

FATIGUE

Results of ESCAP Testing

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Questions Used in ESCAP Cognitive Test

Questions	Response Options
10.1a Do you have frequent feelings of being tired?	1) Yes 2) No <i>If No, go to next section.</i>
10.2 In the past 3 months, how often did you feel tired? Some days, most days, or every day?	1) Some days 2) Most days 3) Every day
10.3 Thinking about the last time you felt tired, how long did the tiredness last? Some of the day, most of the day, or all of the day?	1) Some of the day 2) Most of the day 3) All of the day
10.4 Thinking about the last time you felt tired, how would you describe the level of tiredness? Mild, moderate or severe?	1) Mild 2) Moderate 3) Severe
10.5 Thinking about the last time you felt tired, was the tiredness worse than usual, better than usual, or about the same as usual?	1) Worse than usual 2) About the same as usual 3) Better than usual
11.1ai How old were you when the tiredness began?	_____ age in years
12.1i Is your tiredness due to a health problem or something else?	1) Due to a health problem 2) Something else: _____
13.1i Does your tiredness limit your ability to carry out daily activities?	1) Yes 2) No
13.2bi Does your tiredness limit your ability to carry out other activities that are not part of your day-to-day life?	1) Yes 2) No

Results of Cognitive Tests

- ▶ Cognitive stories provided many explanations for the tiredness described by the questions on frequency and intensity.
 - The tiredness was a result of a lot of physical activity or lack of sleep (such as having a new baby).
 - Other explanations were more health related such as caused by pain or the side effect of medication.
 - Other responses included that the tiredness was seasonal or usual.
- ▶ Some respondents asked for clarification in an effort to differentiate usual tiredness from tiredness associated with other factors.
- ▶ In all, the results of the cognitive testing was not definitive.
 - Some small changes were made to the field test questions, additional questions were also included in the field test in order to get a better understanding of the interpretation of the fatigue questions.
 - In question 3 the reply categories were changed since respondents to the cognitive questions appeared to have difficulty applying the categories mild, and moderate to the experience of fatigue.

First Half of Field Testing Questionnaire

Questions	Response Options
<p>TIRED_1 In the past 3 months, how often did you feel very tired or exhausted?</p>	<p>1) Never 2) Some Days 3) Most Days 4) Everyday 7) Refused 9) Don't know</p> <p><i>If "Never" to TIRED_1, skip to Section L : Needs for Assistance, Health Conditions and Impairments.</i></p>
<p>TIRED_2 Thinking about the last time you felt very tired or exhausted, how long did it last?</p>	<p>1) Some of the day 2) Most days 3) Every day</p>
<p>TIRED_3 Thinking about the last time you felt this way, how would you describe the level of tiredness?</p>	<p>1) A little 2) A lot 3) Somewhere in between a little and a lot 7) Refused 9) Don't know</p> <p><i>If "Somewhere in between a little and a lot" to TIRED_3, continue with TIRED_4. Otherwise, skip to P_TIRED_4.</i></p>
<p>TIRED_4 Would you say it was closer to a little, closer to a lot, or exactly in the middle?</p>	<p>Would you say it was closer to a little, closer to a lot, or exactly in the middle?</p> <p>1) Closer to a little 2) Closer to a lot 3) Exactly in the middle 7) Refused 9) Don't know</p>

Second Half of Field Test Questionnaire

<p>P_TIRED_4 Is your tiredness the result of any of the following?</p>	<p>a) Too much work or exercise? b) Not getting enough sleep? c) A physical or health-related problem? d) Something else? (please specify):</p> <hr/> <p><i>Each category above has response options of:</i></p> <p>1) Yes 2) No 7) Refused 8) Not applicable 9) Don't know</p>
<p>TIRED_5 How old were you when the tiredness began?</p>	<p>_____ Age in years 777. <i>Refused</i> 999. <i>Don't know</i></p>
<p>TIRED_6 How much does your tiredness limit your ability to carry out daily activities?</p>	<p>1. Not at all 2. A little 3. A lot 4. Completely 7. <i>Refused</i> 9. <i>Don't know</i></p>

ESCAP Field Test

- Conducted in six countries
 - Kazakhstan, Cambodia, Sri Lanka, Maldives, Mongolia, Philippines
- Total of 6309 responded to the fatigue questions
- Analyses that follow use that data to examine relationship among the questions asked.

Proportion in Each Country Indicating Some Level of Fatigue

Acknowledge Some Level of Fatigue	Kazakhstan	Cambodia	Sri Lanka	Maldives	Mongolia	Philippines	All Countries
Yes	63.4	59.0	11.3	34.5	53.6	59.2	47.3
No	36.5	40.8	88.0	65.2	46.2	40.8	52.5
Refused	0.0	0.0	0.1	0.2	0.0	0.0	0.0
Don't know	<u>0.1</u>	<u>0.2</u>	<u>0.6</u>	<u>0.1</u>	<u>0.2</u>	<u>0.0</u>	<u>0.2</u>
	100	100	100	100	100	100	100
N	(1000)	(1008)	(1000)	(1013)	(1222)	(1066)	(6309)

Relationship of Intensity of Fatigue to Duration of Fatigue

Intensity of Fatigue	Duration of Fatigue					
	Some of the day	Most of the day	All of the day	Refused	Don't Know	Total
A Little	73.5	26.9	24.8	0.0	33.3	61.2
Closer to a little	3.8	6.1	2.1	0.0	0.0	3.9
In between	12.2	20.4	12.4	0.0	0.0	13.3
Closer to a lot	2.4	9.8	8.8	0.0	0.0	4.2
A lot	7.9	36.3	33.7	0.0	0.0	16.6
Refused/Don't know	0.2	0.5	0.9	100	66.7	0.8
	100	100	100	100	100	100
Count	2216	427	330	2	18	2993

Relationship of Frequency of Fatigue with Duration of Fatigue

Duration of Fatigue	Frequency of Fatigue					Total
	Some days	Most days	Every day	Refused	Don't Know	
Some of the day	82.6 (n=1962)	44.0	38.5	0.0	16.7	74.0
Most of the day	10.6	33.2	22.6	0.0	0.0	14.3
All of the day	6.5	22.8	38.9	0.0	0.0	11
Refused	0.0	0.0	0.0	100	0.0	0.10
Don't Know	0.3	0.0	0.0	0.0	83.3	0.6
	100	100	100	100	100	100
Count	2376	364	239	2	12	2993

Relationship of Frequency of Fatigue to Intensity of Fatigue

Intensity of Fatigue	Frequency of Fatigue					Total
	Some days	Most days	Every day	Refused	Don't Know	
A little	69.4 (N=1643)	30.2	31.8	0.0	16.7	61.2
Closer to a little	4.1	2.7	4.2	0.0	0.0	3.9
In between	12.7	19.5	11.3	0.0	0.0	13.3
Closer to a lot	3.3	7.7	7.5	0.0	0.0	4.2
A lot	10.5	39.3	44.4	0.0	0.0	16.6
Refused/DK	0.3	0.5	0.8	100	83.3	0.8
	100	100	100	100	100	100
Count	2376	364	239	3	12	2994

Cross-frequency for fatigue frequency, duration and intensity in field test interviews

Intensity	Duration		Tired Frequency			
			Some days	Most days	Every day	Total
A little	Duration	Some of the day	1,498	79	49	1,626
		Most of the day	82	22	11	115
		All of the day	57	9	16	82
	Total		1,637	110	76	1,823
Closer to a little	Duration	Some of the day	72	7	6	85
		Most of the day	20	3	3	26
		All of the day	6	0	1	7
	Total		98	10	10	118
In between	Duration	Some of the day	223	34	13	270
		Most of the day	56	27	4	87
		All of the day	21	10	10	41
	Total		300	71	27	398
Closer to a lot	Duration	Some of the day	39	8	7	54
		Most of the day	21	14	7	42
		All of the day	19	6	4	29
	Total		79	28	18	125
A lot	Duration	Some of the day	127	32	16	175
		Most of the day	71	55	29	155
		All of the day	51	56	61	168
	Total		249	143	106	498

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Distribution of Fatigue Measure Summarizing Frequency, Duration and Intensity Based on Field Test Interviews

Summary fatigue measure	N	Percent
Low	1,895	64.0
Middle	491	16.6
High	576	19.4
Total	2,962	100.0

Summary Fatigue Measure by Activity Limitation in Field Test Interviews.

Impact on daily activities	Summary Fatigue measure		
	Low	Middle	High
Not at all	52.7	32.5	23.8
A little	45.8	57.0	43.9
A lot	1.3	9.1	29.0
Completely	0.2	1.4	3.3
Total (2,932)	1,874	486	572

Conclusions

- Introductory statement or screener question needed
- Multidimensionality of fatigue demonstrated
- Consistency of cross-national responses may be problematic
- Age differences identify fatigue with aging process
- Creation of a combination measure looked promising

Recommendation

- ▶ While the results are not as clearly evident as we would like, another set of testing, taking into account the lessons learned here, should produce a useable measure of fatigue.
 - Fatigue is an important element in understanding the nature of the factors that contribute to disability. Lack of energy or exhaustion, which can result from any number of conditions or treatments, can create problems with activities that are not otherwise captured by standard questions, such as difficulties walking, self care and so on.
 - However fatigue is a complicated process which is made up of the frequency with which it occurs, the duration and the intensity with which it is felt.
 - In addition there were widely varying responses shown across countries which may be an indication of either different cultural conceptualizations of what fatigue is, whether one can admit to such a problem or It may also reflect a translation issue.
 - It is important to keep the fatigue concept alive in the extended measurement development process, but these results need to be further analyzed to identify if the questions need to be changed or adapted to provide a more robust representation of the concept.