    V69   3.    V70   1.    V71   1.
      V72   1.    V73   1.    V74   1.    V75   2.    V76   1.    V77   1.
      V78   1.    V79   1.    V80   1.    V81   1.    V82   1.    V83   1.
      V84   2.    V85   2.
      ;

/********** ASSIGN MISSING VALUES **********/

      IF V1       =  99                  THEN V1        = . ;
      IF V2       =  99                  THEN V2        = . ;
      IF V3       =  9                   THEN V3        = . ;
      IF V4       =  99                  THEN V4        = . ;
      IF V5       =  99                  THEN V5        = . ;
      IF V6       =  99                  THEN V6        = . ;
      IF V7       =  99                  THEN V7        = . ;
      IF V8       =  99                  THEN V8        = . ;
      IF V9       =  99                  THEN V9        = . ;
      IF V10      =  99                  THEN V10       = . ;
      IF V11      =  99                  THEN V11       = . ;
      IF V12      =  99                  THEN V12       = . ;
      IF V13      =  9                   THEN V13       = . ;
```

```
IF V14      =  9                THEN V14      = . ;
IF V15      =  9                THEN V15      = . ;
IF V16      =  9                THEN V16      = . ;
IF V17      =  9                THEN V17      = . ;
IF V18      =  9                THEN V18      = . ;
IF V19      =  9                THEN V19      = . ;
IF V20      =  9                THEN V20      = . ;
IF V21      =  9                THEN V21      = . ;
IF V22      =  9                THEN V22      = . ;
IF V23      =  9                THEN V23      = . ;
IF V24      =  9                THEN V24      = . ;
IF V25      =  9                THEN V25      = . ;
IF V26      =  9                THEN V26      = . ;
IF V27      =  9                THEN V27      = . ;
IF V28      =  9                THEN V28      = . ;
IF V29      =  9                THEN V29      = . ;
IF V30      =  9                THEN V30      = . ;
IF V31      =  9                THEN V31      = . ;
IF V32      =  9                THEN V32      = . ;
IF V33      =  9                THEN V33      = . ;
IF V34      =  9                THEN V34      = . ;
IF V35      =  9                THEN V35      = . ;
IF V36      =  9                THEN V36      = . ;
IF V37      =  9                THEN V37      = . ;
IF V38      =  9                THEN V38      = . ;
IF V39      =  9                THEN V39      = . ;
IF V40      =  9                THEN V40      = . ;
IF V41      =  9                THEN V41      = . ;
IF V42      =  9                THEN V42      = . ;
IF V43      =  9                THEN V43      = . ;
IF V44      =  9                THEN V44      = . ;
IF V45      =  9                THEN V45      = . ;
IF V46      =  9                THEN V46      = . ;
IF V47      =  9                THEN V47      = . ;
IF V48      =  9                THEN V48      = . ;
IF V49      =  9                THEN V49      = . ;
IF V50      =  9                THEN V50      = . ;
IF V51      =  9                THEN V51      = . ;
IF V52      =  9                THEN V52      = . ;
IF V53      =  9                THEN V53      = . ;
IF V54      =  9999             THEN V54      = . ;
IF V55      =  9999             THEN V55      = . ;
IF V56      =  9                THEN V56      = . ;
IF V57      =  9                THEN V57      = . ;
IF V58      =  9                THEN V58      = . ;
IF V59      =  9                THEN V59      = . ;
IF V60      =  9                THEN V60      = . ;
IF V61      =  9                THEN V61      = . ;
IF V62      =  9                THEN V62      = . ;
IF V63      =  9                THEN V63      = . ;
IF V64      =  9                THEN V64      = . ;
IF V65      =  9                THEN V65      = . ;
IF V66      =  99               THEN V66      = . ;
IF V67      =  999              THEN V67      = . ;
IF V68      =  999              THEN V68      = . ;
```

```
      IF V69      =  999                  THEN V69        = . ;
      IF V70      =  9                    THEN V70        = . ;
      IF V71      =  9                    THEN V71        = . ;
      IF V72      =  9                    THEN V72        = . ;
      IF V73      =  9                    THEN V73        = . ;
      IF V74      =  9                    THEN V74        = . ;
      IF V75      =  99                   THEN V75        = . ;
      IF V76      =  9                    THEN V76        = . ;
      IF V77      =  9                    THEN V77        = . ;
      IF V78      =  9                    THEN V78        = . ;
      IF V79      =  9                    THEN V79        = . ;
      IF V80      =  9                    THEN V80        = . ;
      IF V81      =  9                    THEN V81        = . ;
      IF V82      =  9                    THEN V82        = . ;
      IF V83      =  9                    THEN V83        = . ;
      IF V84      =  99                   THEN V84        = . ;
      IF V85      =  99                   THEN V85        = . ;

/********** RENAME VARIABLES **********/

RENAME    V1 =   BTIMEB1       V2=    BTIMEB2        V3=    QOLBA1
      V4 = QOLBB1 V5=          QOLBB2A.              V6=    QOLBB2B
      V7 = QOLBB2CV8=          QOLBB2D               V9=    QOLBB2E
      V10= QOLBB2FV11=         QOLBB2G               V12=   QOLBB3
      V13= QOLBB4AV14=         QOLBB4B               V15=   QOLBB4C
      V16= QOLBC1AV17=         QOLBC1B               V18=   QOLBC1C
      V19= QOLBC1DV20=         QOLBC1E               V21=   QOLBC1F
      V22= QOLBC1GV23=         QOLBC1H               V24=   QOLBC2
      V25= QOLBC3AV26=         QOLBC3B               V27=   QOLBC3C
      V28= QOLBC3DV29=         QOLBD1 V30=           QOLBD2
      V31= QOLBD3AV32=         QOLBD3B               V33=   QOLBE1A
      V34= QOLBE1BV35=         QOLBE1C               V36=   QOLBE1D
      V37= QOLBE2A.            V38=   QOLBE2B        V39=   QOLBE2C
      V40= QOLBF1AV41=         QOLBF1B               V42=   QOLBF1C
      V43= QOLBF1DV44=         QOLBF1E               V45=   QOLBF1F
      V46= QOLBF1GV47=         QOLBF1H               V48=   QOLBF1I
      V49= QOLBF1JV50=         QOLBF1K               V51=   QOLBF1L
      V52= QOLBF1MV53=         QOLBF1N               V54=   QOLBF2
      V55= QOLBF3 V56=         QOLBF3A.              V57=   QOLBF4A
      V58= QOLBF4BV59=         QOLBF4C               V60=   QOLBF4D
      V61= QOLBF4EV62=         QOLBF5A               V63=   QOLBF5B
      V64= QOLBF5CV65=         QOLBG1 V66=           QOLBG2
      V67= QOLBG3 V68=         QOLBG4A               V69=   QOLBG4B
      V70= QOLBG5AV71=         QOLBG5B               V72=   QOLBG5C
      V73= QOLBH1AV74=         QOLBH1B               V75=   QOLBH2
      V76= QOLBH3AV77=         QOLBH3B               V78=   QOLBH3C
      V79= QOLBI1 V80=         QOLBI2A               V81=   QOLBI2B
      V82= QOLBI2CV83=         QOLBJ1 V84=           BTIMEE1

      V85= BTIMEE2;
```

```
/********** CREATE QOLI SUBJECTIVE SCALES **********/

QLGLS = MEAN(QOLBA1, QOLBJ1);

QLLIV = MEAN(QOLBB4A, QOLBB4B, QOLBB4C);

QLDAILY = MEAN(QOLBC3A, QOLBC3B, QOLBC3C, QOLBC3D);

QLFAM = MEAN(QOLBD3A, QOLBD3B);

QLSOC = MEAN(QOLBE2A, QOLBE2B, QOLBE2C);

QLFIN = MEAN(QOLBF5A, QOLBF5B, QOLBF5C);

QLJOB = MEAN(QOLBG5A, QOLBG5B, QOLBG5C);

QLSAFE = MEAN(QOLBH3A, QOLBH3B, QOLBH3C);

QLHEALTH   MEAN(QOLBI2A, QOLBI2B, QOLBI2C);


/********** CREATE QOLI OBJECTIVE SCALES **********/

DAILYACT = MEAN(QOLBC1A, QOLBC1B, QOLBC1C, QOLBC1D, QOLBC1E, QOLBC1F,
     QOLBC1G, QOLBC1H);

FAMCON = MEAN(QOLBD1, QOLBD2);

SOCREL = MEAN(QOLBE1A, QOLBE1B, QOLBE1C, QOLBE1D);

FINADQ = MEAN(QOLBF4A, QOLBF4B, QOLBF4C, QOLBF4D, QOLBF4E);

RUN;
```

```
*************************************************************************
*     PROGRAM THAT READS RAW DATA FROM THE FULL QOLI, COMPUTES    *
*     QOLI SCALES, AND CREATES A PERMANENT SPSS DATASET           *
*************************************************************************

DATA LIST FILE='FULLQOL.DAT'
 /V1 1-2       V2 3-4       V3 5         V4 6-7         V5  8-9

  V6 10-11     V7 12-13     V8 14        V9 15-16       V1O 17-18

  V11 19-20    V12 21       V13 22       V14 23         V15 24
  V16 25-26    V17 27       V18 28       V19 29         V20 30
  V21 31       V22 32-33    V23 34       V24 35-36      V25 37-38
  V26 39-40    V27 41-42    V28 43-44    V29 45-46      V30 47-48
  V31 49-5O    V32 51-52    V33 53-54    V34 55         V35 56
  V36 57       V37 58       V38 59       V39 60         V40 61
  V41 62       V42 63       V43 64       V44 65         V45 66
  V46 67       V47 68       V48 69       V49 70         V50 71
  V51 72       V52 73       V53 74       V54 75         V55 76
  V56 77       V57 78       V58 79       V59 80
 /V60 1
  V61 2        V62          3 V63        4              V64 5    V65 6
  V66 7        V67          8 V68        9              V69 10   V70 11
  V71 12       V72 13       V73 14       V74 15         V75 16
  V76 17       V77 18       V78 19       V79 20         V80 21
  V81 22       V82 23       V83 24       V84 25         V85 26
  V86 27       V87 28       V88 29       V89 30         V90 31
  V91 32       V92 33       V93 34       V94 35         V95 36
  V96 37       V97 38       V98 39       V99 40         V100 41
  V101 42      V102 43      V103 44      V104 45        V105 46
  V106 47-50   V107 51      V108 52      V109 53-56     V110 57-60
  V111 61      V112 62      V113 63      V114 64        V115 65
  V116 66      V117 67      V118 68      V119 69        V120 70
  V121 71      V122 72      V123 73      V124 74        V125 75
  V126 76-77
 /V127 1-2     V128 3-4        V129 5-7        V130 8      V131 9
  V132 10      V133 11         V134 12-14      V135 15-17
  V136 18-20   V137 21         V138 22-23      V139 24     V140 25

  V141 26      V142 27         V143 28         V144 29     V145 30
  V146 31      V147 32         V148 33         V149 34     V150 35
  V151 36      V152 37         V153 38         V154 39     V155 40
  V156 41      V157 42         V158 43-44      V159 45-47
  V160 48      V161 49         V162 50         V163 51     V164 52
  V165 53      V166 54         V167 55         V168 56     V169 57
  V170 58      V171 59         V172 60         V173 61
  V174 62-63   V175 64-65
```

```
********* ASSIGN MISSING VALUES *********

MISSING VALUES V3 V8 V12 TO V15 V17 TO V21 V23 V34 TO V105 V107
      V108 V111 TO V125 V130 TO V133 V137 V139 TO V157 V160 TO V173
      (9)/
      V1 V2 V4 V5 V6 V7 V9 V10 V11 V16 V22 V24 TO V33 V126 V127 V128
      V138 V158 V174 V175 (99)/
      V129 V134 V135 V136 V159 (999)/
      V106 V109 V110 (9999).

********* RENAME VARIABLES *********

RENAME
      (V1 =       TIMEB1)       (V2=   TIMEB2)         (V3=   QOLA1)
      (V4 =       QOLA2A)       (V5=   QOLA2B)         (V6=   QOLA2C)

      (V7 =       QOLA3)        (V8=   QOLA4)          (V9=   QOLA5A)

      (V10=       QOLA5B)       (V11=  QOLA6)          (V12=  QOLA7)
      (V13=       QOLA8)        (V14=  QOLA9)          (V15=  QOLA10)
      (V16=       QOLA11)       (V17=  QOLA12)         (V18=  QOLA13)
      (V19=       QOLA14)       (V20=  QOLA15)         (V21=  QOLB1)

      (V22=       QOLC1)        (V23=  QOLC2)          (V24=  QOLC3A)
      (V25=       QOLC3B)       (V26=  QOLC3C)         (V27=  QOLC3D)
      (V28=       QOLC3E)       (V29=  QOLC3F)         (V30=  QOLC3G)
      (V31=       QOLC3H)       (V32=  QOLC3I)         (V33=  QOLC4)

      (V34=       QOLC5A)       (V35=  QOLC5B)         (V36=  QOLC5C)
      (V37=       QOLC5D)       (V38=  QOLC6)          (V39=  QOLC7A)
      (V40=       QOLC7B)       (V41=  QOLC7C)         (V42=  QOLC7D)
      (V43=       QOLC7E)       (V44=  QOLC7F)         (V45=  QOLC8A)
      (V46=       QOLC8B)       (V47=  QOLC8C)         (V48=  QOLC8D)
      (V49=       QOLC8E)       (V50=  QOLC8F)         (V51=  QOLD1A)
      (V52=       QOLD1B)       (V53=  QOLD1C)         (V54=  QOLD1D)
      (V55=       QOLD1E)       (V56=  QOLD1F)         (V57=  QOLD1G)
      (V58=       QOLD1H)       (V59=  QOLD1I)         (V60=  QOLD1J)
      (V61=       QOLD1K)       (V62=  QOLD1L)         (V63=  QOLD1M)
      (V64=       QOLD1N)       (V65=  QOLD10)         (V66=  QOLD1P)
      (V67=       QOLD2)        (V68=  QOLD3A)         (V69=  QOLD3B)
      (V70=       QOLD3C)       (V71=  QOLD3D)         (V72=  QOLD3E)
      (V73=       QOLD3F)       (V74=  QOLE1)          (V75=  QOLE2)
      (V76=       QOLE3A)       (V77=  QOLE3B)         (V79=  QOLE3C)
      (V79=       QOLE3D)       (V80=  QOLF1A)         (V81=  QOLF1B)
      (V82=       QOLF1C)       (V83=  QOLF1D)         (V84=  QOLF1E)

      (V85=       QOLF1F)       (V86=  QOLF2A)         (V87=  QOLF2B)
      (V88=       QOLF2C)       (V89=  QOLF2D)         (V90=  QOLF2E)
      (V91= QOLF2F)             (V92= QOLG1A)          (V93= QOLG1B)
      (V95= QOLG1C)             (V95= QOLG1D)          (V96= QOLG1E)
      (V97= QOLG1F)             (V98= QOLG1G)          (V99= QOLG1H)
      (V100= QOLG1I)            (V1O1= QOLG1J)         (V102= QOLG1K)
           (VI03= QOLG1L)       (V104= QOLG1M)            (V105= QOLG1N)
           (V106= QOLG2)        (V107= QOLG2A)            (V108= QOLG2B)
           (V109= QOLG2C)       (V110= QOLG3)             (V111= QOLG3A)
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          (V112= QOLG4)        (V113= QOLG4A)          (V114= QOLG5A)
          (Vll5= QOLG5B)       (V116= QOLG5C)          (V117= QOLG5D)
          (V118= QOLG5E)       (V119= QOLG5F)          (V120= QOLG6A)
          (V121= QOLG6B)       (V122= QOLG6C)          (V123= QOLG6D)
          (V124= QOLH1)        (V125= QOLH2)           (V126= QOLH3)
          (V127= QOLH3A)       (V128= QOLH3B)          (V129= QOLH4)
          (V130= QOLH5)        (V131= QOLH6)           (V132= QOLH7)
          (V133= QOLH8)        (V134= QOLH9)           (V135= QOLH10A)
          (V136= QOLH10B)      (V137= QOLH11)          (V138= QOLH12)
          (V139= QOLH13)       (V140= QOLH14)          (V141= QOLH15)
          (V142= QOLH16A)      (V143= QOLH16B)         (V144= QOLH17A)
          (V145= QOLH17B)      (V146= QOLH17C)         (V147= QOLH17D)
          (V148= QOLH17E)      (V149= QOLH18)          (V150= QOLH19)
          (V15l= QOLH20)       (V152= QOLH21)          (V153= QOLH22A)
          (V154= QOLH22B)      (V155= QOLH22C)         (V156= QOLI1A)
          (V157= QOLI1B)       (V158= QOLI2)           (V159= QOLI3)
          (V160= QOLI4A)       (V161= QOLI4B)          (V162= QOLI4C)
          (V163= QOLI4D)       (V164= QOLI4E)          (V165= QOLJ1)
          (V166= QOLJ2)        (V167= QOLJ3A)          (V168= QOLJ3B)
          (V169= QOLJ3C)       (V170= QOLJ3D)          (V171= QOLJ3E)
          (V172= QOLJ3F)       (V173= QOLK1)           (V174= TIMEE1)
          (V175= TIMEE2).

********** CREATE QOLI SUBJECTIVE SCALES **********

QLGLS = MEAN(QOLB1, QOLK1).

QLLIV = MEAN(QOLC7A, QOLC7B, QOLC7C, QOLC7D, QOLC7E, QOLC7F).

QLDAILY = MEAN(QOLD3A, QOLD3B, QOLD3C, QOLD3D, QOLD3E, QOLD3F).

QLFAM = MEAN(QOLE3A, QOLE3B, QOLE3C, QOLE3D).

QLSOC = MEAN(QOLF2A, QOLF2B, QOLF2C, QOLF2D, QOLF2E, QOLF2F).

QLFIN = MEAN(QOLG6A, QOLG6B, QOLG6C, QOLG6D).

QLJOB = MEAN(QOLH17A, QOLH17B, QOLH17C, QOLH17D, QOLH17E, QOLH17F).

QLSCHOOL = MEAN(QOLH22A, QOLH22B, QOLH22C).

QLSAFE = MEAN(QOL14A, QOLI4B, QOLI4C, QOLI4D, QOLI4E).

QLHEALTH = MEAN(QOLJ3A, QOLJ3B, QOLJ3C, QOLJ3D, QOLJ3E, QOLJ3F).
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********** CREATE QOLI OBJECTIVE SCALES **********

DAILYACT = MEAN(QOLD1A, QOLD1B, QOLD1C, QOLD1D, QOLD1E, QOLD1F, QOLD1G,
     QOLD1H, QOLD1I, QOLD1J, QOLD1K, QOLD1L, QOLD1M, QOLD1N, QOLD1O,
     QOLD1P).

FAMCON = MEAN(QOLE1, QOLE2).

SOCREL = MEAN(QOLF1A, QOLF1B, QOLF1C, QOLF1D, QOLF1E, QOLF1F).

FINADQ = MEAN(QOLG5A, QOLG5B, QOLG5C, QOLG5D, QOLG5E, QOLG5F).

** SAVE ORIGINAL VARIABLES AND CREATED QOL SCALES INTO AN SPSS **
************SYSTEM FILE******************

SAVE OUTFILE = 'FULLQOL.SFX'.

FIN.
```

```
*************************************************************************
*     PROGRAM THAT READS RAW DATA FROM THE BRIEF QOLI, COMPUTES   *
*     QOLI SCALES, AND CREATES A PERMANENT SPSS DATASET           *
*************************************************************************

DATA LIST FILE='BRIEFQOL.DAT'
 /V1 1-2       V2 3-4       V3 5         V4 6-7         V5   8-9

  V6 10-11     V7 12-13     V8 14-15     V9 16-17       V10 18-19

  V11 20-21    V12 22-23    V13 TO V53 24-64            V54 65-68

  V55 69-72    V56 73       V57 74       V58 75         V59 76
  V60 77       V61 78       V62 79       V63 80

 /V64 1         V65 2
  V66 3-4     V67 5-7      V68 8-10     V69 11-13      V70 14
  V71 15      V72 16       V73 17       V74 18         V75 19-20
  V76 TO V83 21-28         V84 29-30    V85 30-31


********** ASSIGN MISSING VALUES **********

MISSING VALUES V3 V13 TO V53 V56 TO V65 V70 V71 V72 V73 V74 V76 TO V83 (9)/
  V1 V2 V4 TO V12 V66 V75 V84 V85 (99)/
  V67 V68 V69 (999)/
  V54 V55 (9999).


********** RENAME VARIABLES **********

RENAME
     (V1 =       BTIMEB1)      (V2=   BTIMEB2)       (V3=   QOLBA1)
     (V4 =       QOLBB1)       (V5=   QOLBB2A)       (V6=   QOLBB2B)
     (V7 =       QOLBB2C)      (V8=   QOLBB2D)       (V9=   QOLBB2E)
     (V10=       QOLBB2F)      (V11=  QOLBB2G)       (V12=  QOLBB3)
     (V13=       QOLBB4A)      (V14=  QOLBB4B)       (V15=  QOLBB4C)
     (V16=       QOLBC1A)      (V17=  QOLBC1B)       (V18=  QOLBC1C)
     (V19=       QOLBC1D)      (V20=  QOLBC1E)       (V21=  QOLBC1F)
     (V22=       QOLBC1G)      (V23=  QOLBC1H)       (V24=  QOLBC2)
     (V25=       QOLBC3A)      (V26=  QOLBC3B)       (V27=  QOLBC3C)
     (V28=       QOLBC3D)      (V29=  QOLBD1)        (V30=  QOLBD2)
     (V31=       QOLBD3A)      (V32=  QOLBD3B)       (V33=  QOLBE1A)
     (V34=       QOLBE1B)      (V35=  QOLBE1C)       (V36=  QOLBE1D)
     (V37=       QOLBE2A)      (V38=  QOLBE2B)       (V39=  QOLBE2C)
     (V40=       QOLBF1A)      (V41=  QOLBF1B)       (V42=  QOLBF1C)
     (V43=       QOLBF1D)      (V44=  QOLBF1E)       (V45=  QOLBF1F)
     (V46=       QOLBF1G)      (V47=  QOLBF1H)       (V48=  QOLBF1I)
     (V49=       QOLBF1J)      (V50=  QOLBF1K)       (V51=  QOLBF1L)
     (V52=       QOLBF1M)      (V53=  QOLBF1N)       (V54=  QOLBF2)
     (V55=       QOLBF3)       (V56=  QOLBF3A)       (V57=  QOLBF4A)
     (V58=       QOLBF4B)      (V59=  QOLBF4C)       (V60=  QOLBF4D)
     (V61=       QOLBF4E)      (V62=  QOLBF5A)       (V63=  QOLBF5B)
     (V64=       QOLBF5C)      (V65=  QOLBG1)        (V66=  QOLBG2)
     (V67=       QOLBG3)       (V68=  QOLBG4A)       (V69=  QOLBG4B)
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      (V70=       QOLBG5A)      (V71=  QOLBG5B)        (V72=  QOLBG5C)
      (V73=       QOLBH1A)      (V74=  QOLBH1B)        (V75= QOLBH2)
      (V76=       QOLBH3A)      (V77=  QOLBH3B)        (V78=  QOLBH3C)
      (V79=       QOLBI1)       (V80=  QOLBI2A)        (V81=  QOLBI2B)
      (V82=       QOLBI2C)      (V83=  QOLBJ1)         (V84=  BTIMEE1)
      (V85=       BTIMEE2).

********** CREATE QOLI SUBJECTIVE SCALES **********

QLGLS = MEAN(QOLBA1, QOLBJ1).

QLLIV = MEAN(QOLBB4A, QOLBB4B, QOLBB4C).

QLDAILY = MEAN(QOLBC3A, QOLBC3B, QOLBC3C, QOLBC3D).

QLFAM = MEAN(QOLBD3A, QOLBD3B).

QLSOC = MEAN(QOLBE2A, QOLBE2B, QOLBE2C).

QLFIN = MEAN(QOLBF5A, QOLBF5B, QOLBF5C).

QLJOB = MEAN(QOLBG5A, QOLBG5B, QOLBG5C).

QLSAFE = MEAN(QOLBH3A, QOLBH3B, QOLBH3C).

QLHEALTH = MEAN(QOLBI2A, QOLBI2B, QOLBI2C).


********** CREATE QOLI OBJECTIVE SCALES **********

DAILYACT = MEAN(QOLBC1A, QOLBC1B, QOLBC1C, QOLBC1D, QOLBC1E, QOLBC1F,
     QOLBC1G, QOLBC1H).

FAMCON = MEAN(QOLBD1, QOLBD2).

SOCREL = MEAN(QOLBE1A, QOLBE1B, QOLBE1C, QOLBE1D).

FINADQ = MEAN(QOLBF4A, QOLBF4B, QOLBF4C, QOLBF4D, QOLBF4E).


** SAVE ORIGINAL VARIABLES AND CREATED QOL SCALES INTO **
*************** AN SPSS SYSTEM FILE ******************

SAVE OUTFILE = 'BRIEFQOL.SFX'.

FIN.
```

Section IV

USE OF THE QUALITY OF LIFE INTERVIEW

Use of the Quality of Life Interview

Beyond the sociologic purpose of simply describing the quality of life of persons with SPMI, the Lehman QOLI instruments can prove useful in assessing needs, developing intervention strategies, and evaluating outcomes of interventions at both the system and individual levels.

At the system or policy level, the development of services and the deployment of resources must derive from a clear understanding of the needs of those being served and the priorities of these needs. Regarding system planning for persons with SPMI, QOL assessment provides important information about how persons in the target population are experiencing their current life circumstances (not just their health status) and permits some estimation about the priorities that they place upon these needs (*10, 18, 19*). Such information is vital for planning within service system areas for the psychiatric, medical, rehabilitation, and supportive services for these persons (*2*). Although the ultimate allocation of resources must take into account the needs and perceptions of multiple constituencies (*e.g., families, providers, and communities*), a client-based QOL assessment provides the opportunity for systematic input from service consumers who often lack access to this decision-making process. Also at the system level, QOL assessment can provide on-going feedback from these consumers about the outcomes of services and thus influence the further development of services and resource allocation.

At the individual level, QOL assessment can similarly be used to assess needs and to monitor the impact of treatment interventions and services. QOL assessments have been used as a guide for on-going treatment planning (*20, 21*). Others have discussed the use of QOL assessment in the context of on-going psychopharmacology for persons with SPNH (*22, 23*). Lieberman (*24*) has proposed that in a rehabilitation context, QOL assessments can be used to identify those life areas in which an individual is most dissatisfied and therefore may be most fruitful to address in a behavioral treatment program. Finally, Oliver and colleagues (*21*) have adapted the Lehman QOLI for use in developing and assessing case management services.

A common dilemma encountered in the assessment of quality of life among persons with SPMI is that at times their perceived quality of life differs from what social norms would predict. For example, a person with SPMI who is living in what appears to be sub-standard housing may express satisfaction with this living situation. Although such counterintuitive QOL results frequently raise concerns about the reliability or validity of their QOL assessments, the fact is that the psychometric properties of the better QOL measures for persons with SPMI described above are comparable to those in the general populations (*25*).

Assuming that such intuitively inconsistent QOL findings are not simply a product of poor measurement, they may offer valuable information for clinical and service intervention. Counterintuitive QOL results may reflect idiosyncratic views and values of persons experiencing SPMI and should affect the clinician's approach to service planning. Clients are unlikely to be motivated to change circumstances with which they are content even if the clinician and family feel otherwise. Conversely, failure to address an area of life with which a client is dissatisfied, even though the clinician and family view the client's circumstances as satisfactory, can adversely affect the treatment alliance with the client. Such disagreements about QOL may signal the need for a period of negotiation regarding treatment and service goals. Such findings also may represent clients' accommodation to adverse circumstances. Individuals who have lived with adversity for extended periods of time may report relative positive life satisfaction. Their satisfaction reflects an accommodation to their circumstances and does not necessarily mean that they would not seek changes in their lives if offered the hope and opportunity for such changes. Conversely, interventions that promote positive change, for example, vocational rehabilitation or a

novel antipsychotic medication (*e.g. clozapine*), may produce transient decreases in life satisfaction in response to change and the renewed awareness that their lives could be better. Such possibilities form the basis for caution and more thoughtful consideration about how we expect interventions to affect QOL. All of these formulations should be tested in future research.

Section V

ARTICLES RELATED TO THE QOLI

Convergent validation of quality of life assessments for persons with severe mental illnesses

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The impact of interventions on the quality of life (QOL) experienced by persons with severe and persistent mental illnesses (SPMI) has attracted considerable political, clinical and research attention over the past decade, and continues to do so. This study examines the convergent validity of two commonly used Q0L measures for this group of patients, the Lehman Quality of Life Interview and the Heinrichs-Carpenter Quality of Life Scale, computing the correlations between comparable constructs from the two measures administered at the same time and 2 months apart. Correlations were positive and significant although low to moderate in magnitude. Considering the considerable differences in the methods of assessment employed by the two measures, the lack of precise congruence between their constructs, and the 2-month time interval, these findings support their convergent validity. Various conceptual issues regarding the validity and interpretation of 420L assessments for persons with SPMI are discussed.

Key words: Mental health, outcomes research, quality of life, reliability and validity.

Severe and persistent mental illnesses (SPMI) afflict approximately 1% of the American population.[1] These disorders impose severe hardships on patients and their families and challenge society in the development of public policies that both preserve the public welfare and afford patients a decent quality of life (QOL). Among the various conceptual challenges inherent in evaluating services for persons with SPMI has been the development of appropriate outcome measures reflecting the broad range of problems faced by these patients.[2,3] The concept of QOL has gained prominence in this regard[4,5] and most evaluations of interventions for persons with SPMI now include some QOL measure. The new NIMH research plan on SPMI, Caring for Persons with Servere Mental Illness, identifies QOL as one of the major outcome areas to be assessed in new research efforts.[6] The purpose of this study is to assess the convergent validity of two commonly used measures of QOL for persons with SPMI.

During the past decade considerable work has gone into the development of QOL measures for persons with SpMI.[7] However, certain questions remain as to the psychometric properties of QOL measures. In particular, there is concern that because most of these measures rely on patient self-report, they are particularly prone to validity problems. On the other hand, certain core components of QOL may only be measured through self-report, e.g. life satisfaction. Investigators have examined the validity of QOL measures. Construct validity of certain QOL measures has been assessed through the development of univariate and multivariate correlational models relating various aspects of quality of life to general well-being among persons with SPMI.[5,8] Such models for persons with SPMI produce results comparable to those found among the general population.[9] Others have examined the predictive validity of QOL measures by comparing QOL self-reports among different subgroups of patients with SPMI[10-12] whose QOL should vary according to differences in their life circumstances. To date no investigators have compared results obtained from alternative QOL measures for this population, a form of convergent validity.

Among the more widely used QOL measures for the SPMI are the Lehman Quality of Life Interview

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(QOLI)[13] and the Quality of Life Scale (QLS).[14] These instruments differ considerably in their approach to assessing QOL. The Lehman QOLI is a structured self-report interview, conducted by a trained non-clinical interviewer, and elicits patients' ratings of their QOL. The Heinrichs–Carpenter QLS is a semi-structured clinical interview in which a trained clinician rates the patient's QOL based upon the patient's self-report and the clinician's professional judgement about the patient's functioning and life circumstances. This report compares results of QOL assessments obtained by patient self-report from the QOLI with clinician assessments from the QLS. It tests the hypothesis that comparable QOLI and QLS scales will be correlated (convergent validity hypothesis). The QLS was chosen as the comparison measure because it is based on a semi-structured clinical interview and emphasizes the clinician's clinical judgement about the patient's quality of life. This choice allowed the evaluation of the common concern that patients' perceptions about their quality of life diverge considerably from those of professionals, thus raising questions about validity.

Method

Overview

The opportunity for this validation study arose in the context of the National Evaluation of the Robert Wood Johnson Foundation Program on Chronic Mental Illness. This large demonstration project, funded by the Robert Wood Johnson Foundation, the National Institute of Mental Health, and the Department of Housing and Urban Development, established and evaluated the impact of local mental health authorities on services and outcomes for persons with SPML It has been described elsewhere,1 and details of the larger evaluation are not germane to the psychometric study presented here. While this large scale study provided the opportunity for this validation study, the design of the larger study also constrained certain aspects of this smaller study with regard to sample selection, test-retest time, and the inability to. administer the full QOLI and QLS at the same time points.

Subjects

Subjects for this study were recruited from the first wave of patient cohorts in the RWJ National Evaluation. Entry criteria for the National Evaluation specified patients who either had been admitted for an episode of acute in-patient care (up to 120 days length of stay) or who received special Section 8 housing certificates (non-entitlement housing subsidies for income-eligible households), and who were aged 18–64, English speaking and legally competent. They had a diagnosis of schizophrenia or dementia or met additional criteria for persistent mental illness and disability.[1] The subjects comprising the validation sample (n = 59) were those who participated in a 2-month posthospitalization follow-up evaluation, and who agreed to be reinterviewed for validation purposes during a subsequent 2-month period. The sample was 53.4% male, 44.8% Caucasian, and 53.4% African–American. Over half (58.6%) had never married, 22.4% were separated, 15.5% divorced and 3.4% were widowed. The ages of the respondents ranged from 20 to 64 with a mean of 38.1 years (SD = 10.3). Number of years in school ranged from 3 to 16 with a mean of 11 (SD = 2.4)

Data collection

Data used in the analyses for this study were collected at two points in time. Initial data were obtained through the RWJ Client Outcome Interview conducted at the regular 2-month post-hospitalization follow-up point for the National Evaluation. This interview was administered by a trained, non-clinical survey interviewer. At the end of the interview, signed informed consent was obtained from subjects who agreed to participate

in the validation study. These respondents were reinterviewed within 2 months following the first interview. These second interviews were conducted by trained research clinicians (a psychiatrist and a social worker).

Measures

The entire QOLI[13] was used in the original RWJ evaluation. Only those scales and items from the QOLI which correspond conceptually to the scales and items in the QLS[14] were repeated in the validation re-interview. The entire QLS was completed in the validation phase.

Lehman Quality of Life Interview:[13] The Lehman assesses the life circumstances of persons with severe mental illnesses both in terms of what they actually do and experience ('objective' quality of life) and their feelings about these experiences ('subjective' quality of life or life satisfaction). The interview provides a broad based assessment of the objective and subjective QOL in several life areas, including living situation, family relations, social relations, daily activities, finances, safety and legal problems, work and school and health, (as well as religion and neighbourhood in some versions). It is a structured self-report interview administered by trained lay interviewers, consists of 143 items, and requires approximately 45 min to administer.

The life satisfaction items in the interview utilize a fixed interval scale, originally developed in a national survey of the quality of American life.[15] The objective QOL indicators are of two types: measures of functioning (e.g., frequency of social contacts or daily activities) and measures of access to resources and opportunities (e.g., income support or housing type). These QOL indicators include both individual items (e.g., monthly income support) and scaled (e.g., frequency of social contacts).

The psychometric properties of the QOLI have been extensively assessed. Internal consistency reliabilities range from 0.79 to 0.88 (median = 0.85) for the life satisfaction scales, and from 0.44 to 0.82 (median = 0.68) for the objective quality of life scales. These reliabilities have been replicated in two separate studies of persons with severe mental illnesses.[13] Test-retest reliabilities (1 week) have also been assessed for the QOLI: life satisfaction scales, 0.41–0.95 (median = 0.72); objective quality of life scales, 0.29–0.98 (median = 0.65). Construct and predictive validity were assessed as good by confirmatory factor analyses and multivariate predictive models.[5] The QOLI also differentiates between patients living in hospitals and supervised community residential programmes in the USA and Britain.[11,16] Individual life satisfaction items clearly discriminate between persons with severe mental illness and the general population.[2] Further construct validation has been assessed in studies of the predictors of QOL among day treatment patients in Britain.[17] and the relationship between QOL and feelings of empowerment among persons with severe mental illnesses in the USA.[18] A variety of methodological papers have explored other issues, such as the relationship between quality of life and clinical symptoms,[19] gender and age,[15] and housing type.[12,20]

The QOLI measures repeated in this validation study were selected because they most closely approximate the constructs measured by the QLS. The following scales were used: General Life Satisfaction scale, Satisfaction with Family Relations, Satisfaction with Social Relations, Frequency of Family Contact, Frequency of Social Contact, Daily Activities Scale, and the item 'Have you worked in the past year'.

Heinrichs–Carpenter Quality of Life Scale:[14] The QLS was developed to assess the deficit syndrome in patients with schizophrenia. It is a semi-structured interview rated by trained clinicians. Its 21 items are rated on fixed interval scales based upon the interviewer's judgement of the patient's functioning in each of the 21 areas.

The interview requires approximately 45 min. The 21 items are as follows: (1) Household, (2) Friends, (3) Acquaintances, (4) Social Activity, (5) Social Network, (6) Social Initiative, (7) Withdrawal, (8) Sociosexual, (9) Occupational Role, (10) Work Functioning, (11) Work Level, (12) Work Satisfaction, (13) Sense of Purpose, (14) Motivation, (15) Curiosity, (16) Anhedonia, (17) Aimless Inactivity, (18) Commonplace Objects. (19) Commonplace Activities, (20) Empathy and (21) Emotional Interaction. These items reduce to four scales: Interpersonal Relations (items 1–8), Instrumental Role (items 9–12), Intrapsychic Foundations (items 13–17, 20, 21), and Total Score (items 1–21). The inter-rater reliabilities reported in the literature on conjointly conducted interviews range from 0.84 to 0.97 on summary scales. Individual item intraclass correlations range from 0.5 to 0.9. The full QLS was used in the validation study; however, only some of the scales and items have content comparable to items and scales in the QOLI. Therefore for the convergent validity analysis, we used only the following QLS scales and items: Intrapsychic Foundations (comparable to General Life Satisfaction in the QOLI), Interpersonal Relations (comparable to Satisfaction with Family, Satisfaction with Social Relations, Frequency of Family Contact, and Frequency of Social Contact), Commonplace Activities (comparable to Daily Activitites), and Occupational Role Functioning (comparable to 'Have you worked in the past year').

Psychiatric Symptom Measures: To provide a benchmark against which to relate the convergent validity of these two QOL measures, we also included two standard measures of psychiatric symptoms in this validation study, three scale from the Symptom Checklist-90 (SCL-90)[21] and the Brief Psychiatric Rating Scale (BPRS).[22] The SCL-90 was used in the original RWJ evaluation, and the BPRS was used in the validation re-interview.

Statistical analyses

Convergent validity can be demonstrated by the correlation between two scales measuring the same constructs.23 In this study Pearson correlation coefficients were calculated between the QOLI scales in the original survey and measures of similar constructs from the QLS administered 2 months later. In addition, certain QOLI scales/ items were repeated at the 2-month validation point, thus providing an evaluation of convergent validity with the QLS when the effect of time between measurements was eliminated. Convergence of measures was considered low if the correlation was ‹ 0.35 and moderate if in the range 0.35–0.50. Finally, test-retest correlations were derived to assess the stability of the repeated QOLI measures.

Results

Symptornatology

Among the three symptom scales included in the original RWJ client interview, the SCL-Depression and SCL-Paranoia scales showed moderate and significant correlations after the 2-month interval with their corresponding scales from the BPRS, the validation symptom scale (see Table 1). The SCL-Psychoticism scale did not correlate with the BPRS-Thought Disorder scale.

Subjective quality of life

General Life Satisfaction from the QOLI demonstrated low, but significant convergence with a related construct, Intrapsychic Foundations, from the QLS when the two were measured 2 months apart. When administered at the same time, their validity coefficient increased somewhat (see Table 1). The test-retest correlation for the QOLI-General Life Satisfaction measure during the same interval was moderate and significant (see Table 2). The 2-month convergent validity coefficients for the QOLI scales, Satisfaction with Family Relations

Table 1. Convergent validity of symptom and quality of life measures

Construct/measures	Convergent validity	
	2 months	Same Time
Symptoms		
Psychotic symptoms		
Psychoticism (SCL)		
Thought Disorder (BPRS)	0.14	
Paranoid symptoms		
Paranoid Ideation (SCL)		
Hostility (BPRS)	0.49***	
Depressive symptoms		
Depression (SCL)		
Depression (BPRS)	0.51***	
Subjective quality of life		
General Well-Being		
General Life Satisfaction(QOLI)		
Intrapsychic Foundations (QLS)	0.26*	0.38**
Interpersonal relations		
Satisfaction with Family Relations (QOLI)		
Interpersonal Relations Scale (QLS)	0.33*	
Satisfaction with Social Relations (QOLI)		
Interpersonal Relations Scale (QLS)	0.43***	
Objective quality of life		
Interpersonal Relations		
Frequency of Family Contact (QOLI)		
Interpersonal Relations Scale (QLS)	0.23+	0.34*
Frequency of Social Contact (QOLI)		
Interpersonal Relations Scale (QLS)	0.47**	0.75**
Activities		
Daily Activities (QOLI)		
Participation in commonplace activities (QLS)	0.52***	0.63***
Instrumental Role Functioning		
Have you worked in the past year? (QOLI)		
Occupational role functioning (QLS)	0.27	

*** $p < 0.001$, ** $p < 0.01$; * $p < 0.05$; + $p < 0.10$

and Satisfaction with Social Relations, with their corresponding QLS measure, Interpersonal Relations Scale, were comparable to the finding for the measures of general well-being (see Table I).

Objective quality of life

Three measures of objective quality of life from the QOLI, Frequency of Family Contacts, Frequency of Social Relations, and Daily Activities, showed moderate and significant correlations with their corresponding measures on the QLS, Interpersonal Relations and Participation in Commonplace Activities. These correlations were substantially higher when the measures were administered at the same time point rather than 2 months apart. The one QOLI measure of instrumental role functioning from the QOLI, a question about whether the respondent had worked in the past year, showed a low and non-significant correlation after the 2-month interval with the QLS scale,

occupational Role Functioning, a more detailed measure of occupational fuctioning.

Table 2. Test–retest reliability of quality of life measures

Subjective quality of life	
General Well-Being	
General Life Satisfaction	0.57***
Objective quality of life	
Interpersonal Relations	
Frequency of Family Contact	0.75***
Frequency of Social Contact	0.55***
Activities	
Daily Activities	0.52***

*** $p < 0.001$

Discussion

The results lend moderate support to the convergent validity of the quality of life assessments provided by the patients and clinicians in this study. Interpretation of the reported levels of convergence among the measures must take several methodological features of the design into account. First, the QOL instruments used were purposely selected to provide a stringent test of convergence. A variety of QOL measures for persons with SPMI is available.[7] Most of these, including the Lehman QOLL are highly structured patient self-report interviews, which do not permit interviewer judgement in the ratings generated. As previously mentioned, the QLS was chosen as the comparison measure because it emphasizes the clinician's judgement about the patient's quality of life. This allowed us to evaluate the degree to which patients' perceptions about their quality of life diverge from those of professionals. Presumably had we chosen a validation instrument more similar to the QOLI (e.g., the Oregon Quality of Life Scale[10,24] or the Satisfaction with Life Domains Scale[4]) the validation coefficients would have been higher, but such comparisons would have been less informative with regard to the concern about the convergent validity of patients' and clinicians' perceptions.

Second, due to logistical limitations we had a rather long (2 months) interval between the two assessment points, which probably introduced into the analysis additional variance related to true changes in quality of life over time. Supporting this are the findings that when available, the correlations between measures at the same time point were substantially higher than at the 2-month interval. Also the test–retest correlations over the 2-month period for the QOLI scales were in the moderate range (0.52–0.75).

Third, the nature of the underlying constructs assessed by the two instruments was not entirely comparable. For example, the measure of 'general well-being' in the QOLI was General Life Satisfaction whereas the closest corresponding measure in the QLS was Intrapsychic Foundations, which measures 'the patient's sense of purpose, motivation, curiosity, empathy, ability to experience pleasure, and emotional interacting' (reference 14, p. 390). The 2-month and simultaneous correlations between these measures were 0.26 and 0.38, respectively. Similarly the correlation between the occupational measure in the QOLI, which asked simply whether the patient had worked during the past year, did not correlate significantly at the 2-month interval ($r = 0.27$) with the QLS Occupational Role Functioning Scale, which encompasses the clinician's assessment of the patient's 'level of occupational accomplishment, degree of underemployment given the person's talents and opportunities, and satisfaction derived from work' (reference 14, p. 390).

The correlations between the QOLI and QLS measures were higher when there was better correspondence between the presumed underlying constructs. For example, the 2-month correlation between the QOLI Satisfaction with Social Relations Scale and the QLS Interpersonal Relations Scale was 0.43. The 2-month and simultaneous correlations between the QOLI Frequency of Social

Contacts and QLS-Interpersonal Relations Scales were 0.47 and 0.75, respectively.

These considerations underscore that this study provides a conservative estimate of the convergent validity of patients' assessments of their quality of life with clinicians' assessments. It should also be noted that the level of agreement between measures in the two quality of life instruments was comparable to that between the two standardized symptom measures, the SCL-90 and the BPRS. There is thus a basis for optimism about the validity of these quality of life measures.

This interpretation should not, however, obscure legitimate concerns about the validity of quality of life assessments for persons with SPMI. A common dilemma encountered in the assessment of quality of life among persons with SPMI is that at times their perceived quality of life differs from that predicted by social norms. Such counterintuitive QOL results frequently raise concerns about the reliability or validity of their QOL assessments. While such basic psychometric concerns may be reasonable, the fact is that the psychometric properties of the better QOL measures for the SPMI are comparable to those in the general population. Rather than reflecting measurement 'limitations, such intuitively inconsistent QOL findings may offer valuable information for clinical interventions and service planning.

Counterintuitive QOL results may reflect idiosyncratic views and values of persons experiencing SPMI and should affect the clinician's approach to service planning. Patients are unlikely to be motivated to change, circumstances with which they are content, even if the dinician and family feel otherwise. Conversely, failure to address an area of life with which a patient is dissatisfied, even though the clinician and family view the patient's circumstances as satisfactory, can adversely affect the treatment alliance with the patient. Such disagreements about QOL may signal the need for a period of negotiation regarding tratment and service goals.

Counterintuitive QOL findings also may represent patients' accommodation to adverse circumstances. Patients who have lived with adversity for extended periods of time may report relative positive life satisfaction. Their satisfaction reflects an accommodation to their circumstances and does not necessarily mean that they would not seek changes in their lives if offered the hope and opportunity for such changes. Conversely, interventions that promote positive change, for example, vocational rehabilitation or a novel antipsychotic medication (e.g. dozapine), may produce transient decreases in life satisfaction in response to change and the renewed awareness that their lives could be better. Such possibilities form the basis for caution and more thoughtful consideration about how we expect interventions to affect QOL.

In order to advance quality of life assessment for severely mentally ill persons to the point that more scientifically and clinically meaningful applications can be achieved, work is required in several areas. First, we need a clearer definition of quality of life to overcome the disparities in the existing literature. Second, with the adoption of a common definition, there needs to be some agreement about how to measure quality of life. This will allow us to begin to accumulate comparable data across studies and populations. Third, we need a dearer perspective on the quality of life of psychiatrically impaired persons in comparison to other groups, particularly the physically disabled, the general population, and other economically disadvantaged groups. Finally, we need a better understanding about how quality of life varies naturally over time in psychiatric populations, the predictive validity of quality of life measures for subsequent illness course and outcome, and the sensitivity of quality of life measures for detecting treatment effects among these patients.

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QUALITY OF LIFE EXPERIENCES OF THE CHRONICALLY MENTALLY ILL

Gender and Stages of Life Effects

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ABSTRACT

The quality of life experiences of the chronically mentally ill (CMI) have received increasing emphasis in outcome research in recent years. Despite considerable interest in the effects of gender and stage of adult life on quality of life (QOL) experiences in the general population, no attention has been given to whether these demographic variables are related to QOL among the CMI. In a preliminary exploration of this question, this study examines gender and decade of life effects on the QOL experiences of the CMI using data drawn from previous QOL research. Gender and decade of life bear more on objective QOL experiences than upon life satisfaction. However, the data on life satisfaction suggest a difference in midlife psychological adjustment between CMI men and women. These results demonstrate the potential importance of considering gender and life cycle effects on the assessment of QOL among the CMI.

In recent years, the use of quality of life measures for assessing the impact of specified life course changes on the general population has increased (Levinson, 1986; Medley, 1980; Harry, 1976). As a result, our understanding of the relationship between quality of life and the adult life cycle in the general population has grown. A similar understanding of the relationship between quality of life and the stages of adult life for the chronically mentally ill would be beneficial in assessing the impact of illness on their well-being. This, in turn, potentially would help in addressing specific treatment needs of subgroups of these patients. Moreover, evaluations of services for the chronically mentally ill would benefit from a better understanding of how key client characteristics relate to quality of life experiences. Consequently, the purpose of this study was to explore the quality of life of the chronically mentally ill across the adult life cycle. Moreover, because different phases of the life cycle may hold different personal rewards and social consequences for men and women (Medley, 1980; Harry, 1976), gender differences within each age group were examined.

A comprehensive understanding of the determinants of quality of life may be best understood by acknowledging the different social and personal consequences faced during the various stages of the adult life cycle (Levinson, 1986; Diener, 1984; Neugarten, 1979). Previous research completed in this area has demonstrated significant differences between men and women in the general population on life satisfaction across the adult years (Medley, 1980; Spreitzer & Snyder, 1974). Specifically, younger women report greater happiness than do younger men, but older women express less happiness than older men (Diener, 1984; Medley, 1980). This crossover seems to occur around midlife (age 40). Other researchers examining solely men's life satisfaction over the life cycle have demonstrated that life satisfaction increases with the life cycle stages (Harry, 1976).

Researchers also have studied the various determinants of well-being across the life span

(Medley, 1980; Harry, 1976). For men and women in early middle age, family life and standard of living were found to be the only significant predictors of life satisfaction. Health satisfaction made a small contribution to life satisfaction among men of early middle age and became the most powerful determinant in late middle age. Finally, for both men and women, satisfaction with most areas of life tends to improve with age with the exception of health satisfaction, which understandably decreases with age (Campbell, Converse, & Rodgers, 1976).

Whether these patterns also hold for persons with disabling mental disorders remains an entirely unstudied issue. By definition these disorders alter the normal flow of life events, milestones, and transitions in a person's life. Most of these individuals fail to marry or achieve full-time employment, remain at least partially dependent upon their parental families and public supports for much of their adult lives, and have restricted interpersonal relationships (Talbott, 1978). Interest in the variability of experiences with age in this population has been spurred by reports about the troubling, chaotic, and high-risk lives of young adults with chronic mental illnesses (Pepper, 1985; Pepper & Ryglewicz, 1984; Sheets, Prevost, & Reiham, 1982) and long-term studies that have found more positive outcomes among older persons with chronic mental illnesses (McGlashan, 1988). Clearly there is much that we do not understand about the course of life experiences for these persons. The quality of life methodology may yield useful insights into the lives of this disabled population, as it has for the general population (Diener, 1984; Andrews & Withey, 1976; Campbell et al., 1976).

METHOD

The subjects for this analysis were pooled from previous studies of randomly selected samples of chronically mentally ill patients: (a) 99 chronically mentally ill inpatients at a state mental hospital serving an urban and rural area (Lehman, Possidente, & Hawker, 1986); (b) 92 chronically mentally ill residents of various small and medium-sized (4–150-bed capacity), supervised community residences in the same area (Lehman et al., 1986); and (c) 278 mentally ill residents of 30 large board and care homes (50–300-bed capacity) in another major urban area (Lehman, Ward, & Linn, 1982; Lehman, 1983a). All three samples included only patients between the ages of 18 and 65.

All subjects were administered the Quality of Life Interview (Lehman, 1988). This 45-min structured interview for psychiatrically disabled persons assesses objective attributes of quality of life and life satisfaction in eight life domains: living situation, family, social relations, leisure activities, work, finances, personal safety, and health. The objective indicators in each life domain were developed from several available measures of resources and function (Lehman, 1988). For each life domain, a scale is used to assess quantifiable characteristics of life that are commonly accepted as objective indicators of the quality of life. Examples of the scales include: "How often do you see your family?" (family domain), and "How often do you do things with your close friends?" (social relations domain). The domain-specific, life satisfaction scales consist of multiple items, based on previously developed quality of life instruments (Andrews & Withey, 1976). All life satisfaction items are rated on a 7-point scale from "Terrible" to "Delighted." The interview also includes a two-item general life satisfaction scale based upon the same 7-point scale (Andrews & Withey, 1976). The

internal and test–retest reliabilities and construct and predictive validities of these scales have been described in detail elsewhere and meet acceptable psychometric standards (Lehman, 1988).

Because psychiatric symptoms, especially depression and anxiety, have known effects upon ratings of life satisfaction (Lehman, 1983b), assessments of psychiatric symptoms also were completed on all subjects. For samples (a) and (b), psychiatric symptoms were assessed using the Change Version of the Schedule for Affective Disorders and Schizophrenia (SADS-C) (Endicott & Spitzer, 1978). In sample (c) the Rand Health Insurance Study Mental Health Battery (HISMH) was used (Ware, Johnston, Davies-Avery, & Brook, 1979). For the current analyses in which psychiatric symptoms are used as covariates of life satisfaction, it was necessary to transform these symptom ratings to standardized scores to permit pooling across samples. Because these tw-o measures; of psychiatric symptoms assess comparable symptom, domains and have comparable correlations with life satisfaction ratings, they can be considered equivalent measures of current psychiatric symptoms for the purpose of covariance analysis. For this reason the HISMH score distribution of sample (c) was converted to comparable SADS-C scores from samples (a) and (b). The procedure used is given in Allen and Yen (1979). The scores from sample (c) were converted first to percentiles, then to standard scores in the normal distribution (Z scores). Finally, each Z score was converted to a score coming from a distribution with a mean of 3.5 and standard deviation of I to match the characteristics of samples (a) and (b). This permitted statistical control of the effects of these symptoms on life satisfaction ratings.

For data analyses, subjects were grouped according to decade of life: ages 18-25, 26-35, 36-45, 46-55, and 56–65. Multivariate statistical techniques were used to assess the main effects and interactions of age decade and gender on life satisfaction and objective quality of life. Psychiatric symptom ratings were used as covariates in the analyses of life satisfaction. As expected, the mental health symptom rating was significantly correlated with the subjective Quality of Life ratings (see Table 1). However, as was also found in previous work, covarying the effects of mental health symptoms did not alter the original relationship between independent and dependent variables (Lehman, 1983b). That is, the results of analyses conducted with and without the covariate remained essentially the same.

Table 1 Pearson Correlations of Mental Health Symptoms with Quality of Life Indicators

Objective QOL Indicators	r	Subjective QOL Indicators	r
Family contact	.06	Family	-.30[a]
Social relations	-.05	Social relations	-.37[a]
Leisure activities	.08	Leisure	-.41[a]
Currently employed	.00		
Monthly spending	-.05	Finances	-.27[a]
Assaulted/past year	.28[a]	Living situation	-.36[a]
Robbed/past year	.20[a]	Safety	-.37[a]
Psychiatric hospital/ past year	.15[b]	Health	-.49[a]
Jail/past year	.09[c]	Global life	-.47[a]

Note:

QOL = Quality of life. [a]p = .0001. [b]p = .001. [c]$p < .05$.

RESULTS

Life Satisfaction

A 5 x 2 (decade x gender) multivariate analysis of covariance (MANCOVA) was performed. The dependent variables were subjects' ratings of life satisfaction, adjusted for levels of psychiatric symptoms, on eight life domains. The MANCOVA revealed no significant effects for decade [Wilk's criterion = .90; F(4, 413) = 1.40, $p > .05$] or for gender [Wilk's criterion = .97; F(4, 413) = 1.25, $p > .05$]. The combined dependent variables, however, showed a significant decade x gender interaction, [Wilk's criterion = .88; F(4, 413) = 1.58, $p < .05$]. To inspect this effect more precisely, univariate analyses of covariance were conducted on each of the dependent variables. Note that although conducting multiple univariate F tests increases the probability of type I error, this method of analysis is recommended by Tabachnick and Fidell (1983). Moreover, because the dependent variables are correlated, the univariate Fs are not independent, thus making no straightforward adjustment of the error rate possible.

The results of the univariate analyses demonstrated significant decade x gender interactions on the variables of health satisfaction [F(4, 413) = 2.81, $p < .05$], satisfaction with leisure [F(4, 413) = 4.31, $p < .01$], and global life satisfaction [F(4, 413) = 2.99, $p < .05$] (see Table 2).

Further breakdown of the interaction on the variable of health satisfaction demonstrated that although women between the ages of 26 and 35 (M = 4.90) and 46 to 55 (M = 5.06) rated the quality of their health significantly greater than did men within the same age groups [respectively, M = 4.58, F(2, 96) = 3.92, $p < .05$; M = 4.62, F(2, 96) = 5.47, $p < .05$], this effect was reversed in the 36 to 45 age group.

Table 2 The Mean Subjective Quality of Life Scores According to Decade and Gender

	Age (Years)				
	15-25	26-35	36-45	46-55	56-65
Men					
Living situation	4.49	4.23	4.53	4.57	4.61
Health	4.91	4.58[a]	4.963	4.628	4.82
Leisure	4.86	4.65	4.96[a]	4.553	4.59[a]
*Social relations	4.75	4.67	4.89	4.59	4.66
Family	4.76	4.74	4.74	4.43	4.59
Safety	4.39	4.27	4.76	4.53	5.01
Finances	3.80	3.84	3.91	3.90	4.08
Global	4.55	4.38[a]	4.473	4.35	4.51
Women					
Living situation	4.15	4.47	4.50	4.88	4.98
Health	4.90	4.90[b]	4.57[b]	5.06[b]	5.13
Leisure	4.73	4.65	4.42[b]	5.00[b]	5.20[b]
*Social relations	4.83	4.91	4.78	4.85	5.22
Family	4.41	4.74	4.38	4.76	4.97
Safety	4.51	4.74	4.43	4.66	4.89
Finances	4.42	3.97	6.48	4.20	4.54
Global	4.40	4.80[b]	3.76[b]	4.62	4.92

Note: Noncommon subscripts (a vs. b) are significantly different.p˜<˜.05.*Main effect for gender, p˜<˜.05.

In this decade men's ratings of the quality of their health (M = 4.96) were significantly higher than those of women [M = 4.57, F(l, 92) = 3.66, $p < .05$] (see Figure 1). Scheffe's test was used to assess all the simple effects in this study. This test protects against type I error and is considered to be very conservative.

A similar pattern was revealed for the variable of satisfaction with leisure time. Men aged 36 to 45 (M = 4.96) were significantly more satisfied with their leisure time than were women (M = 4.42) of the same age [F(l, 87) = 6.21, $p < .01$]. This effect, however, reversed as age increased. Women aged 46 to 55 (M = 5.09) and 56 to 65 (M = 5.20) reported greater satisfaction with their leisure time than did

men (respectively, M = 4.55, F(l, 89) = 7.92, $p < .01$; M = 4.59, F(l, 89) = 6.06, $p < .05$], (see Figure 1).

Finally, significant differences between men and women aged 26 to 35 and 36 to 45 were revealed in the breakdown of the interaction on general life satisfaction. Women aged 26 to 35 (M = 4.80) had significantly higher general life satisfaction ratings than did the men [M = 4.38, F(l, 98) = 4.92, $p < .05$]. Men aged 36 to 45, however, expressed significantly higher general life satisfaction (M = 4.47) than did the women (M = 3.76) (F(l, 89) = 5.31, $p < .05$] (see Figure 1).

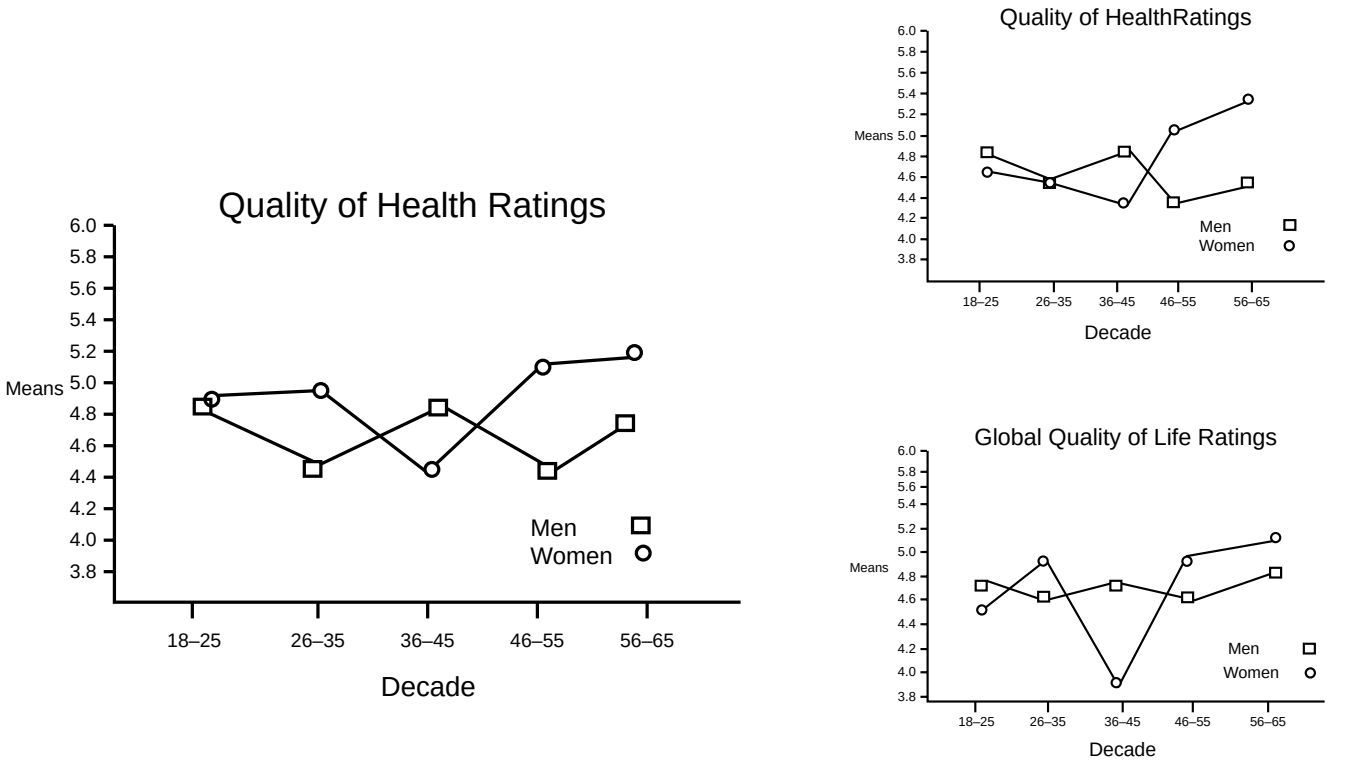

Figure 1. Health, leisure, and global life satisfaction ratings as a function of gender and decade.

In that the combined dependent variables failed to produce a gender effect in the multivariate analysis, very few if any gender effects were expected in the univariate analyses. There was, however, one significant main effect for gender on the variable of social relations, F(l, 4) = 5.02, $p < .05$. Collapsing across decades it was found that women (M = 4.91) were significantly more satisfied with their social relations than were men (M = 4.7 1).

Objective Quality of Life Indicators

A separate 5 x 2 (decade x gender) multivariate analysis of variance was performed on the objective quality of life variables. The dependent variables were objective indicators of eight specific life domains. The combined dependent variables were significantly affected by decade [Wilk's criterion = .70, F(4, 402) = 4.03, $p < .001$], and gender [Wilk's criterion = .95, F(l, 402) = 2.22, $p < .05$], but not by their interaction, [Wilk's critenon = .91, F(4, 402) = 1.05, $p > .05$]. To further understand these results, univariate ANOVAs were completed on each of the dependent variables.

Main effects for decade were found on the variables of frequency of family contact [F(4, 411) = 17.82, $p < .001$], frequency of social relations [F(4, 411) = 11.06, $p < .00$ 1], frequency of leisure activities [F(4, 411) = 11.00, $p < .001$), the number of times assaulted during the past year [F(4, 411) = 3.99, $p < .01$], and psychiatric hospitalizations during the past year [F(4, 411) = 5.59, $p < .001$], all of which decreased with advancing decades (see Table 3).

Table 3 The Mean Objective Quality of Life Scores According to Decade and Gender

	Age (Years)				
	15-25	26-35	36-45	46-55	56-65
Men					
**Family Contact	3.28	3.22	2.86	2.24	2.09
**Social relations	3.40	3.18	2.93	2.58	2.60
**Leisure Activities	0.55	0.45	0.45	0.33	0.36
Currently Employed	0.31	0.23	0.15	0.14	0.19
*Monthly Spending	78.20	69.51	96.89	58.59	58.81
**Assault/past year	0.27	0.19	0.20	0.0	0.04
Robbed/past year	.38	0.21	0.19	0.25	0.31
**Psychiatric Hospital/ past year	0.56	0.47	0.39	0.24	00.35
Jail/past year	0.11	0.13	0.09	0.12	0.08
Women					
**Family Contact	3.22	3.37	2.94	2.40	2.31
**Social relations	3.32	3.36	3.15	2.95	2.91
**Leisure Activities	0.51	0.48	0.44	0.42	0.39
Currently Employed	0.30	0.23	0.22	0.23	0.02
*Monthly Spending	57.48	71.27	46.19	54.87	49.91
**Assault/past year	0.35	0.23	0.19	0.18	0.08
Robbed/past year	0.22	0.23	0.42	0.22	0.17
**Psychiatric Hospital/ past year	0.61	0.58	0.42	0.28	0.32
Jail/past year	0.12	0.08	0.03	0.00	0.00

Note: *Main effect for gender, all ps ˜< ˜.05.

**Main effect for decade, all ps < .05

Comparisons of the means of individual dependent variables demonstrated that individuals aged 18 to 25 (M = 3.25), 26 to 35 (M = 3.27), and 36 to 45 (M = 2.90), had a significantly greater amount of contact with their families than did individuals between the ages of 46 and 55 (M = 2.33), and 56 to 65 (M = 2.21). Furthermore, persons aged 18 to 25 (M = 3.36), and 26 to 35 (M = 3.27) spent more time socializing than did individuals aged 46 to 55 (M = 2.77) and 56 to 65 (M = 2.76). Subjects aged 18 to 25 (31%) were assaulted significantly more often than were subjects aged 56 to 65 (4%). Finally, a significantly greater percentage of individuals aged 18 to 25 (59%) had been admitted to a psychiatric hospital during the past year than those in the age groups 46 to 55 (26%) and 56 to 65 (33%) (all *p*s < .05).

Main effects for gender were found on the dependent measures of frequency of social relations [F(4, 411) = 7.46, $p < .01$] and the amount of personal spending money [F(4, 411) 3.99, $p < .01$] (see Table 2). Although women (M 3.14) had a significantly greater amount of social contact than did men (M = 2.94), men had more money to spend on themselves each month (M = $71.40) than did women (M = $55.74).

DISCUSSION

To our knowledge this constitutes the first exploration of how the quality of life experiences of persons wit h chronic mental illnesses vary at different stages of the adult life cycle. While our sample was one of convenience drawn from previous quality of life studies, the subjects are nonetheless sufficiently representative of the chronically mentally ill living in a variety of supervised settings to warrant some initial inferences about how quality of life may vary with gender and decade of life. Given the current emphasis afforded quality of life as a key service outcome for the chronically mentally ill, a better understanding of this concept in the context of gender and stage of adult life is needed. In this brief discussion we will highlight the major findings.

First, objective quality of life indicators were significantly influenced by the separate effects of gender and life decade, and not by their interaction. The general trend was for objective quality of life functioning, specifically the amount of family contact, and social and leisure time activities, to decrease with age for both men and women. Compared to men, however, women engaged in more social relations across the life cycle, but men had more financial resources than did women. These patterns resemble those found in the general population (Deiner, 1984). It should be noted here that "objective" indicators of quality of life can be open to interpretation. For example, decreases in social activities do not necessarily connote a worse life. Such indicators must be considered within a broader assessment of quality of life, including life satisfaction.

Despite these strong independent influences of gender and age decade on objective quality of life indicators, life satisfaction, in general, did not appear to vary independently across age decade or gender. Instead, the variation in life satisfaction depended on both the gender of the individual and the person's age decade; in other words on the interaction of gender and age.

What was intriguing, however, was the consistency in the pattern of means reflecting the significant interactions between decade and gender on the variables of health, leisure, and general life satisfaction. The pattern of means for all three variables demonstrated that while men seemed most satisfied with their health, leisure time, and life in general during midlife, women were the least satisfied at this stage in life. As age increased, however, women's satisfaction with health, leisure time, and overall life consistently increased while men's decreased or remained the same. These data suggest a psychological midlife transition or "midlife crisis" that differs in its nature for chronically mentally in men and women. This time period also demarcates the contrast between the turbulent lives of the chronically mentally ill during young adulthood (Pepper, 1985) and the apparent improvements seen among the chronically mentally ill later in life (McGlashan, 1988). We speculate that differences in adjustment to gender role expectations, in particular, work achievement and parenting, account for these different patterns of life satisfaction in chronically mentally ill men and women. Moreover, given the significant difference in life satisfaction between men and women during midlife and even later age decades, further research determining whether the dimensionality of life satisfaction differs substantially between genders should be pursued. Should the quality of life of chronically mentally ill men and women be characterized by using different dimensions of life satisfaction?

Given the nature of our sample and the preliminary state of quality of life assessment for the chronically mentally ill, we hesitate about overinterpretation

of these results. At the very least, however, this study demonstrates the potential importance of considering age and gender when assessing the impact of services on the quality of life of the persons with chronic mental illness.

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The Quality of Life of Chronic Patients in a State Hospital and in Community Residences

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Amidst the controversy about the effects of deinstitutionalization, the well-being of the chronic mentally ill in different treatment settings remains unclear. This study examined objective and subjective quality-of-life experiences of four groups of chronic patients categorized according to whether they were inpatients of a state hospital or residents of a supervised community residence and whether their current length of stay had been less than or greater than six months. Regardless of length of stay, the community residents perceived their living conditions more favorably, had more financial resources, and were less likely to have been assaulted in the past year than the inpatients. The study illuminates the problematic living conditions

of state hospitals and the benefits of appropriately designed community-based residences for the chronic mentally ill.

Since deinstitutionalization began more than two decades ago, the inpatient census of public mental hospitals has been reduced by more than 70 percent (1). Despite this dramatic reduction in the numbers of mental patients living in hospitals, deinstitutionalization has more recently come under heavy criticism for perpetuating, and at times exacerbating, some of the deficiencies in patient care that it was intended to correct (2).

Concerns have focused on patients' quality of life outside the hospital, including their living situations (3), how they spend their time (4), the degree to which they are isolated from their communities (5), their financial deprivation (6), and their safety (7). Although the news media frequently report specific instances in which mental patients encounter particularly adverse conditions, either in the hospital or in the community, systematic data are needed to more fully understand the factors that affect the quality of life of mental patients. Such information may help us to appraise different treatment settings and may guide us in the revision of treatment approaches and policies.

Issues related to quality of life have received more attention recently in the mental health research literature (8–11). The National Institute of Mental Health's community support program identified quality of life as the critical outcome variable for evaluating community support services for the chronic mentally ill (12). Methodologic studies have substantiated the importance of including objective measures of life conditions and life satisfaction in evaluations of quality of life (13).

In three separate surveys of life satisfaction among discharged

chronic mental patients, between 42 and 56 percent of the patients expressed positive life satisfaction (3,10,14), whereas between 82 and 91 percent of the general population expressed satisfaction with their lives (15,16). The sources of greatest dissatisfaction for the discharged patients appeared to be poverty, unemployment, lack of community services, poor health, and problems with personal safety (9,10,17,18). Two additional studies have suggested that patients' life satisfaction can be improved through innovative community programs (8,19).

Despite these beginnings in our understanding of issues related to quality of life, the well-being of chronic mental patients in different treatment settings remains poorly understood. This study extends previous work (10,18,20) by examining the quality of life experienced by four cohorts of chronically mentally disabled persons, grouped according to their current treatment setting (hospital or community residence) and their current length of stay in the setting (less than or greater than six months). We compared the four groups on two sets of quality-of-life variables: objective life conditions and life satisfaction.

Because the patients were not randomly assigned to either the hospital or the community residence, our findings are exploratory and are not intended to test the hypothesis that patients are better off in one setting or another. However, this study may stimulate more systematic evaluations of the quality of chronic mental patients' lives and draw more balanced attention to the ongoing problems faced by patients in the hospital as well as by those in the community.

Methods

Sample selection. Patients were eligible for the study if they were between the ages of 18 and 65, suffered from a chronic mental disability of at least two years' duration, and had been or were currently inpatients at the local state psychiatric center. All participants provided written informed consent and were paid $10.

The hospitalized subjects were selected at random from among all current inpatients at the psychiatric center, a 950-bed inpatient facility serving a metropolitan area and the surrounding rural communities. Twenty percent of the patients from each hospital ward were chosen to participate by a systematic random sampling technique, and those who declined to participate were replaced by alternates, also selected randomly. Of the initially selected sample, 65 percent consented. A total of 99 inpatients completed the study.

Compared with the inpatients who participated in the study, inpatients who refused were more likely to be schizophrenic men who had been hospitalized for a very long period. Although systematic data were not collected on their mental status, it was our impression that as a group they were more regressed and paranoid than the patients who completed the study.

The community residence patients were similarly chosen at random from the ten supervised community residence programs in the area, including two large proprietary homes for adults with more thin 200 beds per home, six group homes with up to 25 beds per home, and two supervised apartment programs. These community residence programs were privately operated and licensed by the state. All of the participating patients interviewed had a history of hospitalization at the psychiatric center. Ninety-two of the initially selected sample, or 77 percent, agreed to participate. Those who refused did not differ from participants with respect to age, sex, diagnosis, or current length of residence. It was our impression that they also did not differ with respect to current mental status.

Data collection. All subjects completed two structured interviews-the Quality of Life

Interview, which focused on the quality of their lives currently, and the Schedule of Affective Disorders and Schizophrenia-Change Version (SADS-C), a mental status examination. The SADS-C includes the Global Assessment Scale.

The Quality of Life Interview is a one-hour structured interview conducted by trained research assistants in which patients are asked about the quality of their lives in eight areas: living situation, family, social relations, leisure activities, work, finances, personal safety and legal problems, and health (10). For each area, patients were asked to provide objective information, for example, to approximate the frequency of social contacts, and to rate their level of satisfaction on a scale of 1, terrible, to 7, delighted. General life satisfaction was also assessed.

Internal consistency and test-retest reliabilities of the scales for objective life conditions and life satisfaction ranged from .5 to .9. The theoretical basis of this approach to the assessment of quality of life and specifics about the Quality of Life interview are provided elsewhere (8,10,13,15,16, 21).

The SADS-C (22) was completed in a second interview by a psychiatrist (AFL or FH) who was blind to the patients' responses on the Quality of Life Interview. The SADS-C assessed patients' psychiatric symptomatology during the past week and provided a means to control for the effects of mental status on perceptions of quality of life (23).

Interestingly the long-stay inpatients perceived their living conditions more positively than did the more recently admitted inpatients

Finally, the patients' medical records were reviewed for psychiatric and medical diagnoses, current medications, current length of stay, and history of hospitalizations.

Data analysis. Four subgroups of patients were studied: 26 community residence patients whose length of stay was less than six months, 66 community residence patients whose length of stay was greater than six months, 47 inpatients whose length of stay was less than six months, and 52 inpatients whose length of stay was greater than six months. We employed multivariate analysis of variance and covariance using setting (inpatient versus community residence) and length of stay (less than or equal to six months versus greater than six months) as main effects.

Because patients were not randomly assigned to the subgroups and because demographic and clinical variables may affect indicators of quality of life (21,23), we first analyzed differences in the four groups' demographic and clinical characteristics using a multivariate analysis of variance. Next we assessed differences in the four groups on objective indicators of quality of life using a multivariate analysis of covariance in which objective measures of quality of life were the dependent variables. The covariates were demographic and clinical characteristics that showed significant between-group variation based on the preceding analysis of variance.

Finally, we evaluated differences in life satisfaction among the four groups using another multivariate analysis of covariance in which life satisfaction measures were the dependent variables. The covariates were demographic, clinical, and objective quality-of-life variables that showed significant between-group variation based on the two preceding analyses. For all of the analyses, between-group differences were examined only when a significant overall main effect was found for setting or length of stay.

In a second series of analyses we conducted a stepwise discriminant function analysis on the four patient groups using the three sets of predictor variables-demographic and clinical characteristics, objective life conditions, and life satisfaction-to determine the set of variables that was most effective in differentiating the four patient groups.

Results

Demographic and clinical characteristics. Table 1 summarizes the demographic and clinical characteristics of the four patient groups. Overall main effects were present for both treatment setting ($F=4.3$, $df=23,150$, $p<.0001$) and length of stay ($F=2.4$, $df=23,150$, $P=.001$), but there was no interaction between setting and length of stay ($F=0.8$, $df=23,150$, $p>0.7$). Compared to community residence patients, hospitalized patients were more likely to be black; to be diagnosed as schizophrenic; to be more dysfunctional, based on the Global Assessment Scale; and to display more overtly disordered thinking based on the SADS-C.

Patients who had been in the current setting for less than six months, regardless of which setting it was, were more likely to suffer from affective disorders and less likely to be mentally retarded than patients whose current stay had been longer. Patients who had been recently admitted to community residences were better educated than the other patients. The four groups did not differ in terms of gender, marital status, or current

Table 1 Relationship of setting and length of stay to clinical and demographic characteristics for patients at a state mental hospital and in community residences

Characteristic	Community residents			State hospital patients			Main effects[1]		Between group differences[2]
	Group 1 ≤ 6 mos. (n=26)	Group 2 > 6 mos. (n=66)	Total (n=92)	Group 3 ≤ 6 mos. (n=47)	Group 4 > 6 mos. (n=52)	Total (n=92)	Setting	Length of stay	
Percent female	45.8	59.3	55.4	39.5	56.0	48.4	ns	ns	–
Mean age	35.0	45.8	42.7	37.5	39.7	38.7	ns	.004	2>1,3,4
Mean years education	13.2	10.2	11.0	11.2	10.8	11.0	ns	.002	1>2,3,4
Percent Caucasian	100	84.7	89.2	72.1	84.0	78.5	.015	ns	1>3
Percent married	0	10.2	7.2	9.3	14.0	11.8	ns	ns	–
Percent with affective disorder	25.0	6.8	12.0	20.9	6.0	12.9	ns	.002	1,3>2,4
Percent with schizophrenia	54.2	61.0	59.0	67.4	86.0	77.4	.009	ns	4>1,2
Percent mentally retarded	0	18.6	13.3	2.3	14.0	8.6	ns	.002	2,4>1,3
Mean scores on Global Assessment Scale[3]	61.1	61.0	61.0	46.3	41.1	43.5	<.001	ns	1,2>3>4
Mean scores on SADS-C symptom scales[4]									
Depression	1.58	1.43	1.48	1.69	1.56	1.62	ns	ns	–
Anxiety	2.01	1.78	1.85	1.99	1.87	1.92	ns	ns	–
Mania	1.30	1.21	1.24	1.30	1.30	1.30	ns	ns	–
Thought disorder	1.51	1.55	1.54	2.12	2.52	2.34	<.001	ns	3,4>1,2
Overall	2.03	1.90	1.94	2.23	2.17	2.20	.018	ns	3,4>2

[1]Main effects were determined by a multivariate analysis of variance.

[2]Between-group differences were determined by a least square means t test after a main effect had been found. Differences are significant at the $p<.05$ level.

[3]Global Assessment Scale scores ranged from 0, poorest, to 100, best.

[4]SADS-C scale scores ranged from 1, no symptoms, to 6, maximum symptoms.

symptoms of depression, anxiety, or mania. In subsequent analyses of objective life conditions and life satisfaction, we adjusted for the demographic and clinical differences of the four groups by using age, education, race, psychiatric diagnosis, Global Assessment Scale scores, and SADS-C ratings for thought disorder as covariates.

Objective life conditions. Overall main effects were found for both setting ($F=3.4$, $df=14,132$, $p<.0001$) and length of stay ($F=1.9$, $df=14,132$, $p=.04$) on objective life conditions, based on a multivariate analysis of covariance adjusted for group differences in demographic and clinical characteristics. There was no significant interaction between setting and length of stay ($F=1.2$, $df=14,132$, $p=0.3$). Community residence patients described their living situations as more comfortable and cohesive than did inpatients. Of the four patient groups, those who were recently admitted to the hospital had the most negative perceptions of their treatment setting. Interestingly the long-stay inpatients perceived their living conditions more positively than did the more recently admired inpatients.

In general their objective life conditions appeared to fall between those of community residence patients and short-stay inpatients. Table 2 presents the objective indicators of living situation for the four groups.

The patients who had been hospitalized for less than six months were by far the most likely to have been arrested during the past year. The community residence patients had more money to spend per month than did the inpatients, due both to their Supplemental Security Income benefits and to the income they earned through part-time work. The patient groups did not differ on frequency of contacts with their family or social acquaintances, or on the extent of their involvement in leisure activities. They also did not differ in the proportion who were currently employed in sheltered or part-time work.

Table 2 Relationship of setting and length of stay to mean scores on living situation scales for patients at a state hospital and in community residences

Characteristic	Community residents			State hospital patients			Main effects[1]		Between group differences[2]
	Group 1 ≤ 6 mos. (n=26)	Group 2 > 6 mos. (n=66)	Total (n=92)	Group 3 ≤ 6 mos. (n=47)	Group 4 > 6 mos. (n=52)	Total (n=92)	Setting	Length of stay	
Comfort	.74	.66	.70	.40	.44	.42	<.0001	ns	1,2>3,4
Independence	.69	.67	.68	.42	.55	.48	.0003	ns	1,2,4>3
Cohesion	.69	.69	.69	.46	.55	.50	.0002	ns	1,2>3
Influence	.52	.52	.52	.34	.38	.36	<.0001	ns	1,2>3,4

[1] Main effects were determined by a multivariate analysis of variance.

[2] Each living situation scale score represents the mean of nine dichotomous items that were rated either 0, indicating a positive response, or 1, indicating a negative response. The lower the group's mean living situation scale score, the more negative the group's perceptions. The mean values are adjusted for demographic and clinical covariates, including race, age, education, diagnosis, Global Assessment Scale score, and SADS-C thought disorder score using an analysis of covariance.

[3] Between-group differences were determined by a least square means t test after a main effect had been found. Differences are significant at the $p<.05$ level.

However, on the average the community resident s who were employed worked significantly more hours per week than did the employed inpatients (21 hours and 8 hours, respectively; t=3.2, df=48, $p<.01$).

Compared to community residence patients, a higher number of inpatients, particularly those admitted during the preceding six months, had been victims of assaults during the past year. Only five community residence patients (5.4 percent) reported assaults during the previous 12 months, compared with 27 of the current inpatients (27.3 percent). Of the assaulted community residents, one patient had been raped, one had been mugged on the street by unknown assailants, two had been involved in minor fights with other patients at the residence, and one had been assaulted by another patient during a previous hospitalization.

Of the 27 assaults against inpatients, 20 (74 percent) occurred in the hospital. Fourteen of the 20 (52 percent) involved relatively minor altercations with other inpatients, and four (15 percent) involved alleged assaults by hospital staff. Two patients (7 percent) stated that they had been raped by another patient while in the hospital. The remaining seven assaults against inpatients (26 percent) occurred outside the hospital, although not necessarily prior to the current hospitalization, and included one rape, five muggings, and one alleged beating by police.

Life satisfaction. Initial comparisons of ratings of life satisfaction of the four patient groups, ignoring group differences on demographic and clinical characteristics and objective quality-of-life conditions, revealed marked between-group variations. Inpatients expressed significantly less satisfaction in all life areas compared with community residence patients (F=7.3. df=8,165, p<.0001); see Table 3. Patients who had lived for a minimum of six months in their current treatment setting were generally more satisfied with their finances and leisure time than were patients who had been in the current setting for less than six months (F=2.7, df=8,165, P<.01), but otherwise length of stay was not related to life satisfaction.

Finances were the most consistent source of dissatisfaction for all patient groups. Inpatients and community residents differed most in their level of satisfaction with their living situation. Only 32 percent of the inpatients were satisfied with their living situation compared with 77 percent of the community residents.

However, the differences between the four groups in life satisfaction could be explained on the basis of differences in patient characteristics and objective life conditions. After adjusting for group differences on demographic and clinical characteristics and

Table 3 Mean life satisfaction ratings[1] of patients at a state hospital and in community residences

Life Area[2]	Community residents		State hospital patients	
	≤ 6 mos.	> 6 mos.	≤ 6 mos.	> 6 mos.
Finances[3,4]	3.8	4.5	3.3	4.3
Family relations[3]	4.8	4.9	4.4	4.5
Health[3]	5.2	5.3	4.5	4.6
Living situation[3]	5.0	5.1	3.8	3.9
Leisure activities[3,4]	4.6	5.2	4.3	4.6
Safety[3]	5.1	5.1	4.1	4.5
Social relations[3]	4.8	5.2	4.6	4.7
Life in general[3]	4.7	5.2	4.1	4.2

[1]Life satisfaction ratings ranged from 1, terrible, to 7, delighted.

[2]The life area of work was not included in the analysis because of the small number of patients who worked.

[3] A significant main effect ($p<.05$) was found for treatment setting.

[4] A significant main effect ($p<.05$) was found for length of stay

objective life conditions, we found no significant main effects on life satisfaction by treatment setting ($F=0.3$, $df=8,128$, $P>.95$) or by length of stay ($F=1.6$, $df=8,128$, $p=.13$) and no significant interaction between treatment setting and length of stay ($F=1.0$, $df=8,128$, $P=.5$). The covariate most responsible for this phenomenon was the physical comfort of patients' current living situation, which correlated with general life satisfaction ($F=0.33$, $df=8,128$, $p<.0001$).

Discriminant analysis of patient subgroups. In a final analysis we examined the ability of demographic and clinical characteristics, objective life conditions, and life satisfaction to discriminate among the four patient groups using a hierarchical discriminant function analysis. This analysis confirmed that the major discriminating variables among the four groups were demographic and clinical characteristics and certain objective conditions. Four variables-age, Global Assessment Scale score, arrest rates during the past year, and physical comfort of the living situation-accurately classified 58 percent of the patients. The group that was misclassified the most were patients who were recently admitted to the hospital; 45 percent were misclassified as long-stay inpatients.

Discussion

Our findings offer a preliminary but broad perspective on the quality of life of chronic mentally ill patients in a state hospital and in alternative community residences. However, because patients' current living situations were dependent on their clinical condition and not on random assignment, the results must be interpreted cautiously. The comparisons among the four patient groups offer some insights into how patients were distributed across the treatment settings studied and the types of problems faced by the different subgroups. Taken in this framework, the results may suggest specific changes that could improve patients' quality of life in the different treatment settings. With this perspective, we will discuss each of the patient subgroups separately.

Short-stay community residents. Of the four groups studied, patients who had been living in a community residence for six months or less were the youngest and best educated. All of the short-stay community residents were Caucasian, and 54 percent were men. They included a relatively high percentage of patients with an affective disorder (25 percent), and a low percentage of patients with schizophrenia (54 percent). None were mentally retarded. They differed as much on these variables from the long-stay community residents as they did from the hospital inpatients. Their objective quality-of-life conditions and life satisfaction ratings were generally comparable to those of the long-stay community residents except that they tended to have higher rates of employment than the long-stay community residents (29 percent versus 18 percent), higher arrest rates (10 percent versus 2 percent), and greater dissatisfaction with their financial situation.

These data create a picture of a group of patients with relatively good premorbid functioning who used the community residence as a true halfway house toward more independent living. Improvements in their economic status appear to be most on their minds and could conceivably be enhanced through vocational training and work opportunities.

Long-stay community residents. The majority of these patients were middle-aged women whose current length of stay in the community residence averaged more than three years (38 months). They were comparable to the short-stay community residents in terms of psychiatric symptoms, but 19 percent had a secondary diagnosis of mental retardation, compared with none

of the short-stay community residents. Their objective life conditions did not differ noticeably from the short-stay patients, despite the fact that as a group they had the highest level of life satisfaction. These patients gave the impression of being a rather settled group who seemed reasonably content with their current life situation. Their quality-of-life profile reveals that they felt no particular impetus to change.

Short-stay inpatients. This group included the highest percentage of minority patients (28 percent). Compared with the long-stay inpatients, they were more likely to carry a diagnosis of affective disorder and were less likely to have mental retardation as a secondary diagnosis. They were diagnostically similar to the short-stay community residence patients but were clearly more acutely impaired. They regarded their current living conditions in the hospital very negatively and had less spending money than any other group. They were particularly distinguished from the other patient groups by having the highest arrest rate during the past year, which usually led to the current hospitalization; the highest rate of assault against themselves; and the lowest level of life satisfaction. They also had the highest number of prior hospitalizations. They fit the profile of young adult chronic patients caught in cycles of violence, discontent, decompensation, and rehospitalization (24-26).

The complex needs of these patients make it difficult to formulate recommendations for treatment interventions based on our analysis of the quality of their life experiences. We hypothesize that these patients experience a negative feedback cycle in which their psychiatric disabilities produce relatively adverse life conditions, such as lack of a job and money, that distinguish them from their healthy peers and lead them to view their lives negatively. Their dissatisfaction and discouragement may contribute to their poor motivation and compliance with treatment, which result in further psychiatric morbidity and dysfunction. Longitudinal studies of negative feedback cycles involving quality of life and psychiatric morbidity, as well as interventions to halt them, are needed.

Long-stay inpatients. The most distinguishing characteristics of this group are the predominance of patients with the diagnosis of schizophrenia (86 percent) and the patients' high level of impairment, which exceeded levels of impairment of other patient groups, as indicated by the Global Assessment Scale. The current hospital stay of these patients averaged eight years. Compared with the short-stay inpatients, long-stay inpatients were more likely to have a secondary diagnosis of mental retardation and tended to perceive their living situation more positively. They were more likely than short-stay inpatients to have been engaged in some paid work (32 percent and 19 percent, respectively) and to have more monthly spending money ($54 and $42, respectively) but much less likely to have been arrested during the past year (0 percent and 31 percent, respectively).

Like the short-stay inpatients, long-stay inpatients were much less satisfied with most areas of their lives, especially their living situation, than were patients in community residences. However, they were precluded from transfering into existing community residence programs by their level of symptoms and dysfunction. Therefore, to improve these patients' quality of life, it would be useful to upgrade the state hospital environment by augmenting their physical comfort, increasing their influence on rules and restrictions, and providing them greater protection from assaultive patients.

Conclusions

The most salient findings of this study are the different experiences in living situation of inpatients and community residence patients and the degree to which the adequacy of patients' living situation explained most of the differences in their sense of well-being. In particular, these differences ought to concern us in regard to long-stay inpatients, who may lack the capacity to live outside a highly structured institution. The hospital's deficiencies in physical comforts as well as the increased risk of assault that occurs in institutional settings whose populations include large numbers of confined, psychotic, and behaviorally disturbed persons detracted seriously from the inpatients' quality of life. If we must maintain such institutions, then we ought to maintain them well.

In contrast, the community residences provided more favorable environments for their patients. However, it is essential to recognize that the community residences studied served a less impaired population than did the state hospital, and the level of impairment of patients undoubtedly affected the quality of the living environments. Furthermore, community residential programs elsewhere are known to have environmental problems similar to those found at the state hospital in this study (3,4,10).

As we adjust our national policies for the treatment of the chronic mentally ill, seeking to correct the deficiencies in community-based care under deinstitutionalization, we must keep in mind the fundamental and ongoing problems of large public mental hospitals, problems that contributed to deinstitutionalization in the first place.

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A QUALITY OF LIFE INTERVIEW FOR THE CHRONICALLY MENTALLY ILL.

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ABSTRACT

During the past few years there has been increased interest in assessing the quality of life of the chronically mentally ill to assist in planning and evaluating programs for these patients. New initiatives to integrate and expand psychiatric, medical, and social services for the chronically mentally ill make such broad-based service evaluations all the more relevant. This paper describes the development and psychometric evaluation of a structured, 45-minute Quality of Life Interview for the chronically mentally ill. Based upon studies with nearly 500 chronically mentally ill patients, the interview has satisfactory reliability and validity. After a description of the interview, the author discusses several issues regarding the status of QOL assessments in this population, the potential relevance of such assessments to program development and evaluation, their potential applications in clinical practice, and persistent problems in interpreting and applying the results of QOL evaluations.

INTRODUCTION

Evaluating the well-being of the chronically mentally ill has become crucial to revising our national plans for serving them in the wake of three decades of deinstitutionalization. These persons typically require assistance in several life areas, including housing, finances, family support, opportunities for social interaction and personal development, legal and safety problems, medical care and mental health services. Major new initiatives are underway at federal, state, and local levels to more effectively integrate the many services needed by these patients. For example, the Robert Wood Johnson Foundation and the U.S. Department of Housing and Urban Development have just launched a grant program to stimulate large cities to consolidate and expand services for the chronically mentally ill (Robert Wood Johnson Foundation, 1986). It has been advised that such innovations be evaluated from the standpoint of their impact on patients' quality of life, as well as their effects on patients' mental and general health status, families, communities, and service costs (Schulberg & Bromet, 1981). This has stimulated mental health program administrators and evaluation researchers to pay more attention to the assessment of quality of life (Bigelow, Brodsky, Steward, & Olson, 1982; Baker & Intagliata, 1982; Lehman et al., 1982; Schulberg & Bromet, 1981; Tessler & Goldman, 1982; Diamond, 1985; Heinrichs, Hanlon, & Carpenter, 1984).

Interest in assessing the quality of life of chronic mental patients was brought forward most strongly in the mid-1970s by the Community Support Program (CSP), an initiative by the National Institute of Mental Health to stimulate states and localities to develop more comprehensive community-based services for the chronically mentally ill. The stated goal of CSP was to improve patients' quality of life (Schulberg & Bromet, 1981; Tessler & Goldman, 1982), which was broadly defined as the extent to which "improvements in system performance actually tr anslate into humane, dignified, and satisfying conditions of community living for chronically disabled clients" (Tessler & Goldman, 1982, p. 186). Research teams in two participating states, Oregon (Bigelow et al., 1982) and New York (Baker & Intagliata, 1982),

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worked extensively to operationalize the notion of quality of life within the context of CSP.

The Oregon Quality of Life Questionnaire (OQLQ) (Bigelow et al., 1982) focused on role functions and included items on satisfaction and actual performance in four areas: personal adjustment, interpersonal adjustment, adjustment to productivity, and civic adjustment. In New York, Baker and Intagliata (1982) developed a 15-item Satisfaction with Life Domains Scale (SLDS) to assess CSP clients' life satisfaction with various areas of their lives. In a subsequent paper, Bartlett and Intagliata (1985) reported on a 21-item Life Satisfaction Profile which assesses the value assigned by chronically mentally ill patients to various resources: basic needs, advice, special affiliation, autonomy, personal accomplishment, religion, and general affiliation. Hence, the CSP initiative promoted significant work on assessing the quality of life of chronically mentally ill persons. However, no single QOL measure emerged as definitive and the researchers involved in this work urged more extensive research into the development of adequate and relevant measures of QOL.

In summary, the assessment of QOL among the chronically mentally ill has progressed in recent years but much remains to be done. The Quality of Life Interview described herein has been under development during the past seven years and has now been used with nearly 500 chronically mentally ill patients in various settings. The purpose here is to describe the development of this interview and report on its psychometric properties.

INTERVIEW DEVELOPMENT AND ADMINISTRATION

The Quality of Life Interview reflects the conceptual model depicted in Figure 1 based upon the seminal studies of the quality of American life by Campbell et al. (Campbell, Converse, & Rodgers, 1976) and Andrews and Withey (Andrews & Withey, 1976). The model views the experience of general well-being as a product of personal characteristics, objective life conditions in various life domains, and satisfaction with life conditions in these various domains. The formulation allows for comparisons across populations on any given component of the model, such as comparisons of general well-being or functioning within a particular life domain, as well as assessments of the salience of various life domains to general well-being within a population by means of regression models. For purposes of evaluating the quality of life experienced by the chronically mentally ill, this model has the attraction of evaluating a broad variety of current life experiences that can affect the patient's sense of well-being, thus integrating areas that may relate to the need for and be affected by the delivery of psychiatric, general medical and social services. Such an integrated model acknowledges current emphasis on comprehensive service plans for these patients (Schulberg & Bromet, 1981; Talbott, 1984).

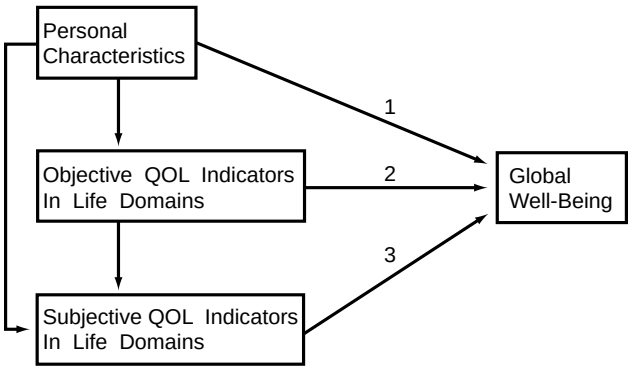

Figure 1. Quality of life model.

In developing an instrument to assess the quality of life of these impaired persons, several criteria were emphasized. An interview format was selected over a written questionnaire because many of these persons may have problems understanding written

questionnaires and may have difficulty sustaining interest in completing such questionnaires. Furthermore, many of these patients enjoy the one-to-one contact with an interviewer, which aids in patient cooperation and motivation to complete the interview.

This obviously increases the expense of such assessments compared to pencil and paper self-reports, but seems necessary for many patients. Some chronically mentally ill persons can certainly complete extensive written questionnaires, but many others either cannot or will not. Much briefer self ratings of QOL, such as global life satisfaction, would increase the feasibility of less costly, self-administered ratings, but would also be less rich in specific information about life domains and therefore less useful for program development.

The interview is highly structured to ensure consistency, to minimize interviewer effects and to permit its use by non-clinical interviewers. Because these patients may have difficulty recalling how they were doing or feeling in the past, the interview is oriented mainly to current feelings of satisfaction and current or recent functional status and access to resources. Every effort has been made to keep questions brief and concrete. Pilot trials of question formats that relied on conditional thinking confirmed the validity of this approach. For example, such questions as, "If you wanted to go downtown, would you be able to get there?", proved too difficult for some patients and were rendered non-usable by others due to such responses as, "But I don't want to go downtown.", or "I don't like the bus." Pilot question formats were modified until most patients were able to comprehend and respond. Finally the interview needed to be sufficiently long to sample a variety of life domains with adequate reliability, yet short enough to keep interview burden at a tolerable level. As currently organized, the interview requires approximately 45 minutes.

The selection of life domains for inclusion in the interview was based upon national quality of life studies (Andrews & Withey, 1976; Campbell et al., 1976), several available measures of resources and functioning (Gurland, Yorkston, Stone, Frank, & Fleiss, 1972; Hogarty & Katz, 1971; Katz & Lyerly, 1963; Linn, Sculthorpe, Evje, Slater, & Goodman, 1969; Paykel, Weissman, Prusoff, & Tonks, 1971; Serban, 1978; Stein & Test, 1980; Weissman, 1975), conceptual reviews on quality of life (Flanagan, 1978; George, 1979; Zautra & Goodhart, 1979), and key references on the chronically mentally ill (Lamb, 1979; Lamb & Goertzel, 1977; Segal & Aviram, 1978; Talbott, 1979). Initially eight life domains were selected: living situation, family relations, social relations, leisure, work, finances, safety, and health. Subsequently, a ninth domain, religion, was added on the basis of open-ended responses from patients. For each life domain, pools of items were culled from existing instruments or created anew. Often the wording of the items and their response formats were modified to increase their comprehensibility and to increase the response variance among this generally seriously impaired population. The interview begins with questions about demographic characteristics and general life satisfaction; proceeds through each of the nine life domains, asking first about objective life conditions or level of functioning and then about satisfaction in each domain; and concludes with repeat general life satisfaction questions and some open-ended probes. Copies of the interview are available from the author upon request. Examples of some scales are included in the Appendix.

The interview can be administered by non-clinicians after a relatively brief training period. Training for interviewers begins with study of the instrument to become familiar with its organization according to life domains and objective and subjective QOL measures within each domain, clarification of skip patterns, and the use of the visual rating scales with which respondents rate life satisfaction. The

next step involves viewing either a video tape of the interview or a live interview conducted by an experienced interviewer, followed by discussion of any questions. Most prospective interviewers then have little difficulty conducting an interview themselves observed by a trainer for feedback and become quite comfortable with the flow of the interview after doing several themselves.

Most respondents quickly become comfortable and familiar with the use of the life satisfaction rating scale (1 = terrible through 7 = delighted), presented periodically in the form of a visual analog. In some cases the interviewer may have to reiterate for the respondent the need to use the scaled response options when describing how they feel about various aspects of their lives, a process which is greatly facilitated by the visual scale. The interviewer occasionally must set limits on a particular respondent's tendency to digress into lengthy narrative responses. Most interviewers have little difficulty with this because the interview offers a highly structured format for reference, and respondents usually are able to orient themselves to this. However, some interviewer judgment must at times be exercised to balance the benefits to interviewer-respondent rapport achieved by occasional unstructured conversation with the problems that arise from frequent digressions from the interview format. Interviewers must also judge when a respondent is too disturbed or disoriented to tolerate the interview or provide meaningful responses. Our experience has been that with some practice and occasional advice from an experienced clinician, most interviewers with associate or bachelor level degrees have little trouble making these judgments.

Patient Samples

Three chronically mentally ill patient populations have been surveyed with this instrument: (a) 278 mentally ill residents of 30 large board-and-care homes in Los Angeles; (b) 99 chronically mentally ill inpatients at the Rochester (N.Y.) Psychiatric Center; and (c) 92 chronically mentally ill residents of various supervised community residences in Rochester, N.Y. These three samples will be referred to as Los Angeles board-and-care patients, Rochester inpatients, and Rochester outpatients, respectively. All three samples included only persons between age 18 and 65 and were selected on a systematic random basis in each facility. The results of these surveys have been described in more detail elsewhere (Lehman, 1983a; Lehman, Possidente, & Hawker, 1986; Lehman, Ward & Linn, 1982). Some basic characteristics of these three populations are shown in Table 1.

Table 1 Sample Characteristics

Characteristic	Los Angeles	Rochester Inpatients	Rochester Outpatients
N	278	99	92
% Female	34.5	47.5	57.1
Mean Age (SD)	42.1 (12,50	38.5 (13.4)	43.4 (15.0)
Mean Years of Education (SD)	11.6 (2.9)	11.0 (3.2)	10.8 (3.7)
% Caucasian	74.8	78.8	90.2
Parental Social Class (SD) Duncan Index (1=lowest, 100 = highest)	42.4 (24.9)	42.1 (26.5)	36.0 (22.6)
% Never Marride	55.4	67.7	71.7
% Currently Married	4.3	11.1	6.5
Mean Age (SD) at First Psychiatric Hospitalization	26.4 (11.1)	23.7 (10.6)	27.5 (12.9)
Diagnosis (%)*			
Schzophrenia	63.3	76.8	56.5
Affective Disorder	16.5	13..1	10.9
Alcoholism	10.8	6.1	5.4
Drug Abuse	4.0	1.0	1.1
Organic Brain Syndrome	10.1	4.0	1.1
Mental Retardation	6.8	9.1	14.6
Personality Disorder	9.4	5.4	7.6
Current Length of Stay at Facility (months, SD)	39.9 (41.8)	53.4 (96.1)	28.9 (31.9)

* Patients my have ›1 diagnosis.

Reliability

Internal consistency reliability coefficients (Cronbach's alpha) were computed for interview scales based separately upon the Los Angeles and Rochester (inpatients and outpatients combined) samples. Also, one-week test-retest reliabilities (r) were computed on a subsample of the Rochester population (N = 45). These reliability results are displayed in Table 2. As shown, the levels of internal consistency reliability for most scales were comparable across the Los Angeles and Rochester populations and were adequate for survey purposes and group comparisons. Also, the test-retest reliability correlations revealed significant levels of stability for most interview items and scales.

Two alternative forms of the general life satisfaction scale were administered to each population during the same interview: (a) a two-item, seven-point Delighted-Terrible scale, and (b) seven adjective pairs, each rated on a seven-point scale (Andrews & Withey, 1976). The correlations between these two alternative measures were: Los Angeles, r = 0.68 (p < .0001); Rochester inpatients, r = 0.72 (p < .0001); Rochester outpatients, r = 0.63 (p < .0001). In all subsequent analyses, the former, two-item scale is used as the measure for general life satisfaction because of its relative brevity and recommendations from previous studies of alternative general life satisfaction measures (Andrews & Withey, 1976)

Validity

The validation of any quality of life measure poses major problems because the concept, quality of life, is abstract, and theories about how quality of life ought to behave are limited. However, within these limitations, some assessments of validity are feasible from available data on the Quality of Life Interview. The validity of-this instrument was evaluated in the following ways:

1. Do scale items have face validity and do they adequately assess the intended constructs? (content validity)

Table 2 Qualityof Life Interview Scale Reliabilities

Scale Name	Internal Consistency (Cronbach's alpha)			One-Week Test-Retest Correlation (n=45)
	No Items	Los Angeles	Rochester	
1. Objective QOL Scales				
Living Situation				
1. Security	2	.87	–	–
2. Privacy	3	.44	–	–
3. Autonomy	3	.35	–	–
4. Cohesion	9	–	.64	.29
5. Independence	9	–	.69	.46
6. Influence	8	–	.44	.65
7. Comfort	9	–	.70	.52
8. Current Length of Stay	1	NA	NA	.98
b. Frequency of Family Contacts	2	.78	.82	.89
c. Frequency of Social Contacts	10	.70	.70	.69
d. Number of Leisure Activities	16	.69	.68	.77
e. Work		–		
Current Employment Status	1	NA	NA	.76*
f. Frequency of Religious Activity	2	–	.55	.75
g. Finances				
Total Monthly Support	1	NA	NA	.93
Monthly Spending Money	1	NA	NA	.63
h. Safety				
Assaulted/Past Year	1	NA	NA	.61*
Robbed/Past Year	1	NA	NA	.58*
i. Health				
1. General Perceived Health Status	1	NA	NA	.71
2. Amount of General Medical Care-Past Year	4	.78	.68	.60
3. Amount of Psychiatric Care-Past Year	5	.70	.60	.65
2. Subjective QOL Scales				
a. General Life Satisfaction	2	.74	.79	.71
Satisfaction With:				
b. Living Situation	7	.86	.88	.79
c. Family Relations	5	.85	.87	.85
d. Social Relations	8	.80	.86	.62
e. Leisure	6	.80	.84	.53
f. Work	5	.78	.88	.95
g. Religious Activity	4	–	.79	.57
h. Finances	4	.83	.86	.77
i. Safety	7	.74	.80	.41
j. Health	6	.81	.82	.73

*For these binary variables, the kappa statistic rather than the Pearson correlation coefficient was used to assess test-retest consistency.

2. Are the relationships among the measures in the interview consistent across the three populations studied? (construct validity)
3. Does the instrument produce multivariate prediction models of general life satisfaction (as depicted in Figure 1) in the three mentally ill

populations studied that are comparable to such a multivariate model developed for the general population? (predictive validity)

A. Content Validity. The content of the interview items cannot be fully reported here, but four selected subscales are presented in the Appendix to provide a sense of the scale contents. As previously noted, these items were developed anew or modified from a wide variety of relevant existing measures in the mental health and general quality of life literature (Campbell et al., 1976; Andrews & Withey, 1976; Katz & Lyerly, 1963; Serban, 1978; Linn et al., 1969; Gurland, Yorkston, Stone, Frank, & Fleiss, 1972; Hogarty & Katz, 1971; Weissman, 1975; Paykel et al., 1971; Stein & Test, 1980; George, 1979; Flanagan, 1978; Zautra & Goodhart, 1979; Talbott, 1978; Lamb, 1979; Lamb & Goertzel, 1977; Segal & Aviram, 1978). Factor analyses support a central factor for each scale, although a few scales could be subdivided if so desired. For example, the scale measuring satisfaction with social relations reliably measures a main overall factor (alpha = 0.70) as well as two subfactors, satisfaction with relations within the treatment facility (alpha = 0.67) and satisfaction with relations outside of the facility (alpha = 0.68).

B. Construct Validity. To examine construct consistency across the three study populations, three sets of correlations among various variables were compared. These included: (a) the intercorrelations of objective and subjective QOL measures within each life domain, for example, correlation of frequency of family contacts with satisfaction with family relations; (b) the correlations of demographic variables, domain-specific objective QOL measures and domain-specific subjective QOL measures with general life satisfaction; and (c) correlations of general life satisfaction scores with measures of patient psychopathology. It was hypothesized that the interrelationships among these variables should be reasonably consistent across populations. The results of the first two of these correlational analyses are shown in Tables 3 and 4. Only those interview items and scales used across all three populations are shown. It can be seen that the results are generally quite consistent across populations.

Table 3 Correlations of Objective and Subjective QOL Measures within Life Domains

Domain	Los Angeles	Rochester Inpatient	Rochester Outpatient
Living Situation			
Security	-.04-	X	X
.19**	.19**	X	X
Autonomy	.09	X	X
Comfort	X	.60****	.58****
Cohesion	X	.61****	.55****
Independence	X	.53****	.38****
Influence	X	.48****	.14
Family	.22***	.45****	.28**
Social relations	.27****	.35***	.23*
Leisure	.07	.37***	.06
Work			
Hours/Week	.50***	.27	.28
N	41	26	23
Finances	.12	.18	-.07
Safety			
Assault	-.18**	-.33***	-.06
Rob	-.13	-.36	.02
Frequency of Medicare/Past Year	-.19**	-.08	-.30**

*p < .05, **p < .01, ***p < .001, ****p < .0001.

First, the intra-domain correlations between objective and subjective QOL measures are modest (Table 3), consistent with findings from other QOL studies (Andrews & Withey, 1976; Campbell et al., 1976). Second, domain-specific subjective QOL measures correlate most strongly with general life satisfaction, objective QOL measures correlate less strongly with life satisfaction, and demographic and diagnostic variables correlate least strongly with life satisfaction (Table 4).

Third, of the three dimensions of psychopathology, depression, anxiety, and thought disorder (Brook

Table 4 Correlations of General Life Satisfaction (1=Terrible, 7=Delighted) with Demographic, Diagnostic, Objective QOL and Subjective QOL Domains Measures

	Populations		
Variables	**Los Angeles**	**Rochester Inpatient**	**Rochester Outpatient**
Demographics			
Sex	-.04-	X	X
Age	.19**	X	X
Education	.09	X	X
Parental Social Class	X	.60****	.58****
Race (1 = Caucasian, 0 = Others)	X	.61****	.55****
Never Married	X	.53****	.38****
Married	X	.48****	.14
Diagnoses	.22***	.45****	.28**
Schizophrenia	.27****	.35***	.23*
Affective Disorder	.07	.37***	.06
Organic Brain Disorder			
Alcoholism	.50***	.27	.28
Mental Retardation	41	26	23
Personality Disorder	.12	.18	-.07
Drug Abuse			
Objective OOL Measures	-.18**	-.33***	-.06
Current Length of Stay	-.13	-.36	.02
Frequency of Family Contacts (1 = none, 5 = daily)	-.19**	-.08	-.30**
Frequency of Social Relations (1 = none, 5 = daily)			
Leisure Activities (0 = none. 16 = maximum)			
Currently Employed			
Hours Worked/Week			
Amount of Spending Money/Month			
Assaulted/Past Year			
Robbed/Past Year			
Frequency of Medical Care/Past Year			
Subjective OOL Satisfaction Measures			
Living Situation			
Family			
Social Relations			
Leisure			
Finances			
Safety			
Work			
Health			

*p ≤ .05, **p ≤ .01, ***p ≤ .001, ****p ≤ .0001.

et al. 1979; Endicott & Spitzer, 1978; Krawiecka, Goldberg, Vaughan, 1977), which were assessed concomitantly with general life satisfaction, depression and anxiety consistently showed

significant, negative correlations with general life satisfaction across the various patient populations (for depression, r = -.17 to -.56, $p < .05$ to $< .0001$; for anxiety, $r = -.25$ to $-.33$, $p < .001$ to $< .0001$). Thought disorder did not correlate with life satisfaction ($r = .06$ to $-.14$). Therefore concomitant assessment of a respondent's level of psychiatric symptoms, especially depression and anxiety, seems advisable in this population.

C. Predictive Validity. The final set of validity analyses examined the performance of the multivariate QOL model depicted in the Figure for the three study populations and compared the overall predictive capacity of the model in these populations with the model's performance in the general population. Only those interview variables obtained for all three study populations were used in the analyses. This analysis consists of a four-stage, step-wise multivariate regression of general life satisfaction on four sets of predictor variables: (a) demographics; (b) diagnoses; (c) objective, domain-specific QOL measures; and (d) subjective, domain-specific QOL measures. In each successive stage, significant predictor variables from the preceding stage were forced into the regression analysis first and then additional significant predictors from the next set of variables were allowed to enter.

It can be seen that the pattern of predicted variance across the three chronic patient populations were similar. Furthermore the predictive performance of the model compared favorably with similar analyses from general population studies as shown in Table 5.

Table 5 Stage-Wise Multiple Regression Prediction of General Life Satisfaction for Patient Subgroups and General Populations

	Predicted Variances (R2) for Populations			
	Chronic Patient Groups			
Stage	Los Angeles	Rochester Inpatient	Rochester Outpatient	General Population[a]
Demographics	.03	0	0	.05-11
Stage 1 + Diagnoses	.04	.04	.09	NA
Stage 2 + Objective QOL Indicators	.22	.14	.27	.18
Stage 3 + Subjective QOL Indicators	.57	.40	.49	.42-.61

[a]Data from Andrews Withey (1976, p. 141) and Campbell et al.(1976, pp. 368, 374).

DISCUSSION

The Quality of Life Interview described here is one of but a few instruments with known psychometric properties for assessing the quality of life of persons suffering from chronic mental disorders. The other two comparably developed instruments are the Oregon Quality of Life Questionnaire (Bigelow et al., 1982), and the Satisfaction with Life Domains Scale, (Baker & Intagliata, 1982) later revised to the Life Satisfaction Profile (Bartlett & Intagliata, 1985). While these instruments differ in various ways from each other, a discussion of which is beyond the scope of this paper, they share a common conceptual base in a general quality of life theory which integrates access to resources, fulfillment of social roles in multiple life domains, satisfaction with life in various domains, and general life satisfaction into a multivariate model of well-being (Andrews & Withey, 1976; Campbell et al., 1976; Zautra & Goodhart, 1979). The consistency of findings from studies using these instruments supports certain preliminary conclusions about QOL assessments among the chronically mentally ill. (Baker & Intagliata, 1982; Bartlett & Intagliata, 1985; Bigelow et al., 1982; Bigelow & Gareau, 1983; Lehman, 1983a, Lehman, 1983b; Lehman et al., 1982; Lehman et al., 1986).

1. The chronically mentally ill can provide reasonably reliable information about their QOL.

2. Objective and subjective QOL indicators measure different aspects of QOL. Therefore, both types of indicators are recommended to provide a full view of QOL among the chronically mentally ill.

3. Certain aspects of psychopathology, specifically depression and anxiety, correlate moderately with subjective QOL indicators. This relationship must be kept in mind when interpreting QOL data from a mentally ill population. Psychopathology measures should be employed concurrently with QOL measures.

4. QOL indicators can differentiate among chronically mentally ill subpopulations and appear to be responsive to treatment interventions. Thus, they may offer sensitive discriminant outcome measures in this population.

This concordance of findings among existing studies is promising, but it may now be time to reflect upon the state of the art of these assessments and ask about their value and where we go from here. To sum up very broadly, the progress made during the past ten years in assessing QOL among the chronically mentally ill has moved us from an abstract interest in applying QOL theory in this population to the development of operational measures of QOL for the chronically mentally ill which are comparable to those that exist for the general population, the elderly, and the chronically physically ill (Andrews & Withey, 1976; Berg, Halluer, & Berk, 1976; Campbell et al., 1976; Evans et al., 1985; George & Bearon, 1980; Lawton, 1975; Najman & Levine, 1981). This progress now brings mental health services researchers face-to-face with some of the same issues and problems faced by other services researchers with regard to quality of life. What QOL measures should be used? What do QOL assessments tell us that other service assessment measures do not? Is it fair to apply broad QOL outcome criteria to health care and social service interventions, which may target more narrow outcomes? How can patient-derived QOL data be translated into policy and program changes and how ought these data be weighed in relation to other policy-relevant information, including expert opinion, community needs, and government priorities? Finally, can these assessments be of use to clinicians and other direct service providers in their day-to-day practice? Although much more work is needed to answer these questions, some comments and recommendations can be offered with regard to the chronically mentally ill on the basis of existing work.

What QOL measures should be used? The answer to this question depends, of course, upon what and how much one wants to know about QOL. The interview presented in this paper as well as the other instruments mentioned offer many options, ranging from very brief and global measures of life satisfaction to detailed assessments of QOL in multiple life areas. Our experience has been that many mental health services researchers are interested in the Quality of Life Interview, based upon requests for the interviews from around the United States, Canada, and Europe, and most of these researchers integrate subscales from the interview into their own survey instruments. This usage typifies how many assessment instruments are adapted for specific studies, but probably also reflects the continued lack of a definitive theory and method for assessing QOL among the chronically mentally ill. For the evaluator interested in a brief, global evaluation of QOL to broaden more program-specific or illness-related outcome information, the use of a general life satisfaction measure may be sufficient, as evidenced in some studies (Spivack, Siegel, Sklaver, Deuschle, & Garrett, 1982; Stein & Test, 1980). Others will want a more detailed QOL assessment, and the interview described here will provide this.

What do QOL assessments tell us that other service assessment measures do not? QOL assessments broaden program evaluations in two major ways. First, they tell us more about how patients are doing in various areas of their lives, areas beyond health specifically, but areas which may affect and

be affected by health. Second, they tell us about these things from the patients' perspective.

But this raises another question: Is it appropriate and fair to apply broad QOL outcome criteria to health care and social service interventions? One can argue that, while quality of life is important, it is unrealistic to measure specific programs against such an encompassing concept, one that is not always well formed. In our opinion, there are valid concerns about the misapplication of QOL assessments. QOL assessments cannot take the place of disease-specific outcome measures nor of more detailed outcomes related to a specific intervention program. QOL measures are not typically health (or illness) status measures. Take for illustration the evaluation of a combined treatment program of antipsychotic medications and sheltered workshop for young adults with chronic mental illness. Such an evaluation should include assessments of symptom response to the medications and acquisition of the job skills taught in the workshop. Program success in these two areas warrants a positive evaluation. Addition of a QOL assessment, as outlined in this paper, would extend the evaluation to other areas of potential impact, but would not take the place of the first two outcomes. On the basis of an extended QOL assessment, we might find that patients in the program are more satisfied, not only with their work and psychological health, but also with their social relations and their finances due to the new friends made at the workshop and because of additional wages earned. Conversely, we may find unexpected negative effects, such as an increased risk of being victimized on the way to work or increased dissatisfaction with their living situation due to their improved mental functioning relative to other patients with whom they live. As discussed below, such findings should not necessarily form the basis for a negative program evaluation, but instead could lead to further service development and revisions that may offset the unexpected negative effects. For example, a van service to transport patients to and from work might reduce the victimization and increase patients' willingness to stay in the work program. The risk in using QOL assessments is that they may become confused with specific health-status measures and either be used in their stead or be equated with them. If this confusion can be avoided, QOL assessments can only add to program evaluations.

How can QOL data be translated into policy and program changes and how ought these data be weighed in relation to other policy-relevant information? Again, looking at what QOL assessments add to service evaluations provides some answers. First, QOL assessments tell us about how patients perceive their well-being and provide information about what they value and want. Particularly for the chronically mentally ill, but for most patient populations in general, such information currently is seldom available to decision-makers, who may assume either that mentally ill patients cannot provide such information reliably or that their judgments will be similar to the more readily accessible opinions of experts, concerned citizens, or government officials. The data presented in this paper as well as by others (Bigelow et al., 1982) argue against prior assumptions of patient unreliability. Also, the pitfalls of "expert" opinions about what the chronically mentally ill need have been well documented and might be improved with some input from patients (Allen, 1974; Hornstra, Lubin, Lewis, & Willis, 1972; Linn, Klett, & Caffey, 1980; Van Putten & Spar, 1979; Wasylenki, Goering, Lancee, Fisher, & Freeman, 1981; Weinstein, 1979). Second, the QOL concept does broaden concerns about the impact of policies and programs beyond narrower illness-related outcomes. This is appropriate in regard to planning of services for the chronically mentally ill (Schulberg & Bromet, 1981)

and in fact reflects proposals at the federal level to integrate funding for services for the chronically mentally ill into a comprehensive psychiatric, social and support services program under a new social security title (Talbott & Sharfstein, 1986). Hence, methods for assessing impacts on QOL for the chronically mentally ill may be underrated as well as timely.

Finally, can QOL assessments be of more immediate use to clinicians and direct service providers on a day-to-day basis? Given their relative newness and rare application to date in clinical settings, this question eludes an answer at present. It may be argued that clinicians and other service providers make informal QOL assessments when they spend time "getting to know" the patient, learning what concerns him, what is important to him, the sources of gratification and dissatisfaction in his life. The underlying premise is that by knowing more about a person's particular perspective on himself, his life situation, and his illness, one can better serve him. With regard to the chronically mentally ill, the very few attempts to apply QOL assessment techniques clinically have focused on ascertainment of patients' priorities to guide the clinician in developing service plans or understanding how best to approach problems with patients. Malm, May, and Dencker (1981) recommended the use of a QOL checklist with schizophrenic patients as a guide for treatment planning and ongoing revision of therapeutic goals. Diamond (1985) provided case illustrations of the use of QOL assessments to monitor schizophrenic patients' responses to antipsychotic medications and to understand how individual patient priorities and preferences affect their attitudes toward the medications, their tolerance of side effects, and their acceptance or rejection of treatment. Finally, Liberman (personal communication) has proposed using QOL assessments as a prelude to individualized behavioral treatment programs for chronic mental patients. He hypothesizes that life areas of relative dissatisfaction may be the areas in which patients are most likely to be motivated to work for change. Conversely, efforts to effect change in life areas in which patients are relatively satisfied, no matter how objectively dysfunctional, may be frustrated due to the patients' lack of desire to change. Hence, we have some hints about how QOL assessments might be used clinically.

CONCLUSION

The eventual role that QOL assessment will play in the development and evaluation of policies and programs for the chronically mentally ill remains to be seen. The concept of QOL, both in planning and evaluation, fits current trends in thinking about the needs of the chronically mentally ill. Instruments, including the QOL Interview presented here, now exist to evaluate their QOL, although we may expect continued evolution of these measures as more mental health evaluators attempt to assess QOL. At this juncture, some form of QOL assessments are being employed in several longitudinal studies of treatment services for the chronically mentally ill. As these studies reach fruition, we will have a better idea of the value of QOL assessments in planning for our chronically mentally ill citizens.

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APPENDIX

EXAMPLES OF QUALITY OF LIFE INTERVIEW SCALES

Frequency of Social Contacts

About how often do you do the following things?
(Response options: 5 = about daily, 4 = about weekly, 3 = about monthly, 2 = less than monthly, 1 = never).

1. Join with other residents in the house/hospital to play cards, games, or some other activity?
2. Try to make friends with other residents in the house/hospital?
3. Sit and talk with other residents?
4. Talk to a staff member?
5. Visit with someone not in this house/hospital?
6. Telephone someone not in this house/hospital?
7. Write a letter to someone?
8. Do something with another person that you planned ahead of time?
9. Spend time with someone you consider more than a friend....like a boyfriend or girlfriend?
10. Spend time with close friends?

Satisfaction with Social Relations

How do you feel about:
(Response options: 1 = terrible, 2 = unhappy, 3 = mostly dissatisfied, 4 = mixed, about equally satisfied and dissatisfied, 5 = mostly satisfied, 6 = pleased, 7 = delighted).

1. The things you do with other people?
2. The amount of time you spend with other people?
3. The people you see socially?
4. How you get along with other people in general?
5. The chance you have to know people with whom you can really feel comfortable?
6. The amount of friendship in your life?
7. The amount of love in your life?
8. Your sex life?

Quantity of Leisure Activities

Which of the things listed in this sheet have you done during the **past week**?
Please say “Yes” or “No.”

1. went for a walk
2. went to a movie or play
3. watched TV
4. went shopping
5. went to a restaurant or coffee shop
6. went to a bar
7. read a book, magazine, or newspaper
8. listened to a radio
9. played cards
10. went for a ride in a bus or car
11. prepared a meal
12. worked on a hobby
13. played a sport
14. went to a meeting or some organization or social group
15. went to a park
16. went to a library

Satisfaction with Leisure Activities

How do you feel about:
(Response options: 1 = terrible, 2 = unhappy, 3 = mostly dissatisfied, 4 = mixed, about equally satisfied and dissatisfied, 5 = mostly satisfied, 6 = pleased, 7 = delighted)

1. The way you spend your spare time?
2. The amount of time you have to do the things you want to do?
3. The chance you have to enjoy pleasant or beautiful things?
4. The amount of fun you have?
S. The amount of relaxation in your life?
6. The pleasure you get from the TV or radio?

Section VI

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