

The Resilience, Adaptation and Well-Being Project



Family Hardiness Index

FHI

FHI:

Family Hardiness Index

Overview

The Family Hardiness Index (FHI) was developed by Marilyn McCubbin, Hamilton McCubbin, and Anne Thompson (1986) to measure the characteristic of hardiness as a stress resistance and adaptation resource in families which would function as a buffer or mediating factor in mitigating the effects of stressors and demands, and a facilitation of family resiliency adjustment and adaptation over time. Family hardiness specifically refers to the internal strengths and durability of the family unit and is characterized by a sense of control over the outcomes of life events and hardships, a view of change as beneficial and growth producing, and an active rather than passive orientation in adjusting to and managing stressful situations. The Family Hardiness Index is available in English and Spanish.

Development of FHI

The Family Hardiness Index (FHI) was developed to adapt the concept of individual hardiness to the family unit. Items were constructed to fit the three components of commitment, challenge and control and reflect a *we, rather than an I* orientation.

Family hardiness, in the context of the research done by the Family Stress, Coping and Health Project focuses upon the family's patterned approach to life's hardships and its typical pattern of appraising the impact of life events and changes on family functioning. In early research hardiness as applied to the family was thought to have four interrelated components. Specifically, family hardiness involves the family's co-oriented commitment or its working together to manage difficulties; its confidence in being able to handle problems; its emphasis on viewing hardships as challenges and the seeking of new life experiences as challenges; and its sense of internal control rather than being the victim of circumstances.

In more recent research, it has been found that the original three concepts used in personal hardiness research very adequately explain the concept of family hardiness and, in fact, are stronger psychometrically than the four component approach, though both approaches have strong reliability and validity and should be applied depending on the focus of the individual researcher. Recent research by the Family Stress, Coping and Health Project has focused on these three components of commitment, challenge and control.

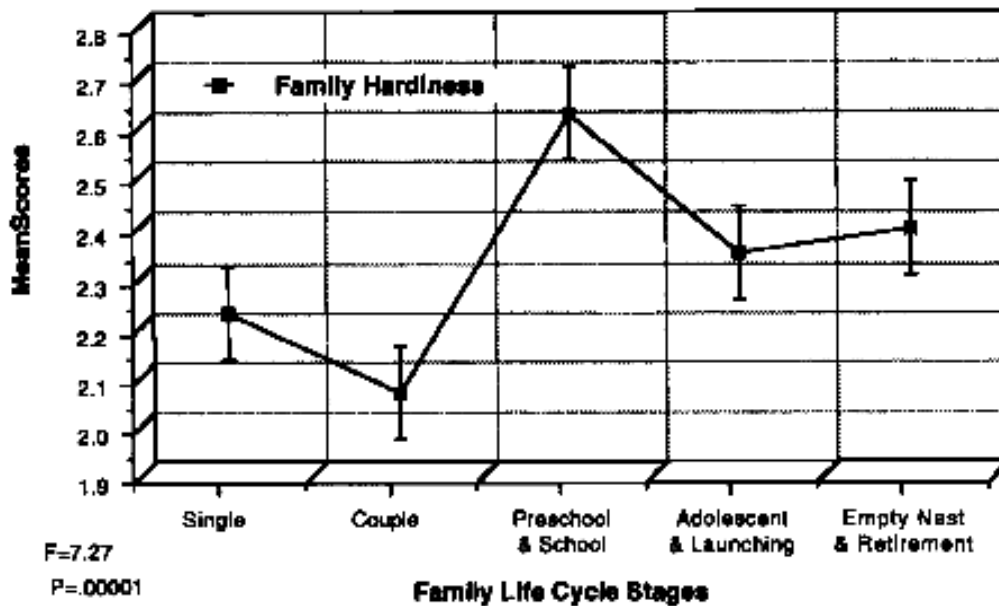
The Family Hardiness Index (Cronbach's alpha = .82) is a 20-item instrument consisting of either 3 or 4 factors, as just discussed, which calls for the respondent to assess the degree to which (False, Mostly False, Mostly True, True) each statement describes their current family situation. When applied to families, the dimension of hardiness is closely linked to the concept of family schema—the basic strength families call upon to manage the hardships and difficulties of transitions and crises.

In Figure 7.1 hardiness scores were plotted for each stage of the family life cycle. It appears as though hardiness is at its lowest point at the Single and Couple stages of the life cycle. It is also valid to note that the Family Hardiness scores are higher in each of the subsequent stages (Preschool and School Age, Adolescent and Launching, Empty Nest and Retirement) of the family life cycle.

Conceptual Organization

The construction of the Family Hardiness Index was guided by the concept of individual hardiness developed from the discipline of existential psychology by Kobasa (1979). Hardiness in individuals, as defined by Kobasa, is a personality characteristic encompassing both cognitive and behavioral components which acts as a stress resistance resource and has the potential to offset the illness producing effects of stress on individuals. This hardiness characteristic consists of three interrelated components: commitment, challenge and control. Commitment implies a curiosity about life, and a sense of the meaningfulness of life (Maddi, 1981); control encompasses the belief that one can influence the course of events (e.g., similar to an internal vs. external locus of control); and challenge reflects the belief that it is normal for life to change and that change brings about stimulation and growth rather than presenting a threat to security. These cognitive aspects are combined with behavioral indicators which show the hardy individual takes decisive action to find out more about life changes, transforms events in order to learn from them, and incorporates them into an ongoing life plan (Kobasa, Maddi, & Courington, 1981). Persons low in hardiness tend to feel alienated, powerless in the face of stressors and tend to be more vegetative than vigorous in their approach to the changing events in their lives.

Figure 7.1
Family Hardiness over the Life Cycle



Research on hardiness in individuals has been conducted solely on males who were middle and upper level executives (Kobasa, 1979) and lawyers (Kobasa, 1982). This research indicated that executives with high stress/low illness profiles were shown to be higher on hardiness than those with high stress/high illness outcomes. In a prospective study over a five year period, hardiness was shown to function as a resistance resource to buffer the effects of stressful life events and that this hardiness had its greatest health preserving effect when stressful life events increased (Kobasa, Maddi, & Kahn, 1982). The additional presence of personality based hardiness in an individual may also decrease the possibility of producing a stress-illness relationship (Kobasa, Maddi, & Courington, 1981) from the combined effects of

stressful life events and a constitutional predisposition to illness as measured by the parents' illness history.

Kobasa (1982) also found a significant relationship between stress experiences and complaints of physical and mental strain symptoms in lawyers. Measuring only the commitment aspect of hardiness in this occupational group, increases in strain symptoms were significantly determined by an alienation (vs. commitment) personality characteristic and the use of regressive coping techniques. These coping techniques would be characterized by the avoidance of the situation brought about by the stressor event, distracting actions, and a pessimistic appraisal of the event and its consequences.

The Family Hardiness Index uses basically the 'same set of components, with two slightly different sets of subscales available, a three and a four subscale solution. In the original four subscale solution, the subscales are:

- I. **Co-oriented Commitment.** An 8-item scale which measures the family's sense of internal strengths, dependability and ability to work together. Items: 4, 5, 6, 7, 9, 11, 13, 18.
- II. **Confidence.** A 4-item scale which measures the family's sense of being able to plan ahead, being appreciated for their efforts, their ability to endure hardships and experience life with interest and meaningfulness. Items: 2, 3, 8, 10.
- III. **Challenge.** A 5-item scale which measures the family's efforts to be innovative, active, to experience new things and to learn. Items: 12, 14, 15, 16, 17.
- IV. **Control.** A 3-item scale which measures the family's sense of being in control of family life rather than being shaped by outside events and circumstances. Items: 1, 19, 20.

In the newer three sub scale solution, the subscales are:

- I. **Commitment.** An 8-item scale which measures the family's sense of internal strengths, dependability and ability to work together. Items: 4, 5, 6, 7, 8, 9, 11, 18.
- II. **Challenge.** A 6-item scale which measures the family's efforts to be innovative, active, to experience new things and to learn. Items: 12, 13, 14, 15, 16, 17.
- III. **Control.** A 6-item scale which measures the family's sense of being in control of family life rather than being shaped by outside events and circumstances. Items: 1, 2, 3, 10, 19, 20.

Reliability

The overall internal reliability for FHI is .82 (Cronbach's alpha). For each of the subscales (Commitment, Challenge and Control) in the newer 3 subscale approach, the internal reliabilities are .81, .80, and .65 (Cronbach's alpha) respectively.

Validity

A reasonable set of tests to validate the measure of Family Hardiness includes the systematic examination of the association between hardiness and other criterion indices of family strengths hypothesized to be associated with hardiness. In an early investigation (H.I. McCubbin, A.I. Thompson, Pirner, & M.A. McCubbin, 1988), it was hypothesized that Family Hardiness, consisting of subscales of Control, Co-

oriented Commitment, Confidence, and Challenge would be positively correlated with criterion indices of Family Flexibility (i.e., the ability to change to meet challenges), Family Time and Routines (i.e., the ability to maintain stability and continuity), as well as with indices of Family Satisfaction, Marital Satisfaction, and Community Satisfaction. These hypotheses were confirmed (Table 7.1).

Test-Retest Reliability

The test-retest reliability for the Family Hardiness Index is .86.

Additional Validity Checks

No additional validity information is available at this time.

Table 7.1
Family Hardiness Index in Relationship to other Criterion Indices of Family Functioning

Criterion Indices	Correlation with the Family Criterion Indices Hardiness Index*
Family Flexibility (FACES 11-Olson, Portner, & Bell, 1982)	.22
Family Time and Routines (FTRI-McCubbin, McCubbin, & Thompson, 1986)	.23
Quality of Family Life (Olson & Barnes, 1982) an Adaptation of this measure	
Family Satisfaction	.20
Marital Satisfaction	.11
Community Satisfaction	.15

* p<.05

Scoring Procedures

To obtain a total score for Family Hardiness, the values of all the responses (i.e., False=0, Mostly False=1, Mostly True=2, and True =3, and Not Applicable=0) should be summed. For nine of the items, however, 1, 2, 3, S, 10, 14, 16, 19, and 20 the values should be reversed before summing (i.e., False=3, Mostly False=2, Mostly True=1, True=0, and Not Applicable=0).

Subscale scores are obtained by summing the number circled by the respondent (i.e., False=0, Mostly False=1, Mostly True=2, and True=3, and Not Applicable=0) for the items in each subscale. The following list will help you determine which items belong to each subscale for both of the subscale sets. Items that require reversal (i.e., 0=3, 1=2, 2=1, 3=0) before summing are marked with an asterisk in the right hand column.

For the four sub scale solution:

- Subscale 1: Co-oriented 4, 5,6,7,9,11,13,18
 Commitment
- Sub scale 2: Confidence 2*, 8*, 8*, 10*
- Sub scale 3: Challenge 12, 14*, 15, 16*, 17

Subscale 4: Control 1*, 19*, 20*

For the three subscale solution:

Subscale 1: Commitment 4, 5, 6, 7, 8*, 9, 11, 18

Sub scale 2: Challenge 12, 13, 14*, 15, 16*. 17

Subscale 3: Control 1*, 2*, 3*, 10*, 19*, 20*

Norms and/or Comparative Data

Normative data on this instrument are not available. However, it is important to note that the sample of 304 families does provide meaningful comparison data. The means and standard deviations are in Table 7.2 (H.I. McCubbin, A.I. Thompson, Pirner, & M.A. McCubbin, 1988).

Additional comparative data from several recent studies are also presented: 1) data for employees of a national insurance company are presented in Tables 7.3 through 7.6; 2) data for families with a member with chronic illness are presented in Tables 7.7 through 7.22; 3) data for farm families are presented in Tables 7.23 through 7.26; 4) data for families of Native Hawaiian ancestry are presented in Tables 7.27 through 7.30; 5) data for families of investment executives are presented in Tables 7.31 through 7.38; and 6) data for families of rural banking employees are presented in Tables 7.39 through 7.46.

Instrument Utilization for Research

To facilitate the review of research involving the use of FHI, a summary table of related publications is provided. This table includes the authors, subjects, reliabilities, and notations on findings. The results of our review of FHI are presented in Table 7.47.

Notes

1. The earlier writings on this instrument included a comprehensive description of the instrument's development. For the sake of brevity we limited the chapter to the basic information that users have requested and needed. If you desire a copy and are unable to find our earlier publications, either the 1987 or the 1991 edition, please write to us at the Center for Excellence in Family Studies, Family Stress, Coping and Health Project, University of Wisconsin-Madison, 1300 Linden Drive, Madison, WI 53706 or send email to manual@macc.wisc.edu. There will be a charge for these additional materials.
2. When referencing this instrument, the proper citation is: McCubbin, M.A., McCubbin, H.I., & Thompson, A.I. (1986). Family Hardiness Index (FHI). In H.I. McCubbin, A.I. Thompson, & M.A. McCubbin (1996). Family assessment: Resiliency, coping and adaptation-Inventory for research and practice. (pp. 239-305). Madison: University of Wisconsin System.

Table 7.2
Hardiness Raw Scores, Percentiles, Means and Standard Deviations

Raw Score	Number of Families	Percent of Families	Percentile
18	1	0.3	0.3
22	1	0.3	0.7
29	2	0.7	1.3
30	1	0.3	1.6
32	1	0.3	2.0
34	2	0.7	2.6
35	1	0.3	3.0
36	4	1.3	4.3
37	4	1.3	5.6
38	8	2.6	8.2
39	8	2.6	10.9
40	6	2.0	12.8
41	7	2.3	15.1
42	16	5.3	20.4
43	12	3.9	24.3
44	14	4.6	28.9
45	18	5.9	34.9
46	23	7.6	42.4
47	17	5.6	48.0
48	19	6.3	54.3
49	14	4.6	58.9
50	13	4.3	63.2
51	29	9.5	72.7
52	22	7.2	79.9
53	12	3.9	83.9
54	14	4.6	88.5
55	9	3.0	91.4
56	11	3.6	95.1
57	11	3.6	98.7
58	2	0.7	99.3
59	1	0.3	99.7
60	1	0.3	100.0

Mean = 47.385

Median = 48.00

Standard Deviation = 6.721

Range = 0.60

Table 7.8
Employees of a National Insurance Company Family Hardiness
(Commitment Seale)
(N=1401)

Raw Scores	Standard Scores	Cumulative Percentiles
0-6	-4.3	.1
7	-4.0	.2
8	-3.6	.4
9	-3.3	.6
10	-3.0	.9
11	-2.7	1.4
12	-2.4	2.2
13	-2.1	3.1
14	-1.7	5.1
15	-1.4	8.6
16	-1.1	18.7
17	-0.8	28.4
18	-0.5	37.9
19	-0.2	47.6
20	+0.2	57.7
21	+0.5	69.7
22	+0.8	79.5
23	+1.1	89.7
24	+1.4	100.0

Mean = 19.480

SD = 3.157

Range = 18

Kurtosis = .309

Skewness = -.576

Mode = 21.0

Table 7.4
Employees of a National Insurance Company Family Hardiness
(Challenge Scale)
(N=1395)

Raw Scores	Standard Scores	Cumulative Percentiles
0	-4.3	.1
1-2	-3.6	.1
3	-3.3	.4
4	-2.9	.8
5	-2.6	1.5
6	-2.3	2.5
7	-1.9	5.1
8	-1.6	8.6
9	-1.3	12.9
10	-0.9	19.8
11	-0.6	29.3
12	-0.3	45.4
13	+0.1	59.9
14	+0.4	70.2
15	+0.7	80.9
16	+1.1	89.9
17	+1.4	94.6
18	+1.8	100.0

Mean = 12.786

SD = 2.972

Range = 18

Kurtosis = .259

Skewness = -.444

Mode = 12.0

Table 7.5
Employees of a National Insurance Company Family Hardiness
(Control Scale)
(N=1386)

Raw Scores	Standard Scores	Cumulative Percentiles
0	-5.3	.1
1-3	-4.1	.1
4	-3.7	.2
5	-3.3	.4
6	-2.9	1.0
7	-2.6	1.6
8	-2.2	3.0
9	-1.8	5.7
10	-1.4	10.4
11	-1.0	20.3
12	-0.6	33.0
13	-0.2	45.3
14	+0.1	60.8
15	+0.5	74.2
16	+0.9	85.3
17	+1.3	94.4
18	+1.7	100.0

Mean = 13.642

SD = 2.595

Range = 8

Kurtosis = .497

Skewness = -.510

Mode = 14.0

Table 7.8
Employees of a National Insurance Company Family Hardiness
(Total Scale)
(N=1388)

Raw Scores	Standard Scores	Cumulative Percentiles
0-10	-5.0	.1
11-18	-3.9	.1
19-20	-3.6	.2
21	-3.4	.4
22	-3.3	.6
23-24	-3.0	.7
25-27	-2.6	.7
28	-2.6	1.2
29	-2.3	1.7
30	-2.2	2.3
31	-2.1	2.8
32	-1.9	4.1
33	-1.8	4.9
34	-1.6	6.7
35	-1.5	8.0
36	-1.4	10.8
37	-1.2	13.0
38	-1.1	15.7
39	-0.9	18.7
40	-0.8	23.7
41	-0.7	27.6
42	-0.6	31.3
43	-0.4	36.6
44	-0.3	40.3
45	-0.1	46.0
46	0.0	50.7
47	+0.2	54.8
48	+0.3	61.3
49	+0.4	65.5
60	+0.6	71.0
51	+0.7	76.5
62	+0.9	80.5
53	+1.0	84.9
54	+1.1	89.2
55	+1.3	92.3
56	+1.4	94.7
57	+1.5	96.9
58	+1.7	98.4
59	+1.8	99.0
60	+2.0	100.0

Mean = 45.848
SD = 7.228
Range = 50
Kurtosis = .317
Skewness = -.498
Mode = 48.0

Table 7.7
Mothers of Children with Cardiac Illness Time 1 Family Hardiness
(Commitment Scale)
(N=107)

Raw Scores	Standard Scores	Cumulative Percentiles
0.8	-8.5	.9
9-11	-2.6	1.9
12	-2.3	4.7
13	-2.0	6.5
14	-1.7	9.3
15	-1.4	12.1
16	-1.1	17.8
17	-0.8	24.3
18	-0.5	29.0
19	-0.2	38.3
00	+0.1	53.3
21	+0.4	72.0
22	+0.7	81.3
21	+1.0	90.7
24	+1.3	100.0

Mean = 19.561

SD = 3.331

Range = 16

Kurtosis = .798

Skewness = -.977

Mode = 21.0

Table 7.8
Mothers of Children with Cardiac Illness Time 1 Family Hardiness
(Challenge Scale)
(N=107)

Raw Scores	Standard Scores	Cumulative Percentiles
0-5	-2.6	1.9
6	-2.2	3.7
7	-1.9	5.6
8	-1.5	11.2
9	-1.2	15.0
10	-0.8	23.4
11	-0.5	32.7
12	-0.1	51.4
13	+0.2	69.2
14	+0.6	76.6
15	+0.9	87.9
16	+1.3	91.6
17	+1.6	98.1
18	+2.0	100.0

Mean = 12.318

SD = 2.844

Range = 13

Kurtosis = .005

Skewness = -.331

Mode = 12.0

Table 7.9
Mothers of Children with Cardiac Illness Time 1 Family Hardiness
(Control Scale)
(N=107)

Raw Score	Standard Scores	Cumulative Percentiles
0-6	-2.5	.9
7	-2.2	3.7
8	-1.8	7.5
9	-1.5	11.2
10	-1.1	20.6
11	-0.8	26.2
12	-0.4	35.5
13	-0.1	46.7
14	+0.3	65.4
15	+0.6	78.5
16	+1.0	88.8
17	+1.3	93.5
18	+1.7	100.0

Mean = 13.215

SD=2.865

Range = 12

Kurtosis = -.398

Skewness = -.414

Mode = 14.0

Table 7.10
Mothers of Children with Cardiac Illness Time 1 Family Hardiness
(Total Scale)
(N=107)

Raw Score	Standard Score	Cumulative Percentiles
0-27	-2.6	.9
28	-2.5	2.8
29	-2.3	4.7
30	-2.2	5.6
31	-2.0	7.5
32-33	-1.8	9.3
34	-1.6	10.3
35	-1.5	12.1
36	-1.3	14.0
37-38	-1.0	15.9
39	-0.9	16.8
40	-0.7	19.6
41	-0.6	23.4
42	-0.4	26.2
43	-0.3	31.8
44	-0.2	36.4
45	0.0	44.9
46	+0.1	49.5
47	+0.3	58.9
4B	+0.4	70.1
49	+0.6	72.0
50	+0.7	78.5
51	+0.9	82.2
52	+1.0	87.9
63	+1.1	94.4
54	+1.3	97.2
66	+1.4	99.1
56-60	+2.0	100.0

Mean = 45.093

SD = 6.878

Range = 32

Kurtosis = .357

Skewness = -.862

Mode = 48.0

Table 7.11
Fathers of Children with Cardiac illness Time 1 Family Hardiness
(Commitment Seale)
(N=92)

Raw Scores	Standard Scores	Cumulative Percentiles
0-6	-3.9	1.1
7-8	-3.3	2.2
9-10	-2.7	3.3
11-12	-2.1	4.3
13	-1.8	5.4
14	-1.5	7.6
15	-1.2	10.9
16	-0.9	17.4
17	-0.6	29.3
18	-0.3	35.9
19	0.0	47.8
20	+0.3	64.1
21	+0.6	72.8
22	+0.9	87.0
23	+1.2	97.8
24	+1.5	100.0

Mean = 19.065

SD = 3.367

Range = 18

Kurtosis = 2.586

Skewness = -1.294

Mode = 20.0

Table 7.12
Fathers of Children with Cardiac illness Time 1 Family Hardiness
(Challenge Scale)
(N=92)

Raw Scores	Standard Scores	Cumulative Percentiles
0-4	-2.9	2.2
5-7	-1.8	5.4
8	-1.4	10.9
9	-1.0	19.6
10	-0.7	25.0
11	-0.3	41.3
12	0.0	63.0
13	+0.4	73.9
14	+0.8	81.5
15	+1.1	90.2
16	+1.5	96.7
17	+1.9	98.9
18	+2.2	100.0

Mean = 11.870

SD = 2.734

Range = 14

Kurtosis = 3.76

Skewness = -.325

Mode = 12.0

Table 7.13
Fathers of Children with Cardiac Illness Time 1 Family Hardiness
(Control Scale)
(N=92)

Raw Scores	Standard Scores	Cumulative Percentiles
0-3	-3.1	1.1
4-5	-2.5	4.3
6	-2.1	5.4
7	-1.8	8.7
8-9	-1.2	15.2
10	-0.9	17.4
11	-0.6	28.3
12	-0.2	40.2
13	-0.1	53.3
14	+0.4	69.6
15	+0.7	80.4
16	+1.0	92.4
17	+1.3	95.7
18	+1.6	100.0

Mean = 12.783

SO = 3.165

Range = 15

Kurtosis = .694

Skewness = -.842

Mode = 14.0

Table 7.14
Fathers of Children with Cardiac Illness Time 1 Family Hardiness
(Total Scale)
(N=92)

Raw Scores	Standard Scores	Cumulative Percentiles
0-21	-3.2	1.1
22-24	-2.8	2.2
25	-2.7	3.3
26-28	-2.2	4.3
29	-2.1	5.4
30	-1.9	7.6
31	-1.8	8.7
32-34	-1.4	10.9
35	-1.2	13.0
36-37	-1.0	14.1
38	-0.8	15.2
39	-0.7	20.7
40	-0.5	22.8
41	-0.4	29.3
42	-0.2	38.0
43	-0.1	41.3
44	0.0	45.7
45	+0.2	57.6
46	+0.3	63.0
47	+0.5	69.6
48	+0.6	75.0
49	+0.7	79.3
50	+0.9	84.8
51	+1.0	91.3
52	+1.2	94.6
53	+1.3	95.7
54-55	+1.6	98.9
56-60	+1.7	100.0

Mean = 43.717
SD = 7.061
Range = 35
Kurtosis = 1.169
Skewness = -.995
Mode = 45.0

Table 7.15
Mothers of Children with Diabetes Time 1 Family Hardiness
(Commitment Scale)
(N=72)

Raw Scores	Standard Scores	Cumulative Percentiles
0-13	-2.4	1.4
14	-2.1	5.6
15	-1.7	9.7
16	-1.3	13.9
17	-0.9	20.8
18	-0.5	34.7
19	-0.2	44.4
20	+0.2	65.3
21	+0.6	79.2
22	+1.0	87.5
23	+1.3	93.1
24	+1.7	100.0

Mean = 19.444

SD = 2.653

Range = 11

Kurtosis = -.259

Skewness = -.348

Mode = 20.0

Table 7.16
Mothers of Children with Diabetes Time 1 Family Hardiness
(Challenge Scale)
(N=72)

Raw Scores	Standard Scores	Cumulative Percentiles
0-5	-2.9	1.4
6-7	-2.2	5.6
8-9	-1.4	11.1
10	-1.0	18.1
11	-0.7	25.0
12	-0.3	45.8
13	+0.1	61.1
14	+0.5	75.0
15	+0.9	83.3
16	+1.2	91.7
17-18	+1.6	100.0

Mean = 12.750

SD = 2.642

Range = 12

Kurtosis = .274

Skewness = -.494

Mode = 12.0

Table 7.17
Mothers of Children with Diabetes Time 1 Family Hardiness
(Control Scale)
(N=72)

Raw Scores	Standard Scores	Cumulative Percentiles
0-9	-2.4	1.4
10	-1.9	5.6
11	-1.5	11.1
12	-1.0	23.6
13	-0.6	38.9
14	-0.1	51.4
15	+0.4	69.4
16	+0.8	81.9
17	+1.3	94.4
18	+1.7	100.0

Mean = 14.222

SD = 2.209

Range = 9

Kurtosis = -.674

Skewness = -.209

Mode = 15.0

Table 7.18
Mothers of Children with Diabetes Time 1 Family Hardiness
(Total Scale)
(N=72)

Raw Scores	Standard Scores	Cumulative Percentiles
0-31	-2.5	1.4
32	-2.4	2.8
33-35	-1.9	4.2
36	-1.7	6.9
37	-1.5	11.1
38	-1.4	15.3
39	-1.2	16.7
40	-1.1	18.1
41-42	-0.7	20.8
43	-0.6	29.2
44	-0.4	33.3
45	-0.2	43.1
46	-0.1	48.6
47	+0.1	55.6
48	+0.3	62.5
49	+0.4	68.1
50-51	+0.8	72.2
52	+0.9	75.0
53	+1.1	88.9
54	+1.2	94.4
55	+1.4	98.6
56-60	+1.6	100.0

Mean = 46.417

SD = 6.111

Range = 25

Kurtosis = -.433

Skewness = -.492

Mode = 53.0

Table 7.19
Fathers of Children with Diabetes Time 1 Family Hardiness
(Commitment Scale)
(N=62)

Raw Scores	Standard Scores	Cumulative Percentiles
0-12	-2.9	1.6
13-15	-1.8	4.8
16	-1.4	17.7
17	-1.0	21.0
18	-0.6	32.3
19	.02	40.3
20	+0.2	61.3
21	+0.5	80.6
22	+0.9	85.5
23	+1.3	93.6
24	+1.7	100.0

Mean = 19.681

SD = 2.609

Range = 12

Kurtosis = -.031

Skewness = -.416

Mode = 20.0

Table 7.20
Fathers of Children with Diabetes Time 1 Family Hardiness
(Challenge Scale)
(N=62)

Raw Scores	Standard Scores	Cumulative Percentiles
0-6	-2.3	1.6
7-8	-1.6	6.5
9	-1.2	14.5
10	-0.8	30.6
11	-0.4	43.5
12	0.0	56.5
13	+0.3	69.4
14	+0.7	83.9
15	+1.1	88.7
16	+1.5	93.5
17	+1.9	96.8
18	+2.2	100.0

Mean = 12.129

SD = 2.614

Range = 12

Kurtosis = -.260

Skewness = .230

Mode = 10.0

Table 7.21
Fathers of Children with Diabetes Time 1 Family Hardiness
(Control Scale)
(N=62)

Raw Scores	Standard Scores	Cumulative Percentiles
0-2	-3.9	1.6
3-8	-1.9	3.2
9	-1.6	4.8
10	-1.2	11.3
11	-0.9	25.8
12	-0.5	37.1
13	-0.2	43.5
14	+0.1	59.7
15	+0.5	69.4
16	+0.8	85.5
17	+1.2	93.5
18	+1.5	100.0

Mean = 13.565

SD = 2.934

Range = 16

Kurtosis = 2.453

Skewness = -.979

Mode = 14.0

Table 7.22
Fathers of Children with Diabetes Time 1 Family Hardiness
(Total Seale)
(N=82)

Raw Scores	Standard Scores	Cumulative Percentiles
0-31	-2.3	1.6
32	-2.1	3.2
33-34	-1.8	4.8
35	-1.7	6.5
36	-1.5	9.7
37	-1.3	12.9
38	-1.2	16.1
39	-1.0	17.7
40	-0.8	21.0
41	-0.7	30.6
42	-0.5	32.3
43	-0.4	33.9
44	-0.2	40.3
45	0.0	48.4
46	+0.1	56.5
47	+0.3	64.5
48	+0.4	69.4
49	+0.6	75.8
50	+0.8	79.0
51	+0.9	83.9
52	+1.1	87.1
53	+1.3	93.5
54	+1.4	95.2
55-56	+1.7	98.4
57-60	+2.4	100.0

Mean = 45.242

SD = 6.201

Range = 29

Kurtosis = -.248

Skewness = -.160

Mode = 41.0

Table 7.23
Farm Families Family Hardiness
(Commitment Scale)
(N=419)

Raw Scores	Standard Scores	Cumulative Percentiles
0-6	-3.8	.5
7	-3.5	.7
8	-3.2	1.0
9	-2.9	1.2
10	-2.6	2.1
11-12	-2.0	3.3
13	-1.7	5.5
14	-1.5	8.6
15	-1.2	13.6
16	-0.9	23.6
17	-0.6	34.1
18	-0.3	42.7
19	0.0	53.5
20	+0.3	64.2
21	+0.6	74.9
22	+0.9	82.1
23	+1.2	92.4
24	+1.5	100.0

Mean = 18.938

SD = 3.399

Range = 18

Kurtosis = .643

Skewness = -.652

Mode = 19.0

Table 7.24
Farm Families Family Hardiness
(Challenge Scale)
(N=419)

Raw Scores	Standard Scores	Cumulative Percentiles
0	-3.5	.5
1	-3.2	.7
2	-2.9	1.4
3	-2.6	2.4
4	-2.3	3.1
5	-2.0	4.3
6	-1.7	7.2
7	-1.4	11.0
8	-1.1	15.3
9	-0.8	19.3
10	-0.5	29.1
11	-0.2	41.8
12	+0.1	54.4
13	+0.4	69.5
14	+0.7	78.8
15	+1.0	88.5
16	+1.3	94.0
17	+1.6	97.1
18	+1.9	100.0

Mean = 11.816

SD = 3.338

Range = 18

Kurtosis = .760

Skewness = -.697

Mode = 13.0

Table 7.25
Farm Families Family Hardiness
(Control Scale)
(N=419)

Raw Scores	Standard Scores	Cumulative Percentiles
0-4	-2.6	.2
5	-2.3	2.4
6	-2.0	5.3
7	-1.7	9.8
8	-1.3	15.5
9	-1.0	19.1
10	-0.7	26.0
11	-0.4	39.4
12	-0.1	51.8
13	+0.3	61.8
14	+0.6	74.7
15	+0.9	87.4
16	+1.2	92.8
17	+1.6	97.9
18	+1.9	100.0

Mean = 12.160

SD = 3.111

Range = 14

Kurtosis = -.446

Skewness = -.383

Mode = 11.0

Table 7.26
Farm Families Family Hardiness
(Total Scale)
(N=419)

Raw Scores	Standard Scores	Cumulative Percentiles
0-14	-3.6	.2
15-17	-3.3	.5
18-21	-2.8	1.0
22	-2.6	1.4
23-25	-2.3	2.9
26	-2.1	3.6
27	-2.0	4.5
28	-1.9	5.3
29	-1.7	6.4
30	-1.6	7.6
31	-1.5	8.6
32	-1.4	11.2
33	-1.2	12.4
34	-1.1	14.8
35	-1.0	17.2
36	-0.9	20.5
37	-0.7	23.4
38	-0.6	26.3
39	-0.5	30.5
40	-0.4	36.0
41	-0.2	39.4
42	-0.1	46.5
43	0.0	49.9
44	+0.1	53.0
45	+0.3	57.0
46	+0.4	62.5
47	+0.5	67.8
48	+0.6	71.1
49	+0.8	77.6
50	+0.9	82.8
51	+1.0	88.1
52	+1.1	90.2
53	+1.3	92.4
54	+1.4	95.7
55	+1.5	98.1
56	+1.6	99.0
57-58	+1.9	99.5
59	+2.0	99.8
60	+2.1	100.0

Mean = 42.914

SD = 7.953

Range = 46

Kurtosis = .129
Skewness = -.579
Mode = 42.0

Table 7.27
Families of Native Hawaiian Ancestry Family Hardiness
(Commitment Scale)
(N=194)

Raw Scores	Standard Scores	Cumulative Percentiles
0-8	-3.7	.5
9	-2.3	1.0
10	-3.0	1.5
11-12	-2.4	2.1
13	-2.1	3.6
14	-1.8	5.7
15	-1.5	11.3
16	-1.2	17.5
17	-0.9	24.7
18	-0.6	28.9
19	-0.2	38.7
20	+0.1	52.1
21	+0.4	65.5
22	+0.7	78.9
23	+1.0	88.7
24	+1.3	100.0

Mean = 19.778
SD = 3.225
Range = 16
Kurtosis = .666
Skewness = -.870
Mode = 20.0

Table 7.28
Families of Native Hawaiian Ancestry
Family Hardiness
(Challenge Scale)
(N=194)

Raw Scores	Standard Scores	Cumulative Percentiles
0-3	-3.2	.5
4	-2.9	1.0
5	-2.6	2.0
6	-2.3	4.1
7	-2.0	4.6
B	-1.7	8.2
9	-1.4	12.2
10	-1.1	19.4
11	-0.7	24.0
12	-0.4	35.2
13	-0.1	44.9
14	+0.2	60.7
15	+0.5	70.9
16	+0.8	80.1
17	+1.1	90.3
18	+1.4	100.0

Mean = 13.418

SD= 3.252

Range = 15

Kurtosis =.146

Skewness = -.674

Mode =14.0

Table 7.29
Families of Native Hawaiian Ancestry Family Hardiness
(Control Scale)
(N=194)

Raw Scores	Standard Scores	Cumulative Percentiles
0	-3.5	1.0
1-2	-3.0	1.6
3	-2.7	2.6
4	-2.4	4.2
5	-2.1	4.7
6	-1.8	5.2
7	-1.5	9.4
8	-1.2	15.1
9	-1.0	17.7
10	-0.7	25.5
11	-0.4	33.9
12	-0.1	44.3
13	+0.2	56.8
14	+0.5	68.2
15	+0.8	82.8
16	+1.1	92.7
17-18	+1.3	100.0

Mean = 12.333

SD = 3.486

Range = 17

Kurtosis = 1.159

Skewness = -1.048

Mode = 15.0

Table 7.30
Families of Native Hawaiian Ancestry Family Hardiness
(Total Scale)
(N=194)

Raw Scores	Standard Scores	Cumulative Percentiles
0-19	-3.5	.5
20-25	-2.7	1.6
26	-2.6	2.1
27-28	-2.3	3.2
29-30	-2.0	4.2
31	-1.9	5.3
32-33	-1.6	7.4
34	-1.5	8.9
35	-1.4	11.6
36	-1.2	13.7
37	-1.1	15.3
38	-1.0	19.5
39	-0.9	20.5
40	-0.7	23.7
41	-0.6	27.4
42	-0.5	30.5
43	-0.3	35.8
44	-0.2	38.9
45	-0.1	48.2
46	+0.1	50.5
47	+0.2	55.3
48	+0.3	60.5
49	+0.5	65.8
50	+0.6	69.5
51	+0.7	75.8
52	+0.8	78.9
53	+1.0	85.3
54	+1.1	89.5
55	+1.2	93.2
56	+1.4	96.3
57	+1.5	99.5
58-60	+1.8	100.0

Mean = 45.542

SD = 7.658

Range = 40

Kurtosis = .229

Skewness = -.702

Mode = 46.0

Table 7.31
Investment Executives Family Hardiness
(Commitment Scale)
(N=292)

Raw Scores	Standard Scores	Cumulative Percentiles
0-5	-4.0	.3
6	-3.7	.7
7-9	-2.9	2.1
10	-2.6	2.4
11	-2.3	3.1
12	-2.0	4.1
13	-1.7	6.5
14	-1.5	8.6
15	-1.2	12.0
16	-0.9	20.2
17	-0.6	31.5
18	-0.3	37.7
19	-0.1	49.3
20	+0.2	58.9
21	+0.5	71.6
22	+0.8	79.5
23	+1.1	88.4
24	+1.3	100.0

Mean = 19.219

SD = 3.558

Range = 19

Kurtosis = 1.037

Skewness = -.854

Mode = 21.0

Table 7.32
Investment Executives Family Hardiness
(Challenge Scale)
(N=292)

Raw Scores	Standard Scores	Cumulative Percentiles
0-3	-3.1	.3
4-5	-2.4	1.0
6	-2.1	1.7
7	-1.8	6.5
8	-1.4	11.6
9	-1.1	16.7
10	-0.8	26.9
11	-0.4	37.1
12	-0.1	55.4
13	+0.2	67.3
14	+0.6	73.1
15	+0.9	82.3
16	+1.2	90.1
17	+1.6	96.6
18	+1.9	100.0

Mean =12.330

SD = 3.003

Range =15

Kurtosis = -.419

Skewness = -.121

Mode =12.0

Table 7.33
Investment Executives Family Hardiness
(Control Scale)
(N=292)

Raw Scores	Standard Scores	Cumulative Percentiles
0-6	-3.1	.3
7	-2.7	.7
8	-2.3	2.1
9	-1.9	5.8
10	-1.5	9.6
11	-1.1	21.3
12	-0.7	32.0
13	-0.3	45.0
14	+0.1	59.8
15	+0.5	73.5
16	+0.9	88.3
17	+1.4	94.8
18	+1.8	100.0

Mean =13.667
SD =2.468
Range =12
Kurtosis = -.398
Skewness = -.316
Mode =14.0

Table 7.34
Investment Executives Family Hardiness
(Total Scale)
(N=292)

Raw Scores	Standard Scores	Cumulative Percentiles
0-24	-2.9	.3
25	-2.7	1.0
26-27	-2.5	2.1
28	-2.3	2.8
29	-2.2	3.1
30	-2.1	4.5
31	-1.9	5.9
32	-1.8	6.6
33	-1.6	7.7
34	-1.5	8.4
35	-1.4	10.5
36	-1.2	12.5
37	-1.1	14.3
38	-1.0	17.4
39	-0.8	20.9
40	-0.7	25.4
41	-0.6	28.2
42	-0.4	35.5
43	-0.3	38.3
44	-0.2	43.6
45	0.0	47.0
46	+0.1	53.0
47	+0.2	59.9
48	+0.4	63.4
49	+0.5	68.3
50	+0.7	73.5
51	+0.8	77.0
52	+0.9	82.9
53	+1.1	89.2
54	+1.2	93.0
55	+1.3	94.1
66	+1.5	95.1
57	+1.6	97.6
58	+1.7	98.6
59	+1.9	99.3
60	+2.0	100.0

Mean = 45.178
SD = 7.402
Range = 36
Kurtosis = -.098
Skewness = -.489
Mode = 42.0

Table 7.36
Spouses of Investment Executives Family Hardiness
(Commitment Scale)
(N=227)

Raw Scores	Standard Scores	Cumulative Percentiles
0-3	-4.9	.4
4	-4.6	.9
5	-4.3	1.3
6-9	-3.1	1.8
10-12	-2.3	3.1
13	-2.0	3.5
14	-1.7	6.2
15	-1.4	8.8
16	-1.1	13.2
17	-0.8	19.8
18	-0.5	29.5
19	-0.2	38.8
20	0.0	49.8
21	+0.3	63.9
22	+0.6	77.1
23	+0.9	88.5
24	+1.2	100.0

Mean = 19.859

SD = 3.456

Range = 21

Kurtosis = 4.766

Skewness = -1.633

Mode = 21.0

Table 7.36
Spouses of Investment Executives Family Hardiness
(Challenge Scale)
(N=227)

Raw Scores	Standard Scores	Cumulative Percentiles
0-3	-3.2	.4
4-5	-2.5	1.3
6	-2.2	3.5
7	-1.9	6.6
8	-1.6	10.2
9	-1.2	15.5
10	-0.9	19.5
11	-0.6	27.4
12	-0.3	43.4
13	0.0	54.4
14	+0.4	69.0
15	+0.7	79.2
16	+1.0	88.9
17	+1.3	93.8
18	+1.7	100.0

Mean = 12.863

SD = 3.092

Range = 15

Kurtosis = -.038

Skewness = -.499

Mode = 12.0

Table 7.37
Spouses of Investment Executives Family Hardiness
(Control Scale)
(N=227)

Raw Scores	Standard Scores	Cumulative Percentiles
0-4	-3.9	.4
5	-3.5	.9
6-7	-2.8	1.8
8-9	-2.0	5.8
10	-1.6	9.3
11	-1.2	15.0
12	-0.8	24.3
13	-0.4	37.2
14	0.0	52.7
15	+0.4	69.5
16	+0.8	83.6
17	+1.2	93.8
18	+1.6	100.0

Mean = 14.031

SD = 2.546

Range = 14

Kurtosis = .956

Skewness = -.794

Mode = 15.0

Table 7.38
Spouses of Investment Executives Family Hardiness
(Total Seale)
(N=227)

Raw Scores	Standard Scores	Cumulative Percentiles
0-19	-3.6	.9
20-21	-3.4	1.4
22-25	-2.9	1.8
26-28	-2.5	2.3
29	-2.3	2.7
30	-2.2	3.6
31	-2.1	4.5
32	-1.9	5.5
33	-1.8	6.4
34	-1.7	7.7
35	-1.5	8.6
36-37	-1.3	11.4
38	-1.2	12.3
39	-1.0	14.5
40	-0.9	17.7
41	-0.8	21.8
42	-0.6	23.2
43	-0.5	28.2
44	-0.4	33.6
45	-0.2	38.2
46	-0.1	42.7
47	0.0	46.4
48	+0.2	54.1
49	+0.3	58.6
50	+0.4	64.1
51	+0.6	69.5
52	+0.7	75.0
53	+0.8	80.9
54	+0.9	86.4
55	+1.1	90.9
56	+1.2	94.5
57	+1.3	97.3
58	+1.5	98.2
59	+1.6	99.1
60	+1.7	100.0

Mean = 46.786

SD = 7.632

Range = 41

Kurtosis = 1.302

Skewness = -.992

Mode = 48.0

Table 7.39
Rural Banking Employees Family Hardiness
(Commitment Scale)
(N=798)

Raw Scores	Standard Scores	Cumulative Percentiles
0-3	-4.7	.5
4-5	-4.1	.8
6-7	-3.5	.9
8	-3.3	1.1
9	-3.0	1.4
10	-2.7	1.5
11	-2.4	1.9
12	-2.1	3.1
13	-1.8	4.5
14	-1.5	5.9
15	-1.2	9.0
16	-0.9	23.2
17	-0.6	34.6
18	-0.3	41.2
19	0.0	52.1
20	+0.3	62.0
21	+0.6	73.8
22	+0.9	82.1
23	+1.1	90.7
24	+1.4	100.0

Mean = 19.084

SD = 3.410

Range = 21

Kurtosis = 2.321

Skewness = -.926

Mode = 16.0

Table 7.40
Rural Banking Employees Family Hardiness
(Challenge Scale)
(N=798)

Raw Scores	Standard Scores	Cumulative Percentiles
0-2	-4.0	.1
3	-3.6	.3
4	-3.2	.4
5	-2.8	1.1
6	-2.4	1.6
7	-2.0	3.5
8	-1.7	8.0
9	-1.3	15.3
10	-0.9	21.7
11	-0.5	32.5
12	-0.1	52.1
13	+0.3	68.1
14	+0.6	80.9
15	+1.0	87.4
16	+1.4	94.1
17-18	+1.8	100.0

Mean = 12.327

SD = 2.603

Range = 15

Kurtosis = .206

Skewness = -.364

Mode = 12.0

Table 7.41
Rural Banking Employees Family Hardiness
(Control Scale)
(N=198)

Raw Scores	Standard Scores	Cumulative Percentiles
0-2	-4.1	.1
3	-3.7	.3
4	-3.3	.5
5	-3.0	.8
6	-2.6	1.8
7	-2.2	2.9
8	-1.9	4.4
9	-1.5	8.5
10	-1.1	15.7
11	-0.8	27.9
12	-0.4	39.6
13	-0.1	53.1
14	+0.3	65.5
15	+0.7	78.5
16	+1.0	90.0
17	+1.4	95.4
18	+1.8	100.0

Mean = 13.150

SD = 2.740

Range = 16

Kurtosis = .272

Skewness = -.463

Mode = 13.0

Table 7.42
Rural Banking Employees Family Hardiness
(Total Scale)
(N=798)

Raw Scores	Standard Scores	Cumulative Percentiles
0-13	-4.6	.1
14-17	-4.0	.3
18-20	-3.6	.4
21	-3.4	.6
22-23	-3.1	.8
24-26	-2.7	1.0
27	-2.5	1.5
28	-2.4	1.7
29	-2.2	2.4
30	-2.1	2.9
31	-2.0	3.5
32	-1.8	4.7
33	-1.7	5.5
34	-1.5	7.1
35	-1.4	9.1
36	-1.2	10.6
37	-1.1	13.6
38	-0.9	17.6
39	-0.8	22.1
40	-0.7	26.3
41	-0.5	32.4
42	-0.4	38.5
43	-0.2	44.2
44	-0.1	49.2
45	+0.1	54.0
46	+0.2	58.8
47	+0.4	64.2
48	+0.5	68.8
49	+0.6	74.5
50	+0.8	78.5
51	+0.9	82.1
52	+1.1	86.9
53	+1.2	90.5
54	+1.4	93.2
55	+1.5	96.3
56	+1.7	98.6
57	+1.8	99.4
58	+1.9	99.6
59-60	+2.1	100.0

Mean = 44.554
SD = 6.915
Range = 46
Kurtosis = .651
Skewness = -.521
Mode = 41.0

Table 7.43
Spouses of Rural Banking Employees Family Hardiness
(Commitment Scale)
(N=448)

Raw Scores	Standard Scores	Cumulative Percentiles
0-8	-3.8	.2
9-10	-3.1	.4
11	-2.8	.7
12	-2.5	1.1
13	-2.1	2.5
14	-1.8	3.8
15	-1.5	8.9
16	-1.2	17.9
17	-0.8	30.1
18	-0.5	36.8
19	-0.2	48.2
20	+0.2	58.7
21	+0.5	70.1
22	+0.8	78.8
23	+1.1	87.7
24	+1.5	100.0

Mean = 19.538
SD = 3.064
Range = 16
Kurtosis = -.393
Skewness = -.330
Mode = 17.0

Table 7.44
Spouses of Rural Banking Employees Family Hardiness
(Challenge Scale)
(N=448)

Raw Scores	Standard Scores	Cumulative Percentiles
0-3	-3.5	.2
4	-3.1	.4
5	-2.7	.7
6	-2.3	1.3
7	-1.9	4.5
8	-1.6	10.1
9	-1.2	15.0
10	-0.8	24.4
11	-0.4	39.0
12	0.0	58.7
13	+0.3	72.9
14	+0.7	82.1
15	+1.1	89.0
16	+1.5	92.4
17-18	+1.9	100.0

Mean = 12.092

SD = 2.629

Range = 14

Kurtosis = -.009

Skewness = -.123

Mode = 12.0

Table 7.45
Spouses of Rural Banking Employees Family Hardiness
(Control Scale)
(N=448)

Raw Scores	Standard Scores	Cumulative Percentiles
0-4	-3.5	.2
5	-3.1	.9
6	-2.8	1.8
7	-2.4	2.2
8	-2.0	4.0
9	-1.7	7.0
10	-1.3	11.5
11	-1.0	21.8
12	-0.6	31.9
13	-0.3	42.7
14	+0.1	56.9
15	+0.4	69.7
16	+0.8	82.2
17	+1.1	90.3
18	+1.5	100.0

Mean = 13.769

SD = 2.824

Range = 14

Kurtosis = .124

Skewness = -.554

Mode = 14.0

Table 7.46
Spouses of Rural Banking Employees Family Hardiness
(Total Scale)
(N-448)

Raw Scores	Standard Scores	Cumulative Percentiles
0-20	-3.9	.2
21	-3.7	.5
22-29	-2.5	.9
30	-2.3	1.4
31	-2.2	2.3
32	-2.0	3.2
33	-1.9	5.2
34	-1.7	6.8
35	-1.6	7.9
36	-1.4	9.3
37	-1.3	12.2
38	-1.1	15.6
39	-1.0	18.6
40	-0.8	21.5
41	-0.7	25.2
42	-0.5	30.8
43	-0.4	34.9
44	-0.2	40.4
45	-0.1	48.8
46	+0.1	55.6
47	+0.2	60.5
48	+0.4	66.9
49	+0.6	73.7
50	+0.7	78.0
51	+0.9	82.3
52	+1.0	86.6
53	+1.2	89.8
54	+1.3	92.3
55	+1.5	94.8
56	+1.6	96.4
57	+1.8	98.4
58	+1.9	98.9
59-60	+2.1	100.0

Mean = 45.370

SD = 6.557

Range = 39.0

Kurtosis = .288

Skewness = -.425

Mode = 45.0

Table 7.47
Family Hardiness Index (FHI): Select Published Reports

Author(s)	Sample	N Count	Alpha Reliability	Validity Notes
Boisen, M.A. (1992)	N/A	N/A	N/A	<ul style="list-style-type: none"> • Doctoral Dissertation
Donnelly, E. (1994)	Families of children with asthma	27	.82	<ul style="list-style-type: none"> • Asthma not related to family hardiness • Hardiness correlated with family cohesion & adaptability
Dunkin, J., Holzwarth, C., & Stradon, T. (1993)	Individuals attending a meeting at farm union in rural Midwest community	206	.80	<ul style="list-style-type: none"> • Occupation of spouse was significantly related to family hardiness. • At the .05 level, urban groups were found to be significantly higher on family hardiness.
Failla, S. (1989)	Caregivers of children with cognitive and/or physical disabilities	63	N/A	<ul style="list-style-type: none"> • Doctoral Dissertation
Failla, S., & Jones, L.C. (1991)	Mothers with one developmentally disabled child, aged 6 years or younger	57	.82	<ul style="list-style-type: none"> • Family hardiness was significantly related to satisfaction with family functioning as well as use of coping behaviors which strengthen family relationships & family life.
Fink, S. (1995)	Individuals most involved in the care of a family member age 60 or older	65	.87	<ul style="list-style-type: none"> • Family hardiness was significantly & positively related to family well-being. • Family hardiness was negatively related to family strains.
Henkle, J. (1993)	N/A	N/A	N/A	<ul style="list-style-type: none"> • Doctoral Dissertation
Huang, C. (1995)	N/A	N/A	N/A	<ul style="list-style-type: none"> • Literature review of hardiness measures
Jennings, B., & Staggers, N. (1994)	N/A	N/A	N/A	<ul style="list-style-type: none"> • Review of family & individual hardiness
Lusting, D. (1994)	N/A	N/A	N/A	<ul style="list-style-type: none"> • Doctoral Dissertation

Table 7.47 cont.
Family Hardiness Index (FHI): Select Published Reports

Author(s)	Sample	N Count	Alpha Reliability	Validity Notes
Lusting, D. (1995)	Parents of adult children with mental retardation who were entering or had recently entered supported employment	117	.82	<ul style="list-style-type: none"> • A significant positive relationship between family hardiness & family adaptation was found.
McCubbin, H.I., McCubbin, M.A., & Thompson, A.I. (1993)	Families of varying race: Caucasian (78), Asians (49), Hawaiian (37), & mixed race	200	.82	<ul style="list-style-type: none"> • Family hardiness was an important buffer against family distress in Hawaiian families.
McCubbin, H.I., McCubbin, M.A., Thompson, A.I., & Thompson, E.A. (1995)	Native Hawaiian families	115	N/A	<ul style="list-style-type: none"> • Structural equation analysis revealed a significant positive relationship between family hardiness & family problem solving communication; & family hardiness is indirectly & (through problem solving negatively related to family dysfunction.
McCubbin, H.I. & Thompson, A.I. (1989)	Investment executives of a regional investment firm with branch offices in sixteen states, & their spouses	311	.82	<ul style="list-style-type: none"> • Couples in preschool stage of life cycle showed the highest levels of hardiness, those in launching stage, the lowest. • Hardiness shown to be buffer related to spouses emotional distress following market crisis.
McCubbin, H.I. & Thompson, A.I. (1992)	Multiracial families	200	.82	<ul style="list-style-type: none"> • Family hardiness was significantly related to family well-being for all ethnic groups (Caucasian, Asian, Hawaiian, & mixed race).

Table 7.47 cont.
Family Hardiness Index (FHI): Select Published Reports

Author(s)	Sample	N Count	Alpha Reliability	Validity Notes
McCubbin, H.I., Thompson, A.I., Kretzschmar, H., Smith, F., Snow, P., McEwen, M., Elver, K., & McCubbin, M.A. (1992)	Female & male employees who are part of a longitudinal study of work, families & health	156	.82	<ul style="list-style-type: none"> • Resilient (low health risk) & vulnerable (high health risk) male & female employees were studied. • Resilient male employees classified (84.6%) accuracy on basis of work & family variables including one hardiness factor. • Resilient female employees classified (87.6%) accuracy using work & family variables including 3 hardiness factors as predictors.
McCubbin, H.I., Thompson, A.I., Pirner, P., & McCubbin, M.A. (1988)	Families associated with a large nationally recognized insurance company	304	.82	<ul style="list-style-type: none"> • FHI one of several instruments used to develop family typologies. • Family hardiness gains importance at the preschool, school age, adolescent & launching, & empty nest & retirement stages of the family life cycle. • Relationship between resilient families & hardiness was a positive & strong one. • Rhythmic & traditional families were also correlated with high levels of hardiness & marital satisfaction.
McCubbin, H.I., Thompson, A.I., Thompson, E.A., Elver, K., & McCubbin, M.A. (1994)	Native Hawaiian families	155	.89	<ul style="list-style-type: none"> • Family hardiness was a critical factor in predicting family dysfunction. • Hardiness was significantly related to family problem solving communication & indirectly (through problem solving) inversely to family dysfunction

Table 7.47 cont.
Family Hardiness Index (FHI): Select Published Reports

Author(s)	Sample	N Count	Alpha Reliability	Validity Notes
McCutchan, J. (1993)	N/A	N/A	N/A	• Doctoral Dissertation
McNurlen, G.M. (1993)	N/A	N/A	N/A	• Doctoral Dissertation
Stephenson, A., Henry, C., & Robinson, L. (1996)	High school students from 2 public high schools in a southwestern state	253	.87	• Family hardiness was significantly related (negatively) to lower adolescent substance use.

FHI

FAMILY HARDINESS INDEX

Xhosa Version

FHI

INKQUBO: Nceda funda inkcazo nganye elapha ngezantsi uze uchaze ukuba inkcazo nganye iluchaza kangakanani na usapho lwakho. Ingaba inkcazo **AYIYONYANI (FALSE)**, **AYIYONYANI KAKHULU(MOSTLY FALSE)**, **YINYANI KAKHULU(MOSTLY TRUE)**, **YINYANI(TRUE)**, okanye **AYISEBENZISEKI(NOT APPLICABLE)** elusatsheni lwakho? Nceda bonisa impendulo yakho kwizithuba ezilungiselwe oko.

Elusatsheni lwethu	FALSE	MOSTLY FALSE	MOSTLY TRUE	TRUE	N/A
1. Inkathazo yenzeka ngenxa yempazamo esizenzayo					
2. Ayibobulumko ukulungiselela kwangaphambili uthemba kuba izinto azenzeki phofu					
3. Umsebenzi wethu nemizamo yethu awubonwa nokuba singazama sisebenze kangakanani na					
4. Ethubeni, izinto ezimbi ezenzekayo kuthi zilinganiswa nezinto ezintle ezenzekayo					
5. Siziva somelele naxa simelene neengxaki ezinkulu					
6. Amaxesha amaninzi ndiziva ndiqinisekile ukuba nakumaxesha obunzima izinto zizakulunga					
7. Naxa singasoloko sivuma, sinako ukuthemba omnye nomnye ukuba abe secaleni lethu ngamaxesha afuna oko					
8. Siziva singenakho ukuphila ukuba enye ingxaki ingasithwaxa					
9. Sikholelwa ekubeni izinto zizakulunga ukuba sisebenza kunye njengosapho					
10. Ubomi bukhangeleka bumfiliba bungenantsingiselo					
11. Sisokola sonke sancedane nokuba sekutheni					
12. Xa usapho lwethu lulungiselela izinto sizama izinto ezilula nezinomdla					
13. Simamela iingxaki zabanye, iintlungu nezoyiko					
14. Siye senze izinto ezinye amaxesha ngamaxesha.....ithath' ixesha					
15. Sikhangeleka sikhuthazana omnye nomnye ukwenza izinto ezintsha					
16. Kulungile ukuhlala ekhaya kunokuphuma wenze izinto nabanye					
17. Ukuququzela nokufunda izinto ezintsha kuyakhuthaza					
18. Sisebenza kunye ukusombulula iingxaki					
19. Izinto ezininzi ezibuhlungu ezenzekayo zenziwa lilishwa					
20. Siyakholelwa ukuba ubomi bethu bulawulwa ziingozi nentlahla					