



## Teaching students quantitative methods using resources from the British Birth Cohorts

### Measuring signs of psychological distress and depression

#### The Malaise Inventory

**MotherMalaiseVariables.doc:** this document includes

- a) An introduction to the data and a list of all the variables in the *b016MotherMalaise.sav* SPSS data file. (The original variable name that was assigned to a question and found in the full dataset and documentation of a particular survey is also included.) In summary *b016MotherMalaise.sav* contains all individual Malaise questions put to BCS70 cohort members' mothers when the cohort member was age 5, 10 and 16, together with overall summary Malaise scores at corresponding ages.
- b) SPSS syntax for constructing summary Malaise score variables

## **BCS70 Mothers' Malaise data file: 'b016mothermalaise.sav'**

### **The data**

This longitudinal dataset includes information from the 1970 British Cohort Study (BCS70) for looking at the relationship between education, socio-economic circumstances and mental well-being in adulthood over time. The datafile contains 85 variables, representing information collected from BCS70 cohort members' mothers during the cohort members childhood, specifically between age 5 and 16 (1975 to 1986).

Table 1 contains a list of all the variables in the **b016mothermalaise.sav** dataset. In 1975 when cohort members were age 5, 12985 of their mothers answered at least one Malaise question; when they were age 10, 13557 mothers answered at least one Malaise question and in 1986 when cohort members were 16, 8774 of their mothers answered at least one Malaise question. 6792 mothers of cohort members answered at least one Malaise question on all 3 occasions. To enable the information included here to be cross referenced with the original questionnaire documentation, original variable names are included in the variable label.

This file can be merged with the **b034malaise.sav** file to look at the relationship between a mother and her child's mental well-being. It can also be merged with **b034KeyVariables.sav** which includes some additional socio-economic characteristics of the cohort members' families at the time the mothers' mental well-being was assessed.

**Table 1: Variables in 'b016mothermalaise.sav' data file**

<b><u>Name</u></b>	<b><u>Label</u></b>
<b>key</b>	unique case identifier of cohort member
<b>b5mmal</b>	bcs70 age 5: (cm mother) total Malaise score
<b>b5mmalA</b>	bcs70 age 5: (cm mother) total Malaise score – grouped based on distribution
<b>b5mmalB</b>	bcs70 age 5: (cm mother) total Malaise score - grouped in standard way
<b>b5min</b>	bcs70 age 5: cohort member mother has information on at least 1 Malaise question
<b>b10mmal</b>	bcs70 age 10: (cm mother) total Malaise score
<b>b10mmalA</b>	bcs70 age 10: (cm mother) total Malaise score – grouped based on distribution
<b>b10min</b>	bcs70 age 10: cohort member mother has information on at least 1 Malaise question
<b>b16mmal</b>	bcs70 age 16: (cm mother) total Malaise score
<b>b16mmalA</b>	bcs70 age 16: (cm mother) total Malaise score – grouped based on distribution
<b>b16mmalB</b>	bcs70 age 16: (cm mother) total Malaise score – grouped (as for cm at age 16)
<b>b16min</b>	bcs70 age 16: cohort member mother has information on at least 1 Malaise question
<b>b516min</b>	bcs70 age 5 to 16: cohort members mothers with complete Malaise information
<b>b5mmal01</b>	bcs70 age 5: (cm mother): Do you often have backache? (d044)
<b>b5mmal02</b>	bcs70 age 5: (cm mother): Do you feel tired most of the time? (d045)
<b>b5mmal03</b>	bcs70 age 5: (cm mother): Do you often feel depressed? (d046)
<b>b5mmal04</b>	bcs70 age 5: (cm mother): Do you often have bad headaches? (d047)
<b>b5mmal05</b>	bcs70 age 5: (cm mother): Do you often get worried about things? (d048)
<b>b5mmal06</b>	bcs70 age 5: (cm mother): Do you usually have great difficulty in falling or staying asleep? (d049)
<b>b5mmal07</b>	bcs70 age 5: (cm mother): Do you usually wake unnecessarily early in the morning? (d050)
<b>b5mmal08</b>	bcs70 age 5: (cm mother): Do you wear yourself out worrying about your health? (d051)
<b>b5mmal09</b>	bcs70 age 5: (cm mother): Do you often get into a violent rage? (d052)
<b>b5mmal10</b>	bcs70 age 5: (cm mother): Do people annoy and irritate you? (d053)

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<b><u>Name</u></b>	<b><u>Label</u></b>
<b>b5mmal11</b>	bcs70 age 5: (cm mother): Have you at times had a twitching of the face, head or shoulders? (d054)
<b>b5mmal12</b>	bcs70 age 5: (cm mother): Do you suddenly become scared for no good reason? (d055)
<b>b5mmal13</b>	bcs70 age 5: (cm mother): Are you scared to be alone when there are not friends near you? (d056)
<b>b5mmal14</b>	bcs70 age 5: (cm mother): Are you easily upset or irritated? (d057)
<b>b5mmal15</b>	bcs70 age 5: (cm mother): Are you frightened of going out alone or of meeting people? (d058)
<b>b5mmal16</b>	bcs70 age 5: (cm mother): Are you constantly keyed up and jittery? (d059)
<b>b5mmal17</b>	bcs70 age 5: (cm mother): Do you suffer from indigestion? (d060)
<b>b5mmal18</b>	bcs70 age 5: (cm mother): Do you suffer from an upset stomach? (d061)
<b>b5mmal19</b>	bcs70 age 5: (cm mother): Is your appetite poor? (d062)
<b>b5mmal20</b>	bcs70 age 5: (cm mother): Does every little thing get on your nerves and wear you out? (d063)
<b>b5mmal21</b>	bcs70 age 5: (cm mother): Does your heart often race like mad? (d064)
<b>b5mmal22</b>	bcs70 age 5: (cm mother): Do you often have bad pain in eyes? (d065)
<b>b5mmal23</b>	bcs70 age 5: (cm mother): Are you troubled with rheumatism or fibrosis? (d066)
<b>b5mmal24</b>	bcs70 age 5: (cm mother): Have you ever had a nervous breakdown? (d067)
<b>b10mmal01</b>	bcs70 age 10: (cm mother): Do you often have backache? (m254)
<b>b10mmal02</b>	bcs70 age 10: (cm mother): Do you feel tired most of the time? (m255)
<b>b10mmal03</b>	bcs70 age 10: (cm mother): Do you often feel depressed? (m256)
<b>b10mmal04</b>	bcs70 age 10: (cm mother): Do you often have bad headaches? (m257)
<b>b10mmal05</b>	bcs70 age 10: (cm mother): Do you often get worried about things? (m258)
<b>b10mmal06</b>	bcs70 age 10: (cm mother): Do you usually have great difficulty in falling or staying asleep? (m259)
<b>b10mmal07</b>	bcs70 age 10: (cm mother): Do you usually wake unnecessarily early in the morning? (m260)
<b>b10mmal08</b>	bcs70 age 10: (cm mother): Do you wear yourself out worrying

**Table 1: Variables in 'b016mothermalaise.sav' data file**

<b><u>Name</u></b>	<b><u>Label</u></b>
	about your health? (m261)
<b>b10mmal09</b>	bcs70 age 10: (cm mother): Do you often get into a violent rage? (m262)
<b>b10mmal10</b>	bcs70 age 10: (cm mother): Do people annoy and irritate you? (m263)
<b>b10mmal11</b>	bcs70 age 10: (cm mother): Have you at times had a twitching of the face, head or shoulders? (m264)
<b>b10mmal12</b>	bcs70 age 10: (cm mother): Do you suddenly become scared for no good reason? (m265)
<b>b10mmal13</b>	bcs70 age 10: (cm mother): Are you scared to be alone when there are not friends near you? (m266)
<b>b10mmal14</b>	bcs70 age 10: (cm mother): Are you easily upset or irritated? (m267)
<b>b10mmal15</b>	bcs70 age 10: (cm mother): Are you frightened of going out alone or of meeting people? (m268)
<b>b10mmal16</b>	bcs70 age 10: (cm mother): Are you constantly keyed up and jittery? (m269)
<b>b10mmal17</b>	bcs70 age 10: (cm mother): Do you suffer from indigestion? (m270)
<b>b10mmal18</b>	bcs70 age 10: (cm mother): Do you suffer from an upset stomach? (m271)
<b>b10mmal19</b>	bcs70 age 10: (cm mother): Is your appetite poor? (m272)
<b>b10mmal20</b>	bcs70 age 10: (cm mother): Does every little thing get on your nerves and wear you out? (m273)
<b>b10mmal21</b>	bcs70 age 10: (cm mother): Does your heart often race like mad? (m274)
<b>b10mmal22</b>	bcs70 age 10: (cm mother): Do you often have bad pain in eyes? (m275)
<b>b10mmal23</b>	bcs70 age 10: (cm mother): Are you troubled with rheumatism or fibrosis? (m276)
<b>b10mmal24</b>	bcs70 age 10: (cm mother): Have you ever had a nervous breakdown? (m278)
<b>b16mmal01</b>	bcs70 age 16: (cm mother): Do you often have backache? (pd1.1)
<b>b16mmal02</b>	bcs70 age 16: (cm mother): Do you feel tired most of the time? (pd1.2)
<b>b16mmal03</b>	bcs70 age 16: (cm mother): Do you often feel depressed? (pd1.3)
<b>b16mmal04</b>	bcs70 age 16: (cm mother): Do you often have bad headaches? (pd1.4)
<b>b16mmal05</b>	bcs70 age 16: (cm mother): Do you often get worried about things? (pd1.5)

**Table 1: Variables in 'b016mothermalaise.sav' data file**

<b><u>Name</u></b>	<b><u>Label</u></b>
<b>b16mmal06</b>	bcs70 age 16: (cm mother): Do you usually have great difficulty in falling or staying asleep? (pd1.6)
<b>b16mmal07</b>	bcs70 age 16: (cm mother): Do you usually wake unnecessarily early in the morning? (pd1.7)
<b>b16mmal08</b>	bcs70 age 16: (cm mother): Do you wear yourself out worrying about your health? (pd1.8)
<b>b16mmal09</b>	bcs70 age 16: (cm mother): Do you often get into a violent rage? (pd1.9)
<b>b16mmal10</b>	bcs70 age 16: (cm mother): Do people annoy and irritate you? (pd1.10)
<b>b16mmal11</b>	bcs70 age 16: (cm mother): Have you at times had a twitching of the face, head or shoulders? (pd1.11)
<b>b16mmal12</b>	bcs70 age 16: (cm mother): Do you suddenly become scared for no good reason? (pd1.12)
<b>b16mmal13</b>	bcs70 age 16: (cm mother): Are you scared to be alone when there are not friends near you? (pd1.13)
<b>b16mmal14</b>	bcs70 age 16: (cm mother): Are you easily upset or irritated? (pd1.14)
<b>b16mmal15</b>	bcs70 age 16: (cm mother): Are you frightened of going out alone or of meeting people? (pd1.15)
<b>b16mmal16</b>	bcs70 age 16: (cm mother): Are you constantly keyed up and jittery? (pd1.16)
<b>b16mmal17</b>	bcs70 age 16: (cm mother): Do you suffer from indigestion? (pd1.17)
<b>b16mmal18</b>	bcs70 age 16: (cm mother): Do you suffer from an upset stomach? (pd1.18)
<b>b16mmal19</b>	bcs70 age 16: (cm mother): Is your appetite poor? (pd1.19)
<b>b16mmal20</b>	bcs70 age 16: (cm mother): Does every little thing get on your nerves and wear you out? (pd1.20)
<b>b16mmal21</b>	bcs70 age 16: (cm mother): Does your heart often race like mad? (pd1.21)
<b>b16mmal22</b>	bcs70 age 16: (cm mother): Do you often have bad pain in eyes? (pd1.22)
<b>b16mmal23</b>	bcs70 age 16: (cm mother): Are you troubled with rheumatism or fibrosis? (pd1.23)
<b>b16mmal24</b>	bcs70 age 16: (cm mother): Have you ever had a nervous breakdown? (pd1.24)

## **SPSS syntax for constructing summary Malaise scores**

### **BCS70 variables**

#### **Age 5 (1975)**

```
COMPUTE b5mmal =SUM(b5mmal01,b5mmal02,b5mmal03,b5mmal04,  
b5mmal05,b5mmal06,b5mmal07,b5mmal08,b5mmal09,b5mmal10,b5mmal11,  
b5mmal12,b5mmal13,b5mmal14, b5mmal15,b5mmal16,b5mmal17,b5mmal18,  
b5mmal19,b5mmal20, b5mmal21,b5mmal22,b5mmal23,b5mmal24) .
```

\*\*the below code is included to try and include as many as possible but exclude those with enough missing values to give them a 'high' malaise score.

```
count b5miss = b5mmal01 b5mmal02 b5mmal03 b5mmal04 b5mmal05  
b5mmal06 b5mmal07 b5mmal08 b5mmal09 b5mmal10 b5mmal11 b5mmal12  
b5mmal13 b5mmal14 b5mmal15 b5mmal16 b5mmal17 b5mmal18 b5mmal19  
b5mmal20 b5mmal21 b5mmal22 b5mmal23 b5mmal24 (missing).  
compute malmiss =b5mmal + b5miss.  
if (b5miss > 0 and b5mmal <= 7 and malmiss >= 8) b5mmal = -1.  
recode b5mmal (sysmis = -2).  
missing values b5mmal (-1,-2).  
variable labels b5mmal 'bcs70 age 5: (cm mother) total Malaise score'.  
value labels b5mmal -1'incomplete info' -2'not stated any questions'
```

```
freq b5mmal.
```

Two categorical variables were derived for age 5 data. Version A is based on the distribution of the scores and is comparable with categorical variables derived at age 10 (1980) and age 16 (1986). Version B is derived in the standard form, where a score of 8+ indicated depression.

#### Version A

```
recode b5mmal (0 thru 7 = 1) (8 thru 11 = 2) (12 thru highest = 3) (-2, -1 = copy)  
into b5mmalA.  
missing values b5mmalA (-1,-2).  
variable labels b5mmalA 'bcs70 age 10: (cm mother) total Malaise score –  
grouped based on distribution'.  
value labels b5mmalA 1'0-80th centile - normal behaviour' 2'81st-95th centile -  
moderate behaviour problems' 3'95+ centile - severe behaviour problems'  
-1'incomplete info' -2'not stated any questions' .  
freq b5mmalA.
```

#### Version B

```
recode b5mmal (0 thru 7 = 1) (8 thru highest = 2) (-2,-1= copy) into b5mmalB.  
variable labels b5mmalB 'bcs70 age 5: (cm mother) total Malaise score –  
grouped in standard way'.
```

value labels b5mmalB 1'score of 0-7' 2'score of 8+' -1'incomplete info' -2'not stated any questions'.

missing values b5mmalB (-1,-2).

freq b5mmalB.

### Age 10 (1980)

Answers to the Malaise questions at age 10 were presented using a visual analogue scale. 0 = 'most of the time', 100 = 'seldom or never'. Variables were reverse coded so a high score indicated how badly a respondent felt they suffered from this symptom (0=seldom or never, 100=most of the time). Variable b10mmal25, 'have you ever had a nervous breakdown?' had two answer categories: 0=no, 1=yes.

```
COMPUTE b10mmal = SUM(b10mmal01,b10mmal02,b10mmal03,b10mmal04,
b10mmal05,b10mmal06,b10mmal07,b10mmal08,b10mmal09,b10mmal10,
b10mmal11,b10mmal12,b10mmal13,b10mmal14,b10mmal15,b10mmal16,
b10mmal17,b10mmal18,b10mmal19,b10mmal20,b10mmal21,b10mmal22,
b10mmal23,b10mmal25) .
```

```
count b10miss = b10mmal01 b10mmal02 b10mmal03 b10mmal04 b10mmal05
b10mmal06 b10mmal07 b10mmal08 b10mmal09 b10mmal10 b10mmal11
b10mmal12 b10mmal13 b10mmal14 b10mmal15 b10mmal16 b10mmal17
b10mmal18 b10mmal19 b10mmal20 b10mmal21 b10mmal22 b10mmal23
b10mmal25 (missing).
```

```
if (b10miss > 0) b10mmal = -1.
```

```
if (b10miss = 24) b10mmal = -2.
```

missing values b10mmal (-1,-2).

variable labels b10mmal 'bcs70 age 10: (cm mother) total Malaise score'.

value labels b10mmal -1'incomplete info' -2'not stated any questions' .

freq b10mmal.

```
recode b10mmal (0 thru 700 = 1) (701 thru 1029 = 2) (1030 thru highest = 3) (-2,
-1 = copy) into b10mmalA.
```

missing values b10mmalA (-1,-2).

variable labels b10mmalA 'bcs70 age 10: (cm mother) total Malaise score – grouped based on distribution'.

value labels b10mmalA 1'0-80th centile - normal behaviour' 2'81st-95th centile - moderate behaviour problems' 3'95+ centile - severe behaviour problems'

-1'incomplete info' -2'not stated any questions' .

freq b10mmalA.



### Age 16 (1986)

```
do if (b16mmal01 >= -2).
count b16mmal1 = b16mmal01 b16mmal02 b16mmal03 b16mmal04 b16mmal05
b16mmal06 b16mmal07 b16mmal08 b16mmal09 b16mmal10 b16mmal11
b16mmal12 b16mmal13 b16mmal14 b16mmal15 b16mmal16 b16mmal17
b16mmal18 b16mmal19 b16mmal20 b16mmal21 b16mmal22 b16mmal23
b16mmal24 (1) .
count b16mmal2 = b16mmal01 b16mmal02 b16mmal03 b16mmal04 b16mmal05
b16mmal06 b16mmal07 b16mmal08 b16mmal09 b16mmal10 b16mmal11
b16mmal12 b16mmal13 b16mmal14 b16mmal15 b16mmal16 b16mmal17
b16mmal18 b16mmal19 b16mmal20 b16mmal21 b16mmal22 b16mmal23
b16mmal24 (2).
compute b16mmal2 = b16mmal2 * 2.
compute b16mmal = SUM(b16mmal1,b16mmal2).
end if.
count b16miss = b16mmal01 b16mmal02 b16mmal03 b16mmal04 b16mmal05
b16mmal06 b16mmal07 b16mmal08 b16mmal09 b16mmal10 b16mmal11
b16mmal12 b16mmal13 b16mmal14 b16mmal15 b16mmal16 b16mmal17
b16mmal18 b16mmal19 b16mmal20 b16mmal21 b16mmal22 b16mmal23
b16mmal24 (-2).
count b16miss2 = b16mmal01 b16mmal02 b16mmal03 b16mmal04 b16mmal05
b16mmal06 b16mmal07 b16mmal08 b16mmal09 b16mmal10 b16mmal11
b16mmal12 b16mmal13 b16mmal14 b16mmal15 b16mmal16 b16mmal17
b16mmal18 b16mmal19 b16mmal20 b16mmal21 b16mmal22 b16mmal23
b16mmal24 (-1).
compute malmiss =b16mmal + b16miss.
if (b16miss > 0 and b16mmal <= 14 and malmiss >= 15) b16mmal = -1.
if (b16miss2 = 24) b16mmal = -2.
missing value b16mmal (-1,-2).

freq b16mmal.
```

Two categorical variables were derived for age 16 data. Version A is based on the distribution of the scores and is comparable with categorical variables derived at age 5 (1975 and at age 10 (1980). Version B is derived in the same way as for cohort members' own malaise score at age 16, where a score of 15+ indicates depression.

### Version A

```
recode b16mmal (0 thru 11 = 1) (12 thru 17 = 2) (18 thru highest = 3) (-2, -1 =
copy) into b16mmalA.
missing values b16mmalA (-1,-2).
variable labels b16mmalA 'bcs70 age 10: (cm mother) total Malaise score –
grouped based on distribution'.
value labels b16mmalA 1'0-80th centile - normal behaviour' 2'81st-95th centile -
moderate behaviour problems' 3'95+ centile - severe behaviour problems'
```

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-1'incomplete info' -2'not stated any questions'.  
freq b16mmalA.

### Version B

recode b16mmal (0 thru 14=1) (15 thru highest = 2) (-2,-1=copy) into b16mmalB.  
end if.

missing values b16mmalB (-1,-2).

variable labels b16mmalB 'bcs70 age 16: (cm mother) total Malaise score  
grouped (as for cm at age 16)'.

value labels b16mmalB 1'0-14' 2'15+' -1'incomplete info' -2'not stated any  
questions' .

freq b16mmalB.