

The Impact of Support Group Membership on Social Support, Psychological Morbidity and Quality of Life in Patients with Cardiac Syndrome X

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Registration date 28/09/2007	Overall study status Completed	☐ Statistical analysis plan ☒ Results
Last Edited 18/01/2012	Condition category Circulatory System	☐ Individual participant data

Plain English summary of protocol
Not provided at time of registration

Contact information

Type(s)
Scientific

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Additional identifiers

Protocol serial number
N0201188118

Study information

Scientific Title

Study objectives

The Impact of Support Group Membership on Social Support, Psychological Morbidity and Quality of Life in Patients with Cardiac Syndrome X.

Ethics approval required

Old ethics approval format

Ethics approval(s)

Not provided at time of registration

Primary study design

Interventional

Study design

Randomised controlled trial

Study type(s)

Quality of life

Health condition(s) or problem(s) studied

Cardiovascular: Cardiac syndrome X

Interventions

The study is designed as a randomised case-control trial. Patients will be randomly assigned to 12 monthly support group meetings or usual care control. Usual care is defined as continuing to attend all normal GP, consultant or clinic appointments without additional study intervention. All potential participants (see Subjects below) will receive a letter briefly outlining the study along with how and why they have been contacted to participate. All patients will also be sent an information sheet containing a detailed description of the study, a brief questionnaire confirming eligibility and a freepost envelope. Participants will be requested to complete the questionnaire and return it in the enclosed freepost envelope if they are interested in taking part.

Once a potential participant has expressed an interest in taking part in the study and their eligibility is confirmed, patients will attend a study visit. All study visits will take place in a quiet, private room on a one-to-one basis, where the project will be fully explained and any questions answered. All aspects of the support group will be described in detail, including the considerable commitment required to participate in such a program. The nature of the usual care arm of the study will also be fully explained. Patients will be advised that their GP will be informed of their participation in the trial at their request. All participants will give written informed consent using the consent form approved by the Royal Brompton & Harefield NHS Trust Ethics Committee.

Following consent, patients will be randomly assigned to either 12 monthly support group meetings or usual care control for the same 12 month period. Randomisation will be performed using identical opaque brown sealed envelopes containing an equal number of paper strips

marked Support Group or Usual Care. The envelopes will be shuffled in front of the patient, who will then be asked to pick one from the pile. The patient will open the envelope themselves to discover their group assignment.

Following randomisation, all participants will be guided through and asked to complete a study questionnaire (see Questionnaire section below), exploring their current quality of life, anxiety, depression, social support and social contact, along with health recourse utilisation over the previous two years. All participants will be requested to complete the same questionnaire after six and twelve months of support group participation or usual care. Support group participants will receive the additional questionnaires during the group meeting to complete at home and return in a 'freepost' envelope provided. Usual care control group members will receive and return the six and twelve month questionnaires by post using the 'freepost' envelope provided.

The support group will consist of 12 monthly group meetings. The groups will be comprised of no more than 20 patients, in order to provide a supportive environment small enough to encourage full interaction, in line with current support group recommendations (1). Groups will be held at both the Royal Brompton and Harefield sites in order to reflect the geographical location of the majority of our patient population. Groups will run for approximately 90 minutes at a time and day most suitable to the majority of the participants.

At the first group meeting, the support group goals, aims and ethic will be explained in detail, allowing plenty of time for input from the group. The monthly meetings will be designed to reflect the needs of the participants involved. Participants will be asked to indicate what they hope to get out of the support group, what topics they would like to learn more about, or what activities they would like to undertake, thus empowering the participants with a sense of group ownership and responsibility. It is envisaged that guest speakers will address the group on associated topics every other month, with the interim meetings providing an opportunity for discussion, reflection and support. Presentations from guest speakers will include:

1. An overview of Syndrome X given by Prof Peter Collins, a recognised expert in the field
2. The importance of physical activity and exercise, given by a Harefield Hospital physiotherapist experienced in exercising patients with Syndrome X
3. Learning to relax to avoid pain, given by Dr Nasim Kanji, a practitioner of Autogenic Training
4. Ask an expert forum with Dr John Stevenson, a gynaecologist and authority in hormone replacement therapy and Syndrome X
5. Other guest speaker and topics for discussion will be motivated by the participants interests.

Support group ethic. In order to promote an atmosphere of tolerance, understanding and mutual respect, in line with other long-established support groups (The Wellington ME / Chronic Fatigue Syndrome Support Group, Wellington, New Zealand), the following ethic will be applied to the Syndrome X group:

1. Confidentiality - whatever is said in the meeting room stays in the room
2. Respect other peoples views and beliefs - remember everyone is different what works for one person may or may not necessarily work for another.
3. One person speaks at a time - common courtesy and politeness
4. Participants can reveal as much or as little as they feel comfortable with
5. A question and answer session will always follow any presentation by a guest speaker If the participant has any complaints or suggestions about the way the meeting or group is run, they should contact the group leader (EA)
6. If the participant wants to suggest a guest speaker or specific topic, they should talk to the group leader (EA)

This ethic will be introduced to the participants during the first meeting and reinforced throughout the duration of the support group.

Syndrome X patients with chest pain, a positive exercise ECG stress-test for myocardial ischaemia and angiographically smooth coronary arteries who have expressed an interest in participating in any previous research study will be invited to participate in the study. This number totals approximately 200 patients, all of whom will be approached to participate by post. Further Syndrome X patients will be approached from the Womens Heart Clinic at the Royal Brompton & Harefield NHS Trust (London, United Kingdom). The Womens Heart Clinic is a specialised clinic for Syndrome X patients run by Prof. Peter Collins. All patients with Syndrome X will be invited to participate in the study, regardless of gender or additional illness.

The Health Anxiety Questionnaire (2) (HAQ) has been developed using the cognitive behavioural model of anxiety (3), which divides health anxiety into two parts: development and maintenance. The HAQ is split into four sub-scales that focus on: health worry preoccupation; fear of illness and death; reassurance seeking behaviour and interference with life. Developed and validated in medical, psychiatric and healthy volunteers (2), the 22 questions have a four-point Likert scale response format.

The Hospital Anxiety and Depression Scale (4) (HADS) measures clinically significant anxiety and depression in general medical patients. The 14-item questionnaire is split into two sub-scales (anxiety and depression) using a four-point Likert scales response format. Anxiety and depression scales have also been combined to create a total score (5). The scale has been validated with both outpatients and inpatients (6), along with NCCP patients (7).

The SF-36 (8) is a general health questionnaire divided into different aspects of quality of life: physical role limitation, emotional role limitation, physical functioning, pain, general health and energy. The SF-36 is a commonly used tool in quality of life research and has previously been used with Cardiac Syndrome X patients (9).

A demographic information scale (10) will be used to assess social interaction by recording the patients living circumstances, frequency of contact with friends and relatives and size of social network. This measure investigates the frequency contact with adults, both outside and within the normal household, differentiating between friends and family along with identifying any specific confidant. The four reported levels represent the following frequencies of social contact: 1) every day; 2) three times per week; 3) once a week; or 4) once a month.

The ENRICH Social Support Instrument (ESSI) (11) was developed for use with post acute MI patients. The seven item scale assesses four key attributes of social support: emotional, instrumental, informational and appraisal. The ESSI has also been validated among cardiac patients undergoing angioplasty (12).

The York Angina Beliefs (13) is designed to uncover the patients beliefs and possible misconceptions regarding chest pain symptoms and dyspnoea. Inaccurate health beliefs can drastically influence behaviour, leading in inactivity and reinforced illness perceptions. The York Angina Beliefs Scale has been designed for use in both the clinical and research environment.

Participants will also be asked about any known family history of CHD, their current medications, hospitalisations and clinical consults relating to Syndrome X over the past two years, along with their current level of physical activity.

The data will be analysed using one-way ANOVA, paired and independent Students t-tests, Pearsons Correlation and ANCOVA to determine between group effects while controlling for baseline variation; overall comparisons of categorical data will be performed using Chi-square

test. Statistical significance level is set at $p < 0.05$. In order to ensure a minimum 80% power, data from a previous large-scale cross-sectional study (14) has been employed to establish the necessary sample size using the standard calculation and normogram (15). The following assumptions were made for all the power calculations: 5% significance level, 80% power to detect a difference between groups, randomisation to the two groups in equal proportions. From the previous data (14) using these parameters, it has been calculated that a total sample size of 60 (30 patients in each group) would determine the impact of support group participation on psychological morbidity, health beliefs, quality of life and health resource utilisation in patients with Cardiac Syndrome X.

Reference List:

1. Nottingham: The Self Help Team. Starting off: information and ideas for new self help groups. Revised ed. 1994.
2. Lucock MP, Morley S. The Health Anxiety Questionnaire. *British Journal of Health Psychology* 1996; 1:137-150.
3. Beck AT, Emery G, Greenberg R. *Anxiety Disorders and Phobias: A Cognitive Perspective*. New York : Basic Books, 2001.
4. Zigmond AS, Snaith RP. The hospital anxiety and depression scale . *Acta Psychiatr Scand* 1983; 67(6):361-370.
5. Biggs AM, Aziz Q, Tomenson B, Creed F. Effect of childhood adversity on health related quality of life in patients with upper abdominal or chest pain. *Gut* 2004; 53(2):180-186.
6. Johnston M, Pollard B, Hennessey P. Construct validation of the hospital anxiety and depression scale with clinical populations. *J Psychosom Res* 2000; 48(6):579-584.
7. Kuijpers PM, Denollet J, Lousberg R, Wellens HJ, Crijns H, Honig A. Validity of the hospital anxiety and depression scale for use with patients with noncardiac chest pain. *Psychosomatics* 2003; 44(4):329-335.
8. Stewart AL, Hays RD, Ware JE, Jr. The MOS short-form general health survey. Reliability and validity in a patient population. *Med Care* 1988; 26(7):724-735.
9. Adamson DL, Webb CM, Collins P. Esterified estrogens combined with methyltestosterone improve emotional well-being in postmenopausal women with chest pain and normal coronary angiograms. *Menopause* 2001; 8(4):233-238.
10. Brown GW, Harris TO. *Social Origins of Depression*. London: Tavistock, 1978.
11. Enhancing recovery in coronary heart disease patients (ENRICHD): study design and methods. The ENRICHD investigators. *Am Heart J* 2000; 139(1 Pt 1):1-9.
12. Vaglio J, Jr., Conard M, Poston WS, O'Keefe J, Haddock CK, House J et al. Testing the performance of the ENRICHD Social Support Instrument in cardiac patients. *Health Qual Life Outcomes* 2004; 2(1):24.
13. Furze G, Bull P, Lewin RJ, Thompson DR . Development of the York Angina Beliefs Questionnaire. *J Health Psychol* 2003; 8(3):307-315.
14. Asbury EA, Creed F, Collins P. Distinct psychosocial differences between women with coronary heart disease and cardiac syndrome X. *Eur Heart J* 2004; 25 (19):1695-1701.
15. Altman D. *Practical Statistics for Medical Research*. London: Chapman and Hall, 1991.

Intervention Type

Other

Phase

Not Specified

Primary outcome(s)

Measures of psychological well being: quality of life, anxiety, depression, health anxiety, social support and health beliefs

Key secondary outcome(s)

Health resource utilisation (GP visits, hospital outpatient and inpatient care, medication use)

Completion date

31/01/2008

Eligibility

Key inclusion criteria

All patients must fulfill the exact criteria for Cardiac Syndrome X:

1. The triad of angina pectoris
2. A positive exercise ECG for myocardial ischaemia
3. Angiographically smooth coronary arteries.

In order to be as inclusive as possible and to involve a typically representative sample of patients with Syndrome X, patients will be invited to participate regardless of gender, concurrent illness, symptom severity or frequency.

Participant type(s)

Patient

Healthy volunteers allowed

No

Age group

Not Specified

Sex

Not Specified

Key exclusion criteria

1. The inability to commit to participating in the support group on the designated day or for fewer than 6 sessions
2. The inability to complete the study questionnaires, therefore a poor understanding of written English
3. Ongoing uncontrolled psychiatric illness (disruption, domination or non-participation within the group)
4. Unwillingness or inability to give written informed consent
5. Participation in a concurrent research study

Date of first enrolment

31/10/2006

Date of final enrolment

31/01/2008

Locations

Countries of recruitment

United Kingdom

England

Study participating centre

Imperial College School of Medicine NHLI

London

United Kingdom

SW3 6LY

Sponsor information

Organisation

Record Provided by the NHSTCT Register - 2007 Update - Department of Health

Funder(s)

Funder type

Government

Funder Name

Royal Brompton and Harefield NHS Trust

Funder Name

No External Funding

Funder Name

NHS R&D Support Funding

Results and Publications

Individual participant data (IPD) sharing plan

IPD sharing plan summary

Not provided at time of registration

Study outputs

Output type	Details	Date created	Date added	Peer reviewed?	Patient-facing?
Results article	results	01/02/2011		Yes	No