SECONDARY PREVENTION OF DEPRESSION IN PRIMARY CARE

Sara González González, Conception Fernández Rodríguez, Jorge Pérez Rodríguez and Isaac Amigo
University of Oviedo

In order to analyze the efficacy, effectiveness and efficiency of several programmes for the secondary prevention of depression, three group interventions were developed in Primary Care Centres: cognitive-behavioural therapy, promotion of coping resources therapy (simply paying attention to abilities, without training) and social support. The sample was made up of 60 people with mild-to-moderate depressive symptoms, randomly assigned either to one of the treatments or to a control group (waiting list). The psychopathology, quality of life and attendance at mental health services variables were assessed at pretest, post-test and two follow-up assessments, 6 and 12 months after completion of the programmes. Outcomes: both therapies showed more efficacy, effectiveness and efficiency than social support, which in turn yielded a better outcome than waiting list.

Depression is one of the health problems giving most cause for concern in Western society. The commonest psychopathological symptoms are depressive ones. Likewise, depressive disorders are the third most common psychopathology, with a life prevalence of between 2% and 25%, both in the United States and in Spain (Ayuso-Mateos et al., 2001; Kaplan & Sadock, 1999). These problems produce an enormous strain on primary care centres and mental health centres in Spain. Between 15 and 40% of primary care centre patients present psychological disorders, and 25% of them have depression (Bernardo, 2000).

Depressive disorders commonly involve relapses, chronification and serious repercussions, including suicide. Between 40 and 85% of people with major depression experience at least one relapse in their lives. Of those who commit suicide, between 50% and 70% have a medical history that includes some depressive disorder (Coon & Thompson, 2003; González, Ramos, Caballero & Wagner, 2003; Emslie, Mayes, Laptook & Batt, 2003; Merrill, Tolbert & Wade, 2003).

Although there are a wide range of theories for explaining depression, it is assumed here that this psychopathology derives largely from people’s lack of strategies (or the inadequacy of those strategies) for coping with life problems. The proliferation of psychotherapeutic approaches for treating depression is overwhelming, but not all of them are sufficiently supported by scientific studies. After an exhaustive review it can be concluded that the psychotherapies that have best proven their efficacy for depression are behaviour therapy, cognitive therapy and interpersonal therapy, and that the group format is as efficacious or more so than the individual one, but more effective and efficient. With regard to social support groups it cannot be concluded whether they equal or inferior to previous psychotherapies (Jacobson & Hollon, 1996; Labrador, Echeburúa & Becoña, 2000; Pérez & García, 2003; Shapiro, Barkham, Rees, Hardy, Reynolds & Startup, 1994; Task Force on Promotion and Dissemination of Psychological Procedures, 1995).

On the other hand, the specific therapeutic elements of the treatments is an issue that has not been definitively resolved insofar as the variables they address do not
appear to change more specifically than others not initially addressed. It would appear preferable to select interventions not so much according to the deficits or problems participants present, but rather according to the potentialities and resources they already possess (Vallejo, 1998). In sum, there seems to be a need for further research with a view to identifying which variables of the person, the context and the treatments can show a predictive value of the efficacy of treatments.

The presence of preventive programmes is scarce in primary care. Nevertheless, the majority of public health services in Western countries have assumed as the principal axis of their work the community mental health model, one of whose central pillars is prevention. Studies on the secondary prevention of depression report positive results with adolescents (Beardslee, Gladstone, Wright & Cooper, 2003; Kataoka et al., 2003), with women, especially post-partum and menopausal (Howard, Hoffbrand, Henshaw, Boath & Bradley, 2003) and with the elderly (Cohen, 2002). The interventions are similar to those used in “curative” treatments, and mostly cognitive-behavioural, so that what functions for recovering from depression appears to function to the same extent for preventing its worsening and relapses (Benedito, Carrió, del Valle & Domingo, 2005). Nevertheless, the norm, at least in Spain, in dealing with minor depression is a brief primary care consultation and the prescription of antidepressants.

The objective of the present research was to analyze the efficacy, effectiveness and efficiency of the three interventions applied in group format by a psychologist at Primary Care Centres: (a) cognitive-behavioural therapy (CBT); (b) promotion of personal resources (PPR), and (c) social support (SS). These interventions were compared with one another and with a control group on waiting list (WL) with regard to prevention of exacerbation, relapses and attendance at mental health centres specializing in people with moderate depressive symptoms. The choice of CBT and SS is backed up by the utility that these procedures have shown in the scientific literature; also, their application was in line with the specifications characterizing such interventions for the treatment of depressive behaviour. The PPR intervention was applied in view of our interest in studying separately the promotion of skills already acquired by the participant and the instruction and training of new skills. Thus, it was designed to provide selective attention to the participant’s coping resources without instructing and/or training new skills in a specific way.

**METHOD**

**Participants**

The sample was made up of 60 users of Primary Care Centres in the municipal districts of Oviedo and Aller (Asturias, Spain). Inclusion criteria were: (a) age between 25 and 55 years; (b) sustained presence of symptoms on the depressive spectrum to a moderate and unusual degree for the person; (c) motivation for change expressed by the participant and informed consent (for the GP and for the psychologist). Exclusion criteria were: (a) receiving specialized mental health treatment or presenting criteria for immediate referral to the Mental Health Centre; (b) meeting all the criteria of a depressive diagnosis on the DSM-IV; and (c) presenting a significant alteration in socio-employment functioning.

Experimental participants were first pre-selected by the GP in their normal surgeries at the Health Centre over a period of three months, and then selected by a clinical psychologist in individual interviews at the same centre. Thus, of the 80 people pre-selected by doctors according to the criteria presented above, after the interviews with the psychologist, in which fulfillment of the criteria was re-examined, the final figure was 60. Subsequently, this same psychologist proceeded to carry out the pretest assessment and random assignment to the four experimental groups.

The professionals involved in the study were: (a) the GPs who preselected the sample; (b) the clinical psychologist, who carried out the assessments and was the therapist of the CBT group and the PPR group; and (c) a psychologist with experience in dynamization of self-help groups, who was the therapist of the social support (SS) group.

**Materials**

In the four assessments of the experimental participants (pretest, post-test, and follow-ups at 6 and 12 months), the following instruments were used:

- **Interview protocol** developed ad hoc. This protocol included Holmes and Rahe’s (1967) Social Readjustment Rating Scale (SRRS), on which the higher the score the more the negative life events experienced by the participant.

- **Beck Depression Inventory (BDI)** (Beck, Rush, Shaw & Emery, 1983). Higher scores would indicate greater degrees of depression. The BDI attains a test-retest reliability of 0.70, a two-halves reliability of 0.93 and an internal consistency (Cronbach’s alpha) of 0.87; its concurrent validity with the Hamilton
Zung scales or with experts’ judgements ranges from 0.50 to 0.80 (Bulbena, Berrios & de Larrinoa, 2000). – Cuestionario de Calidad de Vida (CCV; Quality of Life Questionnaire) (Ruiz & Baca, 1993). With this instrument, the higher the score, the greater the degree of quality of life. The authors of this questionnaire report a test-retest reliability of close to 0.97, an internal consistency (Cronbach’s alpha) of 0.94 and a concurrent validity with Hamilton’s depression and anxiety scales of close to 0.74 (Ruiz & Baca, 1993).

– Cognitive Triad Inventory (CTI) (Beckham, Leber, Watkins, Boyer & Cook, 1986). The higher the score, the lower the presence of negative cognitions. The authors of this questionnaire found an internal consistency of alpha=0.95, a moderate discriminant validity (0.13) and a concurrent validity of 0.67 with respect to other self-reports of self-esteem and despair, including the BDI (Beckham, Leber, Watkins, Boyer & Cook, 1986).

– Escala de Expresión Social-Parte Motora (EES; Social Expression Scale-Motor Part) (Caballo, 1993). The higher the score on this questionnaire, the greater the respondent’s social competence. Its author found a test-retest reliability of 0.92, a similar internal consistency and a concurrent validity of 0.87 with respect to the College Self-Expression Scale (CSES) by Galassi, DeLo, Galassi and Bastien (Caballo, 1993).– Autoregistro de actividades y estado de ánimo (AAE; Self-record of activities and mood), scored from 0 (sad) to 10 (happy) over a period of 7 days, developed ad hoc.

Also used were:
– An intervention protocol for each one of the groups in the study.
– A self-record of activities, thoughts and everyday problems for the CBT group sessions.
– Lewinsohn’s List of Pleasant Activities and list of community resources drawn up ad hoc for the second session of the CBT group.

The following materials were provided for the GPs:
– An information document about the study.
– A guide to the preselection process, setting out in detail the inclusion and exclusion criteria.
– Periodical reports on each patient.

Variables
Independent variable (IV) was type of treatment to which the participant was assigned: CBT, PPR, SS or WL (control group).

In order to rate the efficacy, effectiveness and efficiency of the different treatments various criterion variables (CRV) were selected. Details of these appear in the Results section.

A range of control variables (COV) were taken into account, such as: (a) pretest scores on the Beck Depression Inventory (BDI), the Quality of Life Questionnaire (CCV), the Cognitive Triad Inventory (CTI) and the Escala de Expresión Social-Parte Motora (EES) and the Self-record of activities and mood (AAE); (b) social adjustment and motivation for change, reported by the participant in the pretest assessment; (c) life events and triggering factors, referred to by the participant in each one of the four assessments; (d) sociodemographic characteristics, physical health and perceived social support; (e) depressive and non-depressive symptoms; (f) antecedents of psychopathology, antecedents of mental health treatment and previous duration of the problem for which participant was referred to the study. These three last three types of variables were provided by the participant in the interview pretest.

Procedure
First of all, a clinical psychologist organized an information session with the GPs at each Primary Care Centre. Once the preselection of participants by the doctors was complete, the psychologist made the definitive selection in accordance with the assessment procedures and selection criteria described above.

The final sample was made up of 60 participants. Once they had been randomly assigned to the treatments, the three experimental interventions were carried out. Each consisted of six weekly, 1-hour sessions, at the three Primary Care Centres, in which the corresponding therapist and group of participants took part. It should be stressed that in all the treatment conditions the same therapeutic objectives were addressed: the management of life problems. What distinguished the interventions from one another were the procedures and therapeutic techniques employed in the pursuit of these objectives. Thus, and in all the groups, the sessions were oriented to coping with the following problems:

Session 1: occupation and distribution of time.
Session 2: negative thoughts.
Session 3: problems with decisional-making.
Session 4: problems related to interpersonal communication.
Session 5: family problems.
Session 6: relationship problems.
In the CBT group the intervention was carried out in accordance with the format and application of the techniques characteristic of Beck’s (1983) cognitive therapy for depression.

In the PPR group it was attempted to promote and generalize the use of participants’ own effective strategies for coping with the problems, which they had already incorporated in their behavioural repertoires, without instructing them and/or training them specifically in new strategies. Thus, the therapist asked participants how they dealt with the different problems raised in each session (what they did and how, and the utility they observed) and paid selective attention to those that emerged as most appropriate insofar as they were closest to those postulated by the cognitive-behavioural model (for example, «trying to distract oneself with something that requires concentration» is considered adaptive for coping with an excess of recurrent negative thoughts; on the other hand, «trying to use more willpower» is considered maladaptive for coping with abulia).

In the SS group the therapist chaired the debates on these same problems, with paying selective attention to the forms of coping mentioned, but simply promoting the interchange of experiences among participants.

Box 1 shows details of the content of the treatments. For a more detailed specification of the procedures, see González (2004).

In all the experimental groups the therapists measured variables referring to attendance and fulfilment of the objectives during the sessions.

After the experimental interventions, the clinical psychologist carried out, on the whole sample, the post-test assessment, consisting in an individual interview at the Health Centre and application of the BDI, CCV, ITC and EES tests, as well as the AAE. Of the 60 participants making up the initial sample, 58 completed the post-test.

Finally, the clinical psychologist carried out two follow-up assessments on all participants, one 6 months and the other 12 months after completion of the experimental groups phase. Each follow-up consisted in an individual interview at the Health Centre and application of the same instruments as in the post-test. Of the 58 participants who completed the post-test, 46 attended the first follow-up, and of these, 29 attended the second. At the first follow-up the waiting list (WL) participants were offered the opportunity to take part in the same psychotherapy at the Health Centre as received by the CBT group.

In the course of the study the psychologist sent periodical reports to the doctors about the evolution of their patients.

**Design and data analysis**

A quantitative analysis of the variables referring to the participants was carried out. It included the following calculations: (a) distributions of frequencies and descriptive statistics for the sample as a whole and divided by treatment groups; (b) intergroup comparison by means of ANOVA, Kruskal-Wallis and Chi² correlations of the control variables (COV); and (c) comparison intergroup and between the four measurement points by means of ANOVA, Kruskal-Wallis, Chi² correlations and T tests of the criterion variables (CRV). We used p<0.01, .05 or .10, according to the case.

**RESULTS**

The sample characteristics (COV of the pretest) were quite heterogeneous, except with respect to gender, referring GP and physical health. Thus, the mean experimental participant is a woman aged 39.47 years, middle class, with secondary-school education and currently in work; she is married and lives with a mean of 2.27 people, and although she perceived her social support to be good, she has over the last 3 years experienced one or more painful life events related to the interpersonal and/or job context; she is in good physical health and has never previously presented psychological problems or received treatments of this type; in the pretest she presents diverse depressive symptoms, not mixed with other, non-depressive symptoms, and which she has been experiencing over the last 12.52 months; she obtains 23.81 points on the BDI, and this is why she consulted a professional, the GP, for the first time 7.93 months previously; since then the GP has been prescribing her benzodiazepines and antidepressants. Intergroup comparison of the COVs showed no significant difference, indicating a homogeneous distribution.

Box 2 shows the results of the intergroup comparison of the CRV measured in the post-test and in both follow-ups. Box 3 presents the statistical data for these results. In either box it can be seen that the waiting list (WL) group yields poorer results than the other three groups for the majority of the variables and points of measurement. Moreover, the social support (SS) group’s results are comparable with those of the two psychotherapies in variables such as those of the BDI, the CCV or the ITC, but it offers poorer results than
these in variables such as perceived satisfaction, participation in sessions or practice of the strategies learned. The results of the SS group are better than those of the WL group, especially the later the measurement (6 or 12 months). These affirmations are not applicable in the cases of: (a) social skills (EES); (b) fulfillment of immediate objectives; and (c) participant’s occupation, use of psychoactive drugs and increase in activity at any measurement point.

Box 4 shows the statistical data for the results of comparison of the CRVs measured in the four assessments for each group. As it can be seen, for the cognitive-behavioural therapy (CBT) group there were positive changes in practically all the variables (except social skills) in the post-test with respect to the pretest, changes which, moreover, were maintained, or even improved upon, in both follow-ups. The same can be said for the promotion of personal resources (PPR) group. For the SS group there were also positive changes in practically all the post-test variables with respect to the pretest, but the levels of both negative cognitions and quality of life were not maintained in both follow-ups, returning instead to the pretest levels. Finally, for the WL group practically no positive changes were obtained over time in any of the variables.

**DISCUSSION AND CONCLUSIONS**

In accordance with the initial objective of analyzing the efficacy, effectiveness and efficiency of the three experimental interventions, the results permit us to state that the cognitive-behavioural therapy (CBT), promotion of personal resources (PPR) and social support (SS) are efficacious, effective and efficient in the majority of the criterion variables (CRV) of the post-test, but that only CBT and PPR (and not so much SS) are efficacious, effective and efficient in the CRVs in the follow-ups. That is, all three experimental groups obtain positive results in reduction of depressive symptoms and referral to mental health specialists and in increased quality of life, but only CBT and PPR succeed in maintaining these results at the 1-year follow-up.

Comparing the groups with one another, it can be

<table>
<thead>
<tr>
<th>Session</th>
<th>Cognitive-behavioural psychotherapy</th>
<th>Promotion of personal resources</th>
<th>Social support</th>
</tr>
</thead>
<tbody>
<tr>
<td>2ª</td>
<td>Review. Homework tasks. Programming of reinforcement activities. Use of community resources. Homework tasks (practice, self-record of activities planned).</td>
<td>Selective attention to coping skills for occupation of time with activities. Homework tasks (practice, informal observation of how time is occupied).</td>
<td>Review. Discussion about how the week has gone. Debate about occupation of time with activities.</td>
</tr>
</tbody>
</table>
Variables Groups and direction of differences

Variables indicating efficacy
- BDI post-test
- BDI 1st follow-up
- CTI post-test
- CTI 1st follow-up
- Mood in AAE post-test
- Idem 1st follow-up
- Idem 2nd follow-up
- EES post-test
- EES 1st follow-up
- EES 2nd follow-up

Variables indicating effectiveness
- Degree of use of social support
- Degree of practice of problem-solving at 1st follow-up
- Degree of practice of cognitive strategies at 1st follow-up
- Degree of practice of behavioural strategies at 1st follow-up
- Insomnia at 2nd follow-up
- Sadness at 1st follow-up
- Insomnia and suicidal thoughts

Variables indicating efficacy
- Use of psychoactive drugs at post-test and 1st/2nd follow-up
- Job at post-test and 1st and 2nd follow-up
- Depressive symptoms reported by participant at post-test:
  - Sadness, cognitive problems, inhibition, anxiety, fragility, insomnia and suicidal thoughts
- Increased activ. 2nd follow-up
- Non-depressive symptoms at post-test and 1st/2nd follow-up

Variables indicating effectiveness
- Perceived utility for problem
- Practice of strategies (number) at 1st follow-up
- Immediate fulfilment of objectives

Non-parametric quantitative and ordinal CRVs.

- Participation in sessions
- Immediate fulfilment of objectives
- Sustained fulfilment of objectives
- Practice of strategies (degree) at 1st follow-up
- Practice of strategies (number) at 1st follow-up
- Perceived utility for participant for the problem

Nominal CRVs

- Variables indicating efficacy
  - Participation in sessions
  - Job at post-test and 1st and 2nd follow-up
  - Use of psychoactive drugs at post-test and 1st/2nd follow-up
  - Depressive symptoms reported by participant at post-test:
    - Sadness, cognitive problems, inhibition, anxiety, fragility, insomnia and suicidal thoughts
  - Increased activ. at post-test and 1st/2nd follow-up
  - Anxiety at 1st follow-up
  - Suicidal thoughts at 1st follow-up
  - Insomnia at 2nd follow-up
  - Suicidal thoughts at 2nd follow-up
  - Increased in AAE activ. at post-test and 1st/2nd follow-up

- Variables indicating effectiveness
  - Degree of practice of behavioral strategies at 1st follow-up
  - Degree of practice of cognitive strategies at 1st follow-up
  - Degree of practice of problem-solving at 1st follow-up
  - Degree of practice of social skills at 1st follow-up
  - Degree of use of social support

- Non-depressive symptoms reported by participant at 1st follow-up
- Non-depressive symptoms reported by participant at 2nd follow-up

** = difference statistically significant with p<0.10.
(1) = difference in the direction that at some point there would be lower BDI or higher CCV, CTI and EES than previously.
IV = independent variable; CRV = criterion variable(s); BDI = Beck Depression Inventory; CTI = Cognitive Triad Inventory; AAE = mean of mood on self-record of activities and mood; EES = Social Expression Scale – Motor Part; CCV = Quality of Life Questionnaire; CBT = Cognitive-Behavioural Therapy group; PPR = Promotion of Personal Resources group; SS = Social Support Group; WL = Waiting List group
concluded that CBT and PPR do no show significant differences from one another, but that they are more efficacious, effective and efficient than SS in the majority of the CRVs, and that SS, in turn, yields better results than those found for the waiting list (WL) group.

It is important to point out that given that after the pretest, many more participants from SS (4 people) and WL (all except one) were referred to mental health specialists than from CBT and PPR (from which none were referred), the positive results of these two groups could be due, in part, to such referral.

There are, however, some exceptions to these general conclusions. First of all, the differences reported were not found in social skills, which were either not trained sufficiently in CBT or were not measured adequately with the EES (or indeed, their variation depends on factors unrelated to the intervention). Secondly, the fact that in SS the participants achieved more immediate objectives than those in CBT and PPR may be explained by the fact that the SS objectives (participants were only required to participate spontaneously in the discussions in each session) were less demanding than those of the CBT and PPR (in which participants had to practise the skills acquired or promoted in the week following each session). Thirdly, participant’s occupation (active, off sick, unemployed, etc.) in the post-test and follow-ups did not differ as a function of group, perhaps because it was influenced by other factors unrelated to the psychopathology (socioeconomic class, job satisfaction and conditions, physical health, etc.). Fourthly, consumption of psychoactive drugs in the post-test and the follow-ups did not differ as a function of group either, and this finding should be attributed to the primary care protocol that involved the invariable prescription of these drugs for a given period, and to patients’ typical resistance to give up treatment that has coincided with an improvement in their condition. And finally, fifthly, the experimental groups did not succeed in increasing participants’ activity level more than WL, a finding that can be explained by the personal needs and circumstances that modulate the number of behaviours they carry out daily.

In addition to all the above, participants in the CBT and PPR, compared to the SS and WL, participated in more sessions, more successfully maintained the therapeutic objectives, were less likely to drop out of the study and,

<table>
<thead>
<tr>
<th>Box 4</th>
<th>Comparison between different measurement points of the criterion variables divided by treatment groups (statistical data)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Group</td>
<td>Variables</td>
</tr>
<tr>
<td>CBT</td>
<td>BDI</td>
</tr>
<tr>
<td></td>
<td>CTI</td>
</tr>
<tr>
<td></td>
<td>AAE</td>
</tr>
<tr>
<td></td>
<td>EES</td>
</tr>
<tr>
<td></td>
<td>CCV</td>
</tr>
<tr>
<td>PPR</td>
<td>BDI</td>
</tr>
<tr>
<td></td>
<td>CTI</td>
</tr>
<tr>
<td></td>
<td>AAE</td>
</tr>
<tr>
<td></td>
<td>EES</td>
</tr>
<tr>
<td></td>
<td>CCV</td>
</tr>
<tr>
<td>SS</td>
<td>BDI</td>
</tr>
<tr>
<td></td>
<td>CTI</td>
</tr>
<tr>
<td></td>
<td>AAE</td>
</tr>
<tr>
<td></td>
<td>EES</td>
</tr>
<tr>
<td></td>
<td>CCV</td>
</tr>
<tr>
<td>WL</td>
<td>BDI</td>
</tr>
<tr>
<td></td>
<td>CTI</td>
</tr>
<tr>
<td></td>
<td>AAE</td>
</tr>
<tr>
<td></td>
<td>EES</td>
</tr>
<tr>
<td></td>
<td>CCV</td>
</tr>
</tbody>
</table>

*= difference statistically significant with p<0.10; (1)= difference in the direction that at some point there would be lower BDI or higher CCV, CTI and EES than previously; IV= independent variable; CRV= criterion variable(s); BDI= Beck Depression Inventory; CTI= Cognitive Triad Inventory; AAE= mean of mood on self-record of activities and mood; EES= Social Expression Scale - Motor Part; CCV= Quality of Life Questionnaire; CBT= Cognitive-Behavioural Therapy group; PPR= Promotion of Personal Resources group; SS= Social Support Group; WL= Waiting List group
6 months after the intervention, were more likely to practice the skills learned or promoted (behavioural, cognitive, etc.) and to seek social support.

In sum, it would appear justified to use therapeutic groups in primary care for the secondary prevention of depression, that is, to prevent, in people with moderate depressive symptoms, the worsening of those symptoms, the emergence of a psychopathology on the depressive spectrum or of another type, a deterioration in perceived quality of life and satisfaction and the need to seek specialist mental health attention. Such justification becomes even stronger, moreover, if we bear in mind the reduction in health costs involved. As regards the procedures, it would also seem justified to employ both CBT and intervention aimed at promoting the participant’s own competencies. These conclusions lend support to the hypothesis on the basis of these interventions were designed, and which is that the principal active component of CBT in depression is its capacity for promoting in the participant the use of coping strategies already incorporated into his or her basic repertoire of behaviour. That is, people will benefit from a therapeutic procedure in which they are stimulated to bring into play strategies already acquired but little or poorly used, in which they are taught to use them in a more adaptive way in the appropriate contexts, in which they will be maximally generalized and taken advantage of. On the other hand, training in new skills for the participant may not turn out to be so effective insofar as sessions in a clinical context do not work sufficiently well as a substitute for the real context in which such skills must emerge as functional. In any case, this only serves to heighten the need to continue research in this line and study more in depth which elements promote change in therapies, as well as which participant characteristics make them most suitable for this type of intervention.

REFERENCES


Cohen, G.D. (2002). Promoting mental health, treating mental illness. Broadening the focus on intervention. Geriatrics, 57, 1, 47-48,


Howard, L.M., Hoffbrand, S., Henshaw, C., Boath, L. &


