



MotherMalaiseQuestions.doc

Centre for Longitudinal Studies, Institute of Education

Teaching students quantitative methods using resources from the British Birth Cohorts

Measuring signs of psychological distress and depression

The Malaise Inventory

MotherMalaiseQuestions.doc: this document includes

- a) An introduction to the Malaise Inventory.
- b) A table specifying the questions asked at each age.
- c) The different answer categories used to answer the questions at each age and in each cohort.
- d) Examples of how the questions were presented to the cohort members in the questionnaires.

Introduction to the Malaise Inventory

At each occasion BCS70 cohort members were interviewed during their childhood – age 5, 10 and 16 – their mother was asked to complete *The Malaise Inventory* (Rutter, et al 1970). *The Malaise Inventory* (Rutter et al, 1970) is a set of self-completion questions which combine to measure levels of psychological distress, or depression. The 24 ‘yes-no’ items of the inventory cover emotional disturbance and associated physical symptoms. When administered in its standard format, scores range from 0 to 24. It was itself developed from the Cornell Medical Index Health Questionnaire (CMI) which comprises of 195 self-completion questions (Brodman et al, 1949, 1952). Fourteen of the 24 questions are taken directly from the CMI (Rutter et al, 1970). Individuals responding ‘yes’ to eight or more of the 24 items are considered to be at risk of depression (Rodgers et al., 1999). The internal consistency of the scale has proved to be acceptable and validity of the inventory shown to hold in different socio-economic groups (Rodgers et al., 1999). The scale has been used in both general population studies (McGee, Williams & Silva, 1986; Rutter & Madge, 1976; Rodgers et al, 1999) and in investigations of high-risk groups (Grant, Nolan & Ellis, 1990). Rutter himself affirms that ‘the inventory differentiates moderately well between individuals with and without psychiatric disorder’ (Rutter et al, 1970, p160).

Table 1 lists the 24 questions.

**Table 1: Age of BCS70 cohort members
when mothers completed Malaise questions**

	Age of data collection		
	age 5	age 10	age 16
1. Do you often have backache?	✓	✓	✓
2. Do you feel tired most of the time?	✓	✓	✓
3. Do you often feel depressed?	✓	✓	✓
4. Do you often have bad headaches?	✓	✓	✓
5. Do you often get worried about things?	✓	✓	✓
6. Do you usually have great difficulty in falling or staying asleep?	✓	✓	✓
7. Do you usually wake unnecessarily early in the morning?	✓	✓	✓
8. Do you wear yourself out worrying about your health?	✓	✓	✓
9. Do you often get into a violent rage?	✓	✓	✓
10. Do people annoy and irritate you?	✓	✓	✓
11. Have you at times had a twitching of the face, head or shoulders?	✓	✓	✓
12. Do you suddenly become scared for no good reason?	✓	✓	✓
13. Are you scared to be alone when there are not friends near you?	✓	✓	✓
14. Are you easily upset or irritated?	✓	✓	✓
15. Are you frightened of going out alone or of meeting people?	✓	✓	✓
16. Are you constantly keyed up and jittery?	✓	✓	✓
17. Do you suffer from indigestion?	✓	✓	✓
18. Do you suffer from an upset stomach?	✓	✓	✓
19. Is your appetite poor?	✓	✓	✓
20. Does every little thing get on your nerves and wear you out?	✓	✓	✓
21. Does your heart often race like mad?	✓	✓	✓
22. Do you often have bad pain in eyes?	✓	✓	✓
23. Are you troubled with rheumatism or fibrosis?	✓	✓	✓
24. Have you ever had a nervous breakdown?	✓	✓	✓

Differences in ways Malaise Questions have been asked

There are 24 'yes-no' questions that make up the Malaise Inventory (Rutter 1970). These questions were asked in the standard way in BCS70 in 1975, when cohort members were age 5, but different formats were employed in 1980 (age 10) and 1986 (age 16). Table 2 shows how answer categories have varied across the different sweeps of the study and the following pages include examples of how the questions were presented to respondents in the questionnaires.

Table 2: Variation in answer categories to Malaise Questions in BCS70 and attached score to each answer category

Year	Available answer categories		
1975 (age 5):	Yes (1)	No (0)	
1980 (age 10):	0 (most of the time)		(seldom or never)100
	*Mothers had to draw a vertical line through the printed line to show how much a question applied (or not) to them		
1986 (age 16):	most of the time (2)	some of the time (1)	rarely or never (0)

Scoring responses

Although the format of response categories changed over time, all 24 questions that make up the Malaise Inventory were asked at each time point. When questions are asked in the standard format, 1-point is awarded for every 'yes' response, 0-points for every 'no' response. An overall Malaise score for a cohort member is the sum across the individual variables, yielding a minimum score of 0 and a maximum of 24. A score of 8 or higher is considered to be a sign that the cohort member is experiencing symptoms associated with depression. However, this scoring technique could only be applied to questions asked in 1975 when cohort members were age 5. At age 10 a score between 0 and 100 was awarded for each question. Responses were reverse coded so that the higher the score,

the more applicable the respondent felt the question was for them (0=seldom or never, 100=most of the time). At age 16 a score of '0' was awarded for each 'rarely/never' response, 1-point for each 'some of the time' response and 2-points for each 'most of the time' response. The overall Malaise score-range for cohort members' mothers in 1986 therefore had a minimum of 0 and a maximum of 48.

To obtain comparable variables at each sweep of data collection, categorical ratings were calculated for each scale by dividing the overall Malaise score for a cohort member's mother at each age point into three levels of severity: "normal" scores less than the 80th percentile, "moderate" problem scores between the 80th and 95th percentile and "severe" problem scores above the 95th percentile.

In addition; the standard way of grouping Malaise scores (whereby scores of 8 or higher were considered to indicate the experience of symptoms of depression) was also derived. In 1986 the standard way of grouping Malaise scores was adapted using a 'cut-off' point of 15 (the same 'cut-off' as was used for cohort members' own Malaise score at this time (when age 16).

The SPSS syntax for constructing summary Malaise scores is included in **MotherMalaiseVariables.doc**.

The following pages include examples of questions from the original questionnaires at each age the questions were collected.

Examples of differences in question layout of Malaise questions in BCS70

1975: Cohort member age 5 (self-completion paper questionnaire)

Many mothers find caring for their children difficult if their own health is not very good. Listed below are a number of common symptoms that mothers often describe to doctors. We would like you to say if these happen to you by putting a ring round Yes or No as in the examples given.

Here are two EXAMPLES

Do your hands often tremble? Yes No

Are you worried about travelling long distances? Yes No

This means my hands do not tremble but I am worried about travelling long distances

PLEASE RING THE CORRECT ANSWER TO EACH OF THE FOLLOWING

Do you often have back ache? Yes No

Do you feel tired most of the time? Yes No

Do you often feel miserable or depressed? Yes No

Do you often have bad headaches? Yes No

1980: Cohort member age 10 (self-completion paper questionnaire)

E1. Many mothers find caring for their children difficult if their own health is not very good. Listed below are a number of common symptoms that mothers often describe to doctors. We would like you to say how often these happen to you by putting a vertical mark through the line in the appropriate place.

EXAMPLES:

Do your hands tremble? Most of the time | | Seldom or never

The line marked in this way would indicate that your hands tremble a lot of the time.

Are you worried about travelling long distances? Most of the time | | Seldom or never

The line marked in this way would indicate that you are only occasionally worried about travelling long distances.

Please make a vertical mark through the line alongside each of the following questions to indicate how often you experience each of the following symptoms:

1. Do you have back-ache? Most of the time | | Seldom or never

2. Do you feel tired? Most of the time | | Seldom or never

3. Do you feel miserable or depressed? Most of the time | | Seldom or never

4. Do you have bad headaches? Most of the time | | Seldom or never

1986: Cohort member age 16 (self-completion paper questionnaire)

D1. Many mothers find caring for their family difficult if their own health is not very good. Listed below are a number of common symptoms that mothers often describe to doctors. We would like you to say if these happen to you most of the time, some of the time, or rarely/never, as in the examples given below.

Here are two EXAMPLES.

	Most of the time	Some of the time	Rarely or never
Do your hands often tremble?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Are you worried about travelling long distances	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

This means my hands do not tremble but I am worried about travelling long distances most of the time

Please tick the correct box on each line:

	Most of the time	Some of the time	Rarely or never
Do you have backache?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Do you feel tired?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Do you feel miserable or depressed?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Do you have bad headaches?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

(PDI.1)
(PDI.2)
(PDI.3)
(PDI.4)