Person-centred counselling to ameliorate symptoms of psychological distress among South African patients living with hypertension and diabetes: Results of an intervention study

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Abstract

Background: Previous research, internationally and in South Africa, suggests that symptoms of depression and anxiety are prevalent among patients living with a chronic illness. Very few behavioural interventions have shown to be effective in ameliorating such symptoms among patients attending public health clinics in South Africa. In this study, a five-session counselling programme was tested to ameliorate symptoms of depression and anxiety in clinic patients living with diabetes and hypertension in the Western Cape, South Africa.

Method: A convenience sample of patients (n = 37) was recruited from two public clinics. The sample was non-randomly assigned to a treatment group (n = 20) and a control group (n = 17), and assessed before and after the intervention was presented. A battery of instruments consisting of the Hopkins Symptom Checklist, the Beck Depression Inventory, and the Beck Anxiety Inventory was administered before and after the intervention.

Results: The results indicate that person-centred counselling was effective in ameliorating general psychological distress and symptoms of depression, but not symptoms of anxiety, as measured by the above instruments. The results suggest that psychological counselling may be helpful to medical patients.

Conclusions: While counselling interventions may be well placed in public health settings from the perspective of treatment efficacy, it is necessary to temper this recommendation with an understanding of the barriers to implementing such services and the resulting impact on therapeutic effectiveness.

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Introduction

Symptoms of depression and anxiety are common in medical patients, particularly those living with a chronic illness. Most research on depression in medical patients has been conducted on American samples, where the prevalence of depressive symptoms has been shown to vary depending on the nature of the sample and the method of assessment used. Between 16% and 25% of patients attending primary care medical facilities displayed depressive symptoms of such a magnitude that they fell into the clinical range.[1–4]

While there have been several studies of depression and anxiety among general community samples in developing countries, e.g. in Indonesia,[5] Punjab, India,[6] and Zimbabwe,[7] only a few studies have examined these psychiatric problems among medical patients. In a Nigerian general hospital, for example, the prevalence of general psychiatric morbidity among typhoid patients was found to be 19.1%, with 3.8% meeting ICD-9 criteria for generalised anxiety disorder and depression.[8] Similarly, in another sample of Nigerian hospital patients, 22.6% of patients with liver cirrhosis and 2% of patients with hypertension had experienced a depressive episode, while 12.95% of cirrhosis patients but no hypertension patients had experienced generalised anxiety disorder, as measured by the Present State Examination.[9] Among a sample of HIV-infected people in Uganda, 47% scored in the elevated range on the Center for Epidemiological Studies – Depression Scale (CES-D), with those with low CD4 counts more than twice as likely to be depressed than those with high CD4 counts.[10]

Among South African samples, the prevalence of symptoms of depression and anxiety similarly appear to vary widely, depending again on the sample studied and the method of assessment used. In a two-stage community-based survey of rural community members, 3.7% had anxiety and 4.8% had depression.[11] On the other hand, in a South African study of post-partum depression in a peri-urban sample, a point prevalence of 34.7% was found.[12] Among a sample of South African HIV-infected patients, 34.9% had major depression and 21.5% had dysthymic disorder, as assessed by the MINI International Psychiatric Interview.[13] In a six-month follow-up study of this sample, 26% of the sample continued to meet the criteria for depression.[14] Among another sample of patients living with HIV, 33.4% reported symptoms of anxiety and depression, compared with 24.2% in a randomly selected community sample.[15] Kagee has shown that, among South African patients attending public health clinics for the treatment of hypertension and diabetes, nearly 40% scored in the distressed range on the Hopkins Symptom Checklist and just over 20% scored in the moderate to severe range on the Beck Depression Inventory.[16] In the absence of a systematic approach to treatment, it is apparent that depression and anxiety among patients attending public health clinics, while relatively common, may go

untreated. Medical patients who do not receive psychological support for these problems face further potential difficulties, including poor quality of life, low rates of treatment adherence, family dysfunction, and greater usage of health services.

Psychological interventions for depression and anxiety first rose to prominence in the National Institute of Mental Health Treatment of Depression Collaborative Research Program[17] in which it was demonstrated that psychological treatments were at least as effective as pharmacological interventions for persons living with depression. More recently, as reported in a meta-analysis by Cuijpers et al,[18] problem-solving therapy showed a moderate to large effect size in the treatment of depression. Problem-solving therapy requires the patient to generate a list of problems, develop a list of possible solutions, select the most appropriate option, develop an implementation plan, and then evaluate the result.[19] Similarly, psychodynamic supportive psychotherapy has shown effective results in reducing symptoms of depression.[20] Other psychological interventions that have shown positive results in ameliorating depressive symptoms include a combination of person-centred therapy and emotion-focused therapy,[21] positive psychotherapy,[22] self-system therapy,[23] and cognitive control therapy.[24]

The need for psychotherapeutic services often outweighs the number of qualified professionals able to dispense them. To this extent, the delivery of sophisticated state-of-the-art interventions in community settings, such as those tested in the randomised clinical trials, is often not possible, even in industrially developed countries where resources are available. In a developing country such as South Africa, expertise in interventions such as cognitive therapy, emotion-focused therapy and self-system therapy is scarce, even among trained professionals, who themselves are few in number in proportion to the population that requires services. We decided to test person-centred counselling, as it is easier to train psychologists and counsellors in this approach than in other, more sophisticated approaches. While we used registered psychologists for this study, it was anticipated that the successful delivery of person-centred counselling to medical outpatients would imply the appropriateness of training counsellors, both lay and professional, to provide effective counselling to ameliorate symptoms of depression and anxiety among patients.

The aim of the present study was to develop and test a psychosocial intervention programme to ameliorate psychological distress, particularly symptoms of depression and anxiety, in patients attending two public health clinics in the Boland region of the Western Cape for the treatment of diabetes and hypertension. It was hypothesised that psychological support in the form of structured counselling sessions, during which the patients would be able to articulate their distress in a supportive, empathic and non-judgmental context, would be helpful in alleviating their distress.

Method

Participants

Patients attending two primary health care clinics in the Western Cape for the treatment of diabetes and hypertension were invited to participate in the study. Eligibility criteria included a formal diagnosis from a medical doctor, and a prescription for medication or behavioural adaptations aimed at symptom reduction or control. A convenience sample of participants was recruited via the clinic staff, who informed patients of the study. Patients who were interested were referred to a research assistant, who gave them further details of the study and information on how to enrol. All the patients signed an informed consent form on enrolment.

Procedures

The patients who agreed to participate were assigned to either a treatment or a control group. Because of the limited availability of the psychologists who provided the psychological treatment, and the difficulty in recruiting participants who were able to invest the time to attend five weekly counselling sessions, it was not possible to randomly assign patients to groups. Instead, as patients were enrolled, the first 20 were referred to one of the four psychologists, while the rest were referred to the control group. Patients were thus non-randomly assigned to the two groups. We originally intended to recruit an equal number of patients for each arm of the study, but it became apparent that not many patients were available to attend the health promotion workshop. For this reason, only 17 people received the control group.

Treatment group: Patients who received the treatment group received five counselling sessions from one of four registered psychologists. The counselling sessions were designed to give patients the opportunity to express and process their feelings about their illness, provide ways to address problems and difficulties they encountered in living with a chronic illness, including adherence to treatment, and assistance in harnessing appropriate social support. The counselling sessions were broadly person-centred in orientation, but also contained opportunities to engage the patients in active problem solving.

Control group: Patients who were assigned to the control group were asked to participate in a three-hour-long workshop in which various topics related to health promotion were presented. These topics included healthy eating, regular exercise, positive interpersonal relationships, drinking in moderation, and the importance of not smoking. The workshop was presented by a non-clinician researcher involved in the study.

Measures

Patients in both arms of the study were assessed prior to and immediately following the intervention.

Psychological distress: The 25-item version of the Hopkins Symptom Checklist (HSCL-25) was used to assess global psychological functioning.[25] This instrument is derived from the 90-item Symptom Checklist (HSCL-90), and has also been used to test symptoms of depression and anxiety. It is comparable with other assessment instruments, such as the CES-D, in detecting a psychiatric disorder.[26] The scale has a demonstrated internal consistency of .95,[27] and was highly correlated with the standard 58-item version of the scale.[28] In a study of South African former political detainees, the HSCL displayed a Cronbach's alpha of .96.[29] which was also the value of alpha for the present study.

Symptoms of depression: The Beck Depression Inventory (BDI) was used to measure symptoms of depression.[30] The BDI, a 21-item self-report measure, has been used extensively in depression research and has demonstrated consistently excellent reliability and validity in a variety of samples worldwide. In a previous South African study,[16] the internal reliability of this instrument as measured by Cronbach's alpha was 0.85.

Symptoms of anxiety: The Beck Anxiety Inventory (BAI) was used to measure symptoms of anxiety.[31] The BAI, a 21-item self-report measure, has been used extensively in anxiety research and has demonstrated consistently good reliability and validity in a variety of samples worldwide.

Analysis

The data were entered into SPSS version 14. Descriptive statistics were generated for the various measures. The Kolmogorov-Smirnov test was used to determine whether scores on the HSCL-25 were normally distributed.[32] T-tests were used to determine whether significant differences existed between the sample means before and after the intervention.

Results

Description of the sample

A total of 37 patients were enrolled in the study, 20 of whom were non-randomly assigned to the treatment group and 17 to the control group. Table I displays the demographic data of the sample. As can be seen, patients who enrolled in the treatment group were on average 10 years younger than those in the control group.

Table I: Demographic information

	Treatment group	Control group
Gender		
Male	5	0
Female	15	14
Mean age	55.60	66.50
Marital status		
Unmarried	2	1
Widowed	8	7
Separated/divorced	1	1
Married/living together	9	5
Educational level		
No formal education	2	0
Completed primary school	8	9
Attended but did not complete high school	6	5
Completed high school	1	0
Did not complete primary school	3	0
Employment		
Working full time	3	0
Unemployed	7	2
Homemaker	4	1
Retired	6	11
Income level		
0	2	0
Less than ZAR 10 000	12	2
ZAR 10 000 to 40 000	4	2

Pre-test comparisons

As can be see in Table II, the pre-test comparisons between the two groups for the BDI and BAI were non-significant, indicating equivalence of the groups on these measures. The pre-test comparison between the two groups for the HSCL was significant at the 0.05 level, with the treatment group scoring in the clinical range.

Table II: T-test for equality of means

	df	sig 2 tailed	mean difference	SE of difference
BDI pre	32	0.428	3.49	4.34
BAI pre	31	0.270	3.81	3.40
HSCL pre	32	0.044	7.64	3.65

The effect of the counselling intervention on scores on the BDI, BAI and HSCL

Table III shows that, for the group receiving psychological treatment, there was a significant difference between the pre- and post-test mean scores on the BDI, while a non-significant difference was observed in the control group. On the HSCL there was a significant difference between the pre- and post-test means of the treatment group, but a non-significant difference between these means in the control group. We were unable to show any significant differences between the pre- and post-test mean scores on the BAI.

Table III: T-test results for differences between pre- and post-test (treatment group)

	Mean	SD	t	df	p
BDI pre – BDI post	5.30	9.27	2.56	19	0.02
BAI pre – BAI post	2.50	10.16	1.10	19	0.29
HSCL pre – HSCL post	6.35	10.73	2.65	19	0.02

The effect of the health promotion workshop on scores on the BDI, BAI and HSCL

As can be seen in Table IV, there were non-significant differences between pre- and post-test on the BDI and HSCL for the group receiving the control group of a health-promoting workshop, although a significant difference was found between the pre- and post-test mean scores on the BAI.

Table IV: T-test results for differences between pre- and post-test (control group)

	Mean	SD	t	df	p
BDI pre – BDI post	3.79	8.95	1.58	13	0.14
BAI pre – BAI post	3.93	4.62	3.06	12	0.01
HSCL pre – HSCL post	2.57	7.76	1.24	13	0.24

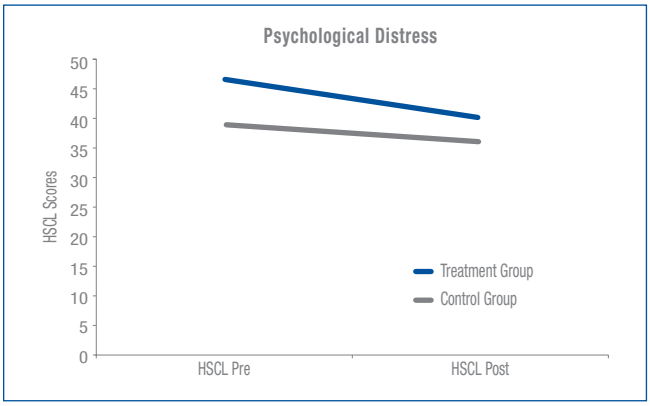
Discussion

The aim of the study was to test the effectiveness of a person-centred counselling programme in ameliorating psychological distress among patients attending two public health clinics for the treatment for diabetes and hypertension. As shown by Kagee, symptoms of anxiety and depression are common among South African patients living with chronic illnesses.[16] However, there has been a paucity of intervention studies of South Africans with these symptoms in general, and of those receiving services from the public health sector in particular.

Psychological distress: We found that person-centred counselling was effective in ameliorating psychological distress in the sample. As shown in Figure 1, the mean HSCL score of patients in the treatment group was 46.35, which exceeded the commonly used cut-off point of 44,[27] and therefore fell into the clinical range for that measure. After receiving the counselling intervention, the mean HSCL score dropped to 40.00, which falls below the cut-off point, indicating non-distress. On average it appears that person-centred counselling was responsible for a drop in HSCL scores of more than six points.

Those patients who were assigned to the control group did not appear to benefit significantly in terms of a reduction in symptoms of psychological distress, suggesting that the presence of individual psychological support was a necessary component of psychological change in the sample. On the other hand, a possible reason for a non-significant difference

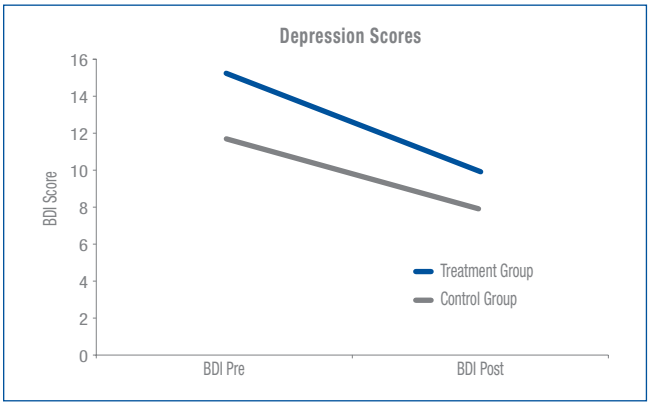
Figure 1: Pre- and post-test scores on the HSCL



in the control group was that the mean score of the patients already fell in the non-distressed range at pre-test (38.71), indicating a possible floor effect. It might thus have been unrealistic for scores to decrease further.

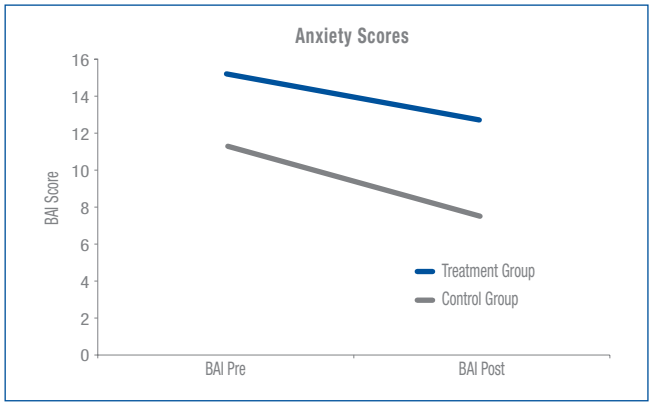
Depression scores: Patients appeared to benefit from counselling in terms of a reduction in symptoms of depression, as measured by the BDI scores. The control group showed no such benefit. As shown in Figure 2, the mean score of patients in the treatment group at pre-test was 15.20, which fell in the mild to moderate range of the BDI. At post-test, the mean score had decreased to 9.90, which fell in the normal range and which was a statistically significant difference. Among patients in the control group we observed a similar drop in the mean score from pre-test to post-test, although this difference was non-significant. These findings permit us to conclude that the counselling intervention was successful in ameliorating symptoms of depression among the sample, but that the health-promoting workshop was not. This result is consistent with previous findings concerning the efficacy of counselling in ameliorating symptoms of depression.[19]

Figure 2: Pre- and post-test scores on the BDI



As can be seen in Figure 3, we were unable to show any effect for the counselling intervention in terms of symptoms of anxiety scores as measured by the BAI. It is thus possible that the counselling intervention that was tested in the study was useful only for reducing general psychological distress and symptoms of depression, but not for reducing anxiety. In all, however, our results show a modest effect of person-centred counselling on psychological distress, especially on symptoms of depression.

Figure 3: Pre- and post-test scores on the BAI



Our results suggest that psychological counselling may have a place in the range of services offered to patients attending public health clinics. However, given scarce financial and human resources, which are characteristic of the South African public health system, it is necessary to temper this recommendation with an understanding of the barriers to implementing such services. The cost of hiring registered psychologists is likely to be prohibitive, indicating the need for lesser trained professional or lay counsellors. Lay counselling services are already available for AIDS patients who receive antiretroviral therapy, where problems relating to mental health and treatment adherence are significant. We recommend that similar services be considered for patients with chronic illnesses so as to enhance their quality of life and ameliorate psychological distress, including depression.

Limitations of the study

Our procedure of non-random assignment to groups was only partially successful. The groups were equivalent at pre-test in terms of scores on the BAI and BDI, but not on the HSCL. This finding displays the importance of random assignment in intervention studies. However, the public health system is characterised by varying levels of organisation in the clinics, to the extent that it was difficult to recruit a sample and systematically assign it to groups in a random manner. Instead, it was procedurally easier to recruit a convenience sample and offer psychological counselling to the first 20 patients and a health-promoting workshop to the remainder. It should be mentioned that 20 people were scheduled to attend the workshop, but only 17 attended.

The size of the sample recruited for the study was in part driven by budgetary constraints, particularly the cost of hiring master's level registered psychologists to conduct five counselling sessions with each patient. A related problem was that the process of recruitment of participants for the study took longer than expected. Due to ethical responsibilities, we placed the onus on patients to volunteer to participate, rather than actively approaching them and inviting them to participate. Thus, the process of enrolling patients for the study was somewhat cumbersome, especially with the control group. It is possible that unfamiliarity with workshop participation may have made some patients reluctant to sign up, although we experienced no such problems when enrolling patients for the counselling group.

Despite finding some significant effects for person-centred counselling, it may be that a more specific, focused and manual-based psychosocial intervention may have yielded even more robust findings. We suggest that the tailoring and adaptation of other models of psychological treatment, such as cognitive behavioural therapy, should be explored in further research.

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