Health in Groups: A longitudinal and cross-national study

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META DATA

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VARIABLES IN SPSS DATA-FILE

META DATA

We conducted a two-wave longitudinal survey study involving a sample of Scottish and a sample of Italians. Each wave of the survey, across both national samples, assessed exactly the same variables. In each wave, the data were collected partly via a self-completion questionnaire and partly by scanning medical databases. Below we provide details about participants and procedure for data collection in the two national samples. Note that some procedural aspects of data collection differed across the two samples.

Participants and procedure for data collection in the Scottish sample

Five General Practitioner (GP) surgeries located in both urban and rural parts of Scotland posted participation invitations to all their patients over 18 years of age, except those with learning difficulties, terminal illnesses, or conditions such as Alzheimer's disease, dementia or schizophrenia (*N* = 21,165). Interest in participating was expressed by 2508 patients, who returned the reply slip included with the invitation. These patients were sent a Wave 1 questionnaire, which was completed and returned by 1824 patients (770 males, 1054 females).

About two years later, 1803 patients who had previously completed the first questionnaire were sent, and asked to complete, a Wave 2 questionnaire. Twenty-one patients who had completed the first questionnaire were not sent a second one because they had explicitly asked not to be contacted again. This second questionnaire was completed and returned by 1407 patients (579 males and 828 females).

For both waves, a member of the research team visited the five GP surgeries and extracted specific health data for each participant from the GPs' computerized databases, shortly after the questionnaires were returned. Wave 1 data were collected between March and October 2013, while Wave 2 data were collected between February and May 2015.

Participants and procedure for data collection in the Italian sample

GPs working in five different surgeries (all based in rural areas in the province of Arezzo, Tuscany) asked patients visiting the surgeries if they wished to participate in a questionnaire. Patients were only asked to participate if they were over 18 and did not possess a terminal illnesses or a condition such as dementia or Alzheimer's disease. Eligible patients were asked to complete

the questionnaire either in the surgery waiting room or at home. Some of those who chose to complete the questionnaire in the surgery did so with the assistance of a researcher. Patients handed the completed questionnaire into their GP surgery. 2005 patients completed the questionnaire (872 males, 1130 females, 3 unknown).

About two years later, all the patients visiting the surgery who had previously completed the first questionnaire were asked to complete a Wave 2 questionnaire sent. As with the Wave 1 survey, patients completed the questionnaire either in the surgery waiting room or at home; some of those who decided to complete the questionnaire in the surgery were assisted by a researcher. Patients handed the completed questionnaire into their GP surgery. This second questionnaire was completed by 1754 patients (745 males and 1008 females, 1 unknown).

For both waves, research assistants extracted specific health data for each participant from the GPs' computerized databases, shortly after the questionnaires were returned. Wave 1 data were collected between September 2012 and April 2013, while Wave 2 data were collected between November 2014 and June 2015.

Overall participants

Because the contents of the Scottish and Italian questionnaires were identical (albeit in different languages), the Italian and Scottish data were finally combined. Overall, 3829 patients (1642 males, 2184 females, 3 unknown) participated in Wave 1 of the study. The second wave involved 3161 patients (1324 males and 1836 women).

SPSS DATAFILE

Data from the overall sample are included in an SPSS file named: **HIG Project – Longitudinal Data**. Below, we provide details about all the variables in the data file.

Variables assessed with questionnaire

Family Identification. (Four-item measure; responses to each item based on 7-point scale, ranging from "I strongly disagree" to "I strongly agree"). (Name of variables in Wave 1: **famid1T1 to famid4T1**; name of variables in Wave 2: **famid1T2 to famid4T2**).

Please specify how much you disagree of agree with each statement concerning YOU AND YOUR FAMILY. You may define family in any way you wish (e.g., immediate family or extended family, etc.).

1. I feel a bond with my family.
2. I feel similar to the other members of my family.
3. I have a sense of belonging to my family.
4. I have a lot in common with the members of my family.

Perceived Availability of Family Support. (Three-item measure; responses to each item based on 7-point scale, ranging from "I strongly disagree" to "I strongly agree"). (Name of variables in Wave 1: **Famsupport1T1 to Famsupport3T1**; name of variables in Wave 2: **famsupport1T2 to famsupport3T2**).

Please specify how much you disagree of agree with each statement concerning YOU AND YOUR FAMILY. You may define family in any way you wish (e.g., immediate family or extended family, etc.).

1. I will receive moral support from other members of my family if I need it.
2. I can count on other members of my family for help and assistance.
3. I can rely on other members of my family for advice on how to resolve problems.

Family Contact. (Three-item measure; responses to each item are given in the form of a whole number chosen by the participant). (Name of variables in Wave 1: **famcontact1T1 to famcontact3T1**; name of variables in Wave 2: **famcontact1T2 to famcontact3T2**).

Please respond to the following questions regarding YOU AND YOUR FAMILY.

1. On average, with how many <u>different members of your family</u> do you have a face-to-face conversation in a SINGLE WEEK? (*Please specify a number*) ___
2. On average, with how many <u>different members of your family</u> do you have a telephone/Internet conversation in a SINGLE WEEK? (*Please specify a number*) ___
3. On average, how many <u>family-related events</u> (for instance meals out, parties, gatherings, trips, etc.) do you attend in a SINGLE MONTH? (*Please specify a number*) ___

Community Identification. (Four-item measure; responses to each item based on 7-point scale, ranging from "I strongly disagree" to "I strongly agree"). (Name of variables in Wave 1: **comid1T1 to comid4T1**; name of variables in Wave 2: **comid1T2 to comid4T2**).

Please specify how much you disagree of agree with each statement concerning YOU AND YOUR LOCAL COMMUNITY. Local community means your neighbourhood, village, city area, or any other way you may define it.

1. I feel a bond with my local community.
2. I feel similar to the other members of my local community.
3. I have a sense of belonging to my local community.
4. I have a lot in common with the members of my local community.

Perceived Availability of Community Support. (Three-item measure; responses to each item based on 7-point scale, ranging from "I strongly disagree" to "I strongly agree"). (Name of variables in Wave 1: **comsupport1T1 to comsupport3T1**; name of variables in Wave 2: **comsupport1T2 to comsupport3T2**).

Please specify how much you disagree of agree with each statement concerning YOU AND YOUR LOCAL COMMUNITY. Local community means your neighbourhood, village, city area, or any other way you may define it.

1. I will receive moral support from other members of my local community if I need it.
2. I can count on other members of my local community for help and assistance.
3. I can rely on other members of my local community for advice on how to resolve problems.

Community Contact. (Three-item measure; responses to each item are given in the form of a whole number chosen by the participant). (Name of variables in Wave 1: **comcontact1T1 to comcontact3T1**; name of variables in Wave 2: **comcontact1T2 to comcontact3T2**).

Please respond to the following questions regarding YOU AND YOUR LOCAL COMMUNITY.

1. On average, with how many <u>different members of your local community</u> do you have a face-to-face conversation in a SINGLE WEEK? (*Please specify a number*) ___
2. On average, with how many <u>different members of your local community</u> do you have a telephone/Internet conversation in a SINGLE WEEK? (*Please specify a number*) ___
3. On average, how many <u>local community-related events</u> (for instance parties, gatherings, trips, fundraising events, etc.) do you attend in a SINGLE YEAR? (*Please specify a number*) ___

Chosen Group. (A question asking to select a social group to which the participants belongs, out of a list of group categories. The list of groups and the way they were coded is provided below). (Name of variable in wave 1: **owngroupT1**; name of variable in wave 2: **owngroupT2**).

1. Sport team/class/club
2. Hobby/interest group
3. Support group
4. Voluntary/charity group
5. Workplace group
6. Reading/study group
7. Group of friends
8. Religious group/institution
9. Other. *Please specify:* ……..

People not indicating a social group were given the score of 10, meaning that they did not belong to any social group.

Concerning people choosing “other”, the group category specified by the participant him/herself is reported in a variable called either **otherT1** (for wave 1) or **otherT2** (for wave 2).

Chosen Group Identification. (Four-item measure; responses to each item based on 7-point scale, ranging from "I strongly disagree" to "I strongly agree"). (Name of variables in Wave 1: **ownid1T1 to ownid4T1**; name of variables in Wave 2: **ownid1T2 to ownid4T2**).

Please specify how much you disagree of agree with each statement concerning YOU AND YOUR CHOSEN GROUP.

1. I feel a bond with my chosen group.
2. I feel similar to the other members of my chosen group.
3. I have a sense of belonging to my chosen group.
4. I have a lot in common with the members of my chosen group.

Perceived Availability of Chosen Group Support. (Three-item measure; responses to each item based on 7-point scale, ranging from "I strongly disagree" to "I strongly agree"). (Name of variables in Wave 1: **ownsupport1T1 to ownsupport3T1**; name of variables in Wave 2: **ownsupport1T2 to ownsupport3T2**).

Please specify how much you disagree of agree with each statement concerning YOU AND YOUR CHOSEN GROUP.

1. I will receive moral support from other members of my chosen group if I need it.
2. I can count on other members of my chosen group for help and assistance.
3. I can rely on other members of my chosen group for advice on how to resolve problems.

Chosen Group Contact. (Three-item measure; responses to each item are given in the form of a whole number chosen by the participant). (Name of variables in Wave 1: **owncontact1T1 to owncontact3T1**; name of variables in Wave 2: **owncontact1T2 to owncontact3T2**).

Please respond to the following questions regarding YOU AND YOUR CHOSEN GROUP.

1. On average, with how many <u>different members of your chosen group</u> do you have a face-to-face conversation in a SINGLE WEEK? (*Please specify a number*) ___
2. On average, with how many <u>different members of your chosen group</u> do you have a telephone/Internet conversation in a SINGLE WEEK? (*Please specify a number*) ___
3. On average, how many <u>events related to your chosen group</u> (for instance parties, gatherings, trips, etc.) do you attend in a SINGLE YEAR? (*Please specify a number*) ___

Satisfaction with Life. (Five-item measure; responses to each item based on 7-point scale, ranging from "I strongly disagree" to "I strongly agree"; see the section on references below for reference about this measure). (Name of variables in Wave 1: **swl1T1 to SWL5T1**; name of variables in Wave 2: **swl1T2 to SWL5T2**).

Please specify how much you agree or disagree with each statement:

1. In most ways my life is close to ideal.
2. The conditions of my life are excellent.
3. I am satisfied with my life.
4. So far I have gotten the important things I want in life.
5. If I could live my life over, I would change almost nothing.

Depression. (12-item measure; responses to each item based on 6-point scale, ranging from "at no time" to "all of the time"). (Name of variables in Wave 1: **mdi1T1 to mdi12T1**; name of variables in Wave 2: **mdi1T2 to mdi12T2**; note that the prefix 'mdi' stands for 'major depression inventory', which is the name of this specific measure of depression; see the section on references below for reference about this measure).

Below is a list of ways you might have felt or behaved in the past two weeks. Please specify how often you have felt or behaved this way during the past two weeks.

1. Felt low in spirit or sad.
2. Lost interest in your daily activities.
3. Felt lacking in energy and strength.
4. Felt less confident.
5. Had a bad conscience or feelings of guilt.
6. Felt that life wasn't worth living.
7. Had difficulty in concentrating. (e.g. when reading the newspaper or watching tv).
8. Felt very restless.
9. Felt subdued or slowed down.
10. Had trouble sleeping at night.
11. Suffered from reduced appetite.
12. Suffered from increased appetite.

Note that severity of depressive symptoms is calculated by summing scores on individual items (below we provide details about the various variables derived from these items). However, for the calculation of the overall score on this measure, only the highest score for items 8 and 9, and the highest score for items 11 and 12, are used. Therefore, to facilitate the task of calculating the overall score, two additional variables for each wave are included in the datafile, i.e. **highest_8_9T1** and **highest_11_12T1** (for wave 1), and **highest_8_9T2** and **highest_11_12T2** (for wave 2).

Health behaviours. (Four questions respectively asking to specify the participant's number of: i) units of alcohol consumed in an average week; ii) cigarettes/pipes smoked in an average day; iii) portions of fruit and vegetable eaten in an average day; iv) days of physical exercise in an average week). (Name of variables for wave 1: **alcoholT1**, **cigarettesT1**, **fruitT1**, **exerciseT1**; name of variables for wave 2: **alcoholT2**, **cigarettesT2**, **fruitT2**, **exercise T2**).

Occupation. (Two questions asking to specify either the participant's current occupation, if employed, or the participant's past occupation, if retired). (From these two questions, three variables for each wave are derived: **employ_statusT1** for wave 1 and **employ_statusT2** for wave 2, concerning whether or not the participant is employed; **employ_jobT1** for wave 1 and **employ_jobT2** for wave 2, concerning the participant's job is employed; **retired_jobT1** for wave 1 and **retired_jobT2** for wave 2, concerning the participant's job before retirement).

Education. (Question asking the participant to specify his/her level of education by selecting one of seven possible categories. The list of categories and the way they were coded is provided below). (Name of variable was **educationT1** for wave 1 and **educationT2** for wave 2).

1. Less than high school
2. High school
3. College diploma
4. University degree
5. Master degree
6. PhD/Doctorate
7. Professional qualification

Subjective socio-economic status. The participant was presented with the image of a ten-rung ladder and was asked to indicate the rung where he/she believed to stand, relative to other people

in his/her country, in terms of money, education, and occupation. Participants were given a value from 1-10 (top rung = 10). See the section on references below for reference about this measure. (The name of this variable is **ladderT1** for wave 1 and **ladderT2** for wave 2).

Gender. (Question asking the participant whether he/she is male or female). (In this case there is only variable, called **gender**, because no changes were observed from wave 1 to wave 2).

Marital status. (Question asking the participant to specify his/her marital status by selecting one from seven possible categories. The list of categories and the way they were coded is provided below). (Name of variable: **maritalT1** for wave 1 and **maritalT2** for wave 2).

1. Single
2. Married
3. In a relationship
4. Separated
5. Divorced
6. Widowed

Surgery. (Scottish participants specified their own doctor's surgery. The list of surgeries and the way they were coded is provided below). (Name of variable: **surgeryT1** for wave 1 and **surgeryT2** for wave 2).

1. St. Serf's Medical Practice
2. Craigmillar Medical Group
3. Townhead
4. Castlegait
5. Annat Bank

Because the Italian participants all pertain to the same surgery, they were not asked this question. On this variable, they have all been assigned the value of 6.

Date. (Date in which the questionnaire was completed). (Name of variable: **dateT1** for wave 1 and **dateT2** for wave 2).

Variables assessed via extraction of health data from GPs' computerized databases

Prescriptions for contraception. Whether or not the participant had been prescribed contraception (of any kind) in the six months prior to the day of medical data collection. (Name of variable: **contraT1** for wave 1 and **contraT2** for wave 2).

0. No
1. Yes

Appointments with GP. Number of appointments with GP (either face-to-face and/or over the telephone) in the six months prior to the day of medical data collection. This does not include appointments when they are purely to request/receive contraception (of any kind). However, if that appointment also involves discussion of non-contraception-related medical issues, this is included in the count. (Name of variable: **appointments_drT1** for wave 1 and **appointments_drT2** for wave 2).

Appointments with nurse. Number of appointments with a nurse (either face-to-face and/or over the telephone) in the six months prior to the day of medical data collection. This does not include appointments when they are purely to request/receive contraception (of any kind). However, if that appointment also involves discussion of non-contraception-related medical issues, this is included in the count. (Name of variable: **appointments_drT1** for wave 1 and **appointments_drT2** for wave 2). (Name of variable: **appointment_nurseT1** for wave 1 and **appointment_nurseT2** for wave 2).

Prescriptions. Number of prescriptions in the six months prior to the day of medical data collection. This does not include prescriptions for contraception. (Name of variable: **prescript_allT1** for wave 1 and **prescript_allT2** for wave 2). (If a drug is prescribed in one form (e.g., as pessaries) and is later prescribed to the same person in a different form (e.g., as a cream), this is counted as different prescriptions. Example: Person X received one prescription for Clotrimazole 500mg pessaries and one prescription for Clotrimazole 1% cream. This would count as two prescriptions)

Prescribed Drugs. Number of prescribed items of drug (including those which are not actually medicines such as insulin syringes, support tights, emollient shower gel, etc.) in the six months prior to the day of medical data collection. This does not include contraception items. (Name of variable: **drugs_allT1** for wave 1 and **drugs_allT2** for wave 2). (If a drug is prescribed in one form (e.g., as

pessaries) and is later prescribed to the same person in a different form (e.g., as a cream), it is still counted as one drug. Example: Person X received one prescription for Clotrimazole 500mg pessaries and one prescription for Clotrimazole 1% cream. This would count as one drug).

Prescriptions for Psychotropic Drugs and Antidepressants. Number of prescriptions for a psychotropic drug and/or an Antidepressant in the six months prior to the day of medical data collection. Drugs included are drugs used in psychoses and related disorders (section 4.2 of the BNF, which includes Antipsychotic drugs; Antipsychotic depot injection; Antimanic drugs), and Antidepressant drugs (section 4.3 of the BNF, which includes Tricyclic and related antidepressant drugs; Monoamine-oxidase inhibitors; Selective serotonin re-uptake inhibitors; Other antidepressant drugs). Hypnotics and anxiolytics (section 4.1 of the BNF) or CNS stimulants and drugs used for attention deficit hyperactivity disorder (section 4.4 for the BNF), or any other sub-section of drugs, are not included. (Name of variable: **prescript_anti_ psychoT1** for wave 1 and **prescript_anti_ psychoT2** for wave 2).

Prescribed Psychotropic Drugs and Antidepressants. Number of prescribed items of psychotropic drug and/or Antidepressant (see above for drugs included) in the six months prior to the day of medical data collection. (Name of variable: **drugs_anti_psychoT1** for wave 1 and **drugs_anti_psychoT2** for wave 2).

Prescriptions for Antidepressants. Number of prescriptions for an antidepressant in the six months prior to the day of medical data collection. Drugs included are those in section 4.3 of the BNF, which includes Tricyclic and related antidepressant drugs; Monoamine-oxidase inhibitors; Selective serotonin re-uptake inhibitors; Other antidepressant drugs). (Name of variable: **prescript_antiT1** for wave 1 and **prescript_antiT2** for wave 2). Data on this variable for the Italian sample are not available.

Prescribed Antidepressants. Number of prescribed items of Antidepressants (see above for drugs included) in the six months prior to the day of medical data collection. (Name of variable: **drugs_antiT1** for wave 1 and **drugs_antiT2** for wave 2). Data on this variable for the Italian sample are not available.

Prescriptions for Psychotropic Drugs. Number of prescriptions for a psychotropic drug in the six months prior to the day of medical data collection. Drugs included are drugs used in psychoses

and related disorders (section 4.2 of the BNF, which includes Antipsychotic drugs; Antipsychotic depot injection; Antimanic drugs). (Name of variable: **prescript_psychoT1** for wave 1 and **prescript_ psychoT2** for wave 2).

Prescribed Psychotropic Drugs. Number of prescribed items of psychotropic drug (see above for drugs included) in the six months prior to the day of medical data collection. (Name of variable: **drugs_psychoT1** for wave 1 and **drugs_psychoT2** for wave 2).

Prescriptions for Analgesics. Number of prescriptions for analgesic drugs in the six months prior to the day of medical data collection. Analgesics included are those in the British National Formulary (BNF), section 4.7, which covers: Non-opiod analgesics and compound analgesic preparations; Opioid analgesics; Neuropathic pain; Antimigraine drugs; Treatment of acute migraine; Prophylaxis of migraine; Cluster headache and the trigeminal autonomic cephalalgias). (Name of variable: **prescript_analgT1** for wave 1 and **prescript_ analgT2** for wave 2).

Prescribed Analgesics. Number of prescribed items of analgesic drug (see above for analgesics included) in the six months prior to the day of medical data collection. (Name of variable: **drugs_analgT1** for wave 1 and **drugs_analgT2** for wave 2).

Date of measurement of blood pressure. (Name of variable: **bp_dateT1** for wave 1 and **bp_dateT2** for wave 2). For participants with no blood pressure measurement this variable will be blank.

Systolic Blood Pressure. Systolic blood pressure as resulting from most recent measurement. (Name of variable: **bp_systolicT1** for wave 1 and **bp_systolicT2** for wave 2). For participants with no systolic blood pressure measurement this variable will be blank.

Diastolic Blood Pressure. Diastolic blood pressure as resulting from most recent measurement. (Name of variable: **bp_diastolicT1** for wave 1 and **bp_diastolicT2** for wave 2). For participants with no diastolic blood pressure measurement this variable will be blank.

Date of measurement of Body Mass Index (BMI). (Name of variable: **bmi_dateT1** for wave 1 and **bmi_dateT2** for wave 2). For participants with no BMI measurement this variable will be blank.

Body Mass Index. Body Mass Index (BMI) as resulting from most recent measurement. (Name of variable: **bmiT1** for wave 1 and **bmiT2** for wave 2). For participants with no BMI measurement this variable will be blank.

Date of measurement of cholesterol. (Name of variable: **chol_dateT1** for wave 1 and **chol_dateT2** for wave 2). For participants with no cholesterol measurement this variable will be blank.

Cholesterol. Cholesterol as resulting from most recent measurement. (Name of variable: **cholT1** for wave 1 and **cholT2** for wave 2). For participants with no cholesterol measurement this variable will be blank.

Date of measurement of weight. (Name of variable: **weight_dateT1** for wave 1 and **weight_dateT2** for wave 2). For participants with no weight measurement this variable will be blank.

Weight. Weight in kilograms as resulting from most recent measurement. (Name of variable: **weight_kgT1** for wave 1 and **weight_kgT2** for wave 2). For participants with no weight measurement this variable will be blank.

Date of medical data retrieval. (Name of variable: **date_collectedT1** for wave 1 and **date_collectedT2** for wave 2).

Days passed since measurement of blood pressure. (Name of variable: **DAYS_SINCE_BPT1** for wave 1 and **DAYS_SINCE_BPT2** for wave 2).

Days passed since measurement of body mass index (BMI). (Name of variable: **DAYS_SINCE_BMIT1** for wave 1 and **DAYS_SINCE_BMIT2** for wave 2).

Days passed since measurement of cholesterol. (Name of variable: **DAYS_SINCE_CHOLT1** for wave 1 and **DAYS_SINCE_CHOLT2** for wave 2).

Whether participant completed the wave 2 questionnaire. (Name of variable: **repliedT2**).

0 = No

1 = Yes

(Note: This is a very important variable in terms of conducting longitudinal data analysis. By selecting only participants who completed wave 2 (i.e., scoring 1 on this variable), the researcher can conduct analyses including only those participants who took part in both waves of the study).

REFERENCES FOR QUESTIONNAIRE MEASURES

Depression:

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Group (e.g., family) Identification:

Sani F, Madhok V, Norbury M, Dugard P, Wakefield, JRH (2014). Higher identification with social groups is associated with healthier behavior: Evidence from a Scottish community sample. *Brit J Health Psych*. doi: 10.1111/bjhp.12119.

Subjective socio-economic status:

Adler, N. E., Epel, E. S., Castellazzo, G., & Ickovics, J. R. (2000). Relationship of subjective and objective social status with psychological and physiological functioning: Preliminary data in healthy white women. *Health Psychology, 19*, 586-592. doi: 10.1037//0278-6133.19.6.586.