

## Research paper

# A questionnaire to help general practitioners plan cognitive behaviour therapy

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### ABSTRACT

**Aim** The cognitive-behaviour therapy (CBT) model argues that negative cognitions regarding the self, the world and the future characterise the information processing of distressed individuals. The aim of the present study is to produce a brief self-administered questionnaire – the Dysfunctional Preconceptions Questionnaire (DPQ), which will assist general practitioners (GPs) to plan brief psychological therapy. We describe its psychometric properties and illustrate first use by GPs of a brief CBT-style therapeutic approach, based on data provided by the DPQ.

**Methods** The DPQ was developed on the basis of clinical observation and relevant literature, and is designed to screen for common negative cognitions. It was administered to a sample of 85 outpatients diagnosed for depression as well to a control group consisting of 78 normal subjects,

together with the Beck Depression Inventory and the General Health Questionnaire.

**Results** After five items had been removed, the three subscales of the DPQ dealing with the self, the world and the future had high internal consistency, and correlated with the other measures of distress. A three-factor solution produced a satisfactory fit and corresponded to the original dimensions. Scores on all factors discriminated well between depressives and controls.

**Conclusions** The three subscales correspond to the three dimensions originally conceptualised, and preliminary evidence is presented concerning the usefulness of the scales to GPs.

**Keywords:** cognitive behaviour therapy, depression, general practice

## Introduction

Since general practitioners (GPs) have to use a practical, problem-solving approach in their daily practice, their approaches are mainly based on each GP's personal experiences or subjective perceptions of whether various thoughts and attitudes of their patients are more or less adaptive.<sup>1</sup> Though the effectiveness of cognitive-behavioural therapy (CBT) methods in specialist settings is well documented,<sup>2</sup> its long-term effectiveness in general practice has been recently in doubt.<sup>3</sup> King *et al* (2002) describe a training package for GPs spread over four and a half

days, which did not produce better outcomes in their depressed patients.<sup>4</sup> Even when CBT was provided by qualified CBT therapists, the results failed to ensure the long-term maintenance of outcomes in primary care.<sup>5</sup> Others have reported problems in teaching CBT to GPs,<sup>4,6</sup> and it therefore seemed worthwhile to design a questionnaire that might provide a framework for treatment, accompanied by a short training course.

The aim of the present study is to briefly describe the development of a self-administered questionnaire

which is intended to provide GPs with information that will assist them in planning a brief cognitive-style psychological intervention. The questionnaire may also be found useful to other workers in primary care, including nurses and social workers. Data will be presented concerning the internal consistency and the underlying structure of the scales.

## Methods

### The Dysfunctional Preconceptions Questionnaire (DPQ)

The DPQ was developed on the basis of study of the literature and clinical experience of one of us (MV). The DPQ was not intended to be used as a diagnostic tool, but rather to provide information about the three areas in which depressive thoughts may occur, which may be challenged in therapy. This resulted in three provisional scales of eight items each, corresponding to three areas of depressive thoughts: related to the self, the world and the future. Each item was followed by two questions, the first asking whether the item was considered by the respondent as more or less beneficial, and the second whether the item was perceived as likely to generate more- or less-pleasant feelings. When an endorsed item has been rated as being associated with either being non-beneficial or causing displeasure the GP need to challenge these assumptions, using techniques acquired during their training on the ways to challenge maladaptive beliefs.

During its development, the DPQ was piloted in Greece on 64 primary care patients, and to 80 HIV-positive inpatients and outpatients of the Academic Department of Pathophysiology (AIDS Unit), Laikon General Hospital, Athens University (see Appendix).

### Subjects

Participants in the present study were 85 depressed individuals and 78 controls. The depressed group

consisted of outpatients diagnosed with depression at the Athens University Psychiatric Clinic. Inclusion criteria were: age 18–70 years, diagnosed as cases of depression by specialised psychiatrists. Exclusion criteria were: currently taking antidepressant drugs, those known with co-morbidity with other mental disorders (dementia, organic brain syndromes, drug-related disorders or psychosis), those suffering from severe acute physical diseases, those unable to read or to speak the local language, and those with any sort of inability to understand or unwillingness to complete questionnaires. The control group consisted of 78 trainees who were to follow a mental health promotion programme provided by the Athens University Psychiatric Clinic to non-psychiatric health professionals, as well to community agents.

All participants completed three questionnaires: the DPQ, the General Health Questionnaire (GHQ-28),<sup>7</sup> and the Beck Depression Inventory (BDI).<sup>8</sup>

## Results

The DPQ does not show a gender difference ( $U = 2899$ ,  $n = 162$ ,  $P = 0.952$ ) or an age difference ( $H = 9.11$ ,  $n = 155$ , degrees of freedom (df) = 5,  $P = 0.105$ ).

As it can be seen from Table 1, depressives have much higher total scores than controls, and this is true for all subscales. Whereas the depressives have a near-normal distribution of total scores, the trainees – as might be expected – have positively skewed data, and the pooled data are also slightly positively skewed, indicating the need for non-parametric statistics. A highly significant difference was found between depressed participants and trainees, on the overall scale ( $U = 888.0$ ,  $n = 164$ ,  $P < 0.0005$ ). This was mirrored in scores on the three subscales; ‘Self’ ( $U = 990.5$ ,  $n = 164$ ,  $P < 0.0005$ ); ‘World’ ( $U = 2147$ ,  $n = 164$ ,  $P < 0.0005$ ); and ‘Future’ ( $U = 784.5$ ,  $n = 164$ ,  $P < 0.0005$ ). It would appear that the scale does successfully discriminate between depressed and non-depressed participants, with higher mean scores being found for depressed participants in all cases.

**Table 1** Means, standard deviations (SD) and 95% confidence limits of depressives and controls

	Depressives	Controls
Self	22.19 (SD = 8.66), 20.33–24.04	11.76 (SD = 4.66), 10.71–12.81
World	14.7 (SD = 9.57), 12.65–16.75	8.94 (SD = 6.95), 7.37–10.5
Future	19.41 (SD = 8.7), 17.54–21.27	7.4 (SD = 5.41), 6.2–8.62
Total	56.29 (SD = 20.75), 51.84–60.74	28.09 (SD = 14.13), 24.9 – 31.28

Table 2 shows that there are moderately strong correlations between the three scales, and between each scale and the total score.

Table 3 shows high values for internal consistency in all groups, with the exception of the 'self' scale for the controls. However, if item 14 is deleted from the data, alpha rises to +0.70.

Table 4 shows good correlations between the DPQ and the GHQ, and significant correlations with the BDI as well.

to meet assumptions of normal distribution, so an AGLS analysis was used. The relative contribution of items to the standardised three-factor solution was considered and weaker items removed, focusing primarily on the depressed participants' data. Removal of items s14, s17, w3, w22 and f23 resulted in acceptable fit values for both depressive participants and the control group of trainees. Removing cases 70 and 71 from the depressive participants' data (on the basis that their inclusion had the largest contribution to normalised multivariate kurtosis) also improved fit. No participants needed to be removed from the trainees' data. Table 5 gives the fit values obtained for the modified three-factor solution for both groups of participants.

For the three-factor solution on the depressive's data, the comparative fit index (CFI) of 0.915 is

## Factor structure

Confirmatory factor analysis was used to examine the three-factor structure for the DPQ. Measures of kurtosis and skewness indicated that the data failed

**Table 2** Correlations between the scales (Spearman's rho) for pooled data, depressives and controls

	Overall	Depressives	Controls
Self/World	0.457**	0.214*	0.49**
Self/Future	0.728**	0.563**	0.544**
Future/World	0.555**	0.449**	0.553**

**Table 3** Internal consistency (Cronbach's alpha) of the total scale and the subscales

	Overall	Depressives	Controls
Self	0.84	0.80	0.60
World	0.87	0.87	0.84
Future	0.88	0.80	0.79
Total DPQ	0.91	0.89	0.88

**Table 4** Correlations between the GHQ and BDI and the DPQ

Correlations	GHQ total	BDI
Self	0.65**	0.64**
World	0.33**	0.38**
Future	0.70**	0.68**
Total DPQ score	0.68**	0.69**

\*\* Correlation is significant at the 0.01 level (2-tailed).

**Table 5** Fit indices obtained for a three-factor solution on the DPQ

Index of fit	Depressives	Controls
Chi squared	$\chi^2$ (622) = 812.856, $P < 0.001$	$\chi^2$ (662) = 810.705, $P < 0.001$
CFI	0.915	0.912
NFI	0.672	0.662
RMSEA	0.115	0.117

satisfactory, though the Bentler–Bonett fit index (NFI) of 0.672 is somewhat disappointing. Also the value of Chi square (812.9 based on 622 df) is significant, indicating that there is still residual variation unaccounted for by the three-factor solution. A similar pattern is found with the trainees' data: a satisfactory CFI of 0.912 is found, though again the NFI is disappointing at 0.662. Chi square is still significant (810.705 based on 662 df).

## Discussion

The aim of the present study was to explore the psychometric properties of the DPQ.

A limitation of the study was that the control group was of a higher educational level than the depressed outpatients, and this needs to be remedied in future development work with larger patient groups, and may need further refinement. It remains to be seen whether the effects on patients using the DPQ are any better than non-directive psychotherapy, or the GP's usual treatment. The present paper merely shows that the DPQ relates to other measures of psychopathology, and provides information that can be used to structure a treatment plan. We have not shown that it is more effective than other forms of psychotherapy, nor do we know how it would compare with drug therapy. However, it may be especially suitable for those who do not wish to have drugs prescribed, and to those who are resistant to drugs. As experience is gained in structuring the training sessions it should become possible to train others to undertake them.

### ACKNOWLEDGEMENTS

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### CONFLICTS OF INTEREST

None.

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## Appendix: The Dysfunctional Preconceptions Questionnaire (DPQ)

M Vassiliadou and D Goldberg

Name:

Date of birth:

Sex:

Years of education:

This questionnaire consists of 24 items about dilemmas which we often face in daily life. Please answer each question by underlining the answers which are closest to what you believe (in the first column) and what you feel (in the second column). There are no right or wrong answers. So as to express your current views, please choose the answers that are closest to what you believe and feel at the moment, or at least over the last two weeks.

1 To have enough good things in life, even if I may not have as many as I would want:

would be in my interest	would appeal to me
would be slightly in my interest	would slightly appeal to me
would not be that much in my interest	would have little appeal to me
would not be in my interest	would not appeal to me at all

2 To believe that every day will be better than the day before, even if difficulties arise:

would be in my interest	would appeal to me
would be slightly in my interest	would slightly appeal to me
would not be that much in my interest	would have little appeal to me
would not be in my interest	would not appeal to me at all

3 To decide not to nurse thoughts of revenge on people who hurt me, even if it is painful to me to forgive them:

would be in my interest	would appeal to me
would be slightly in my interest	would slightly appeal to me
would not be that much in my interest	would have little appeal to me
would not be in my interest	would not appeal to me at all

4 Not to win by all means, fair or foul, even though there is only a place in the world for winners:

would be in my interest	would appeal to me
would be slightly in my interest	would slightly appeal to me
would not be that much in my interest	would have little appeal to me
would not be in my interest	would not appeal to me at all

5 To believe that the adversities I have to cope with in my partnerships will make me better able to cope with future problems, even though adversities might make me feel worn down:

would be in my interest	would appeal to me
would be slightly in my interest	would slightly appeal to me
would not be that much in my interest	would have little appeal to me
would not be in my interest	would not appeal to me at all

6 To try to build relationships, even though they may not last for long:

would be in my interest	would appeal to me
would be slightly in my interest	would slightly appeal to me
would not be that much in my interest	would have little appeal to me
would not be in my interest	would not appeal to me at all

7 To try to become attractive by developing the attributes I have, even though they are not the ones I would have preferred:

would be in my interest	would appeal to me
would be slightly in my interest	would slightly appeal to me
would not be that much in my interest	would have little appeal to me
would not be in my interest	would not appeal to me at all

8 To put myself out to help people, even though some of them might turn out to be ungrateful:

would be in my interest	would appeal to me
would be slightly in my interest	would slightly appeal to me
would not be that much in my interest	would have little appeal to me
would not be in my interest	would not appeal to me at all

9 To believe that I will always find ways to cope with difficulties, regardless of whether I have coped in the past:

would be in my interest	would appeal to me
would be slightly in my interest	would slightly appeal to me
would not be that much in my interest	would have little appeal to me
would not be in my interest	would not appeal to me at all

10 To try to accomplish my tasks, even when a great effort is required:

would be in my interest	would appeal to me
would be slightly in my interest	would slightly appeal to me
would not be that much in my interest	would have little appeal to me
would not be in my interest	would not appeal to me at all

11 To love people, even though some of them cannot love me in the way that I would like:

would be in my interest	would appeal to me
would be slightly in my interest	would slightly appeal to me
would not be that much in my interest	would have little appeal to me
would not be in my interest	would not appeal to me at all

12 To strive for the cause of justice, in a world where injustice predominates:

would be in my interest	would appeal to me
would be slightly in my interest	would slightly appeal to me
would not be that much in my interest	would have little appeal to me
would not be in my interest	would not appeal to me at all

13 To look forward to the hidden blessings in my partnerships, even if they didn't treat me well:

would be in my interest	would appeal to me
would be slightly in my interest	would slightly appeal to me
would not be that much in my interest	would have little appeal to me
would not be in my interest	would not appeal to me at all

14 To live an ordinary life, but without any passion or suspense:

would be in my interest	would appeal to me
would be slightly in my interest	would slightly appeal to me
would not be that much in my interest	would have little appeal to me
would not be in my interest	would not appeal to me at all

15 To strive towards goals, even if the outcome is uncertain:

would be in my interest	would appeal to me
would be slightly in my interest	would slightly appeal to me
would not be that much in my interest	would have little appeal to me
would not be in my interest	would not appeal to me at all

- 16 To devote time to striving towards goals, with no immediate benefit:
- |                                       |                                |
|---------------------------------------|--------------------------------|
| would be in my interest               | would appeal to me             |
| would be slightly in my interest      | would slightly appeal to me    |
| would not be that much in my interest | would have little appeal to me |
| would not be in my interest           | would not appeal to me at all  |
- 17 To believe that there will always be glimpses of contentment, even under the most inauspicious circumstances:
- |                                       |                                |
|---------------------------------------|--------------------------------|
| would be in my interest               | would appeal to me             |
| would be slightly in my interest      | would slightly appeal to me    |
| would not be that much in my interest | would have little appeal to me |
| would not be in my interest           | would not appeal to me at all  |
- 18 To try to accumulate resources to be enjoyed by sharing them with the ones I love, even though I might find myself isolated:
- |                                       |                                |
|---------------------------------------|--------------------------------|
| would be in my interest               | would appeal to me             |
| would be slightly in my interest      | would slightly appeal to me    |
| would not be that much in my interest | would have little appeal to me |
| would not be in my interest           | would not appeal to me at all  |
- 19 To contribute to the common good, even though other people might not care as much about me as I would like:
- |                                       |                                |
|---------------------------------------|--------------------------------|
| would be in my interest               | would appeal to me             |
| would be slightly in my interest      | would slightly appeal to me    |
| would not be that much in my interest | would have little appeal to me |
| would not be in my interest           | would not appeal to me at all  |
- 20 To exercise constantly to remain fit and healthy, even though time wears down the body:
- |                                       |                                |
|---------------------------------------|--------------------------------|
| would be in my interest               | would appeal to me             |
| would be slightly in my interest      | would slightly appeal to me    |
| would not be that much in my interest | would have little appeal to me |
| would not be in my interest           | would not appeal to me at all  |
- 21 To put myself out to give joy to all people around me, including those who are likely to displease me:
- |                                       |                                |
|---------------------------------------|--------------------------------|
| would be in my interest               | would appeal to me             |
| would be slightly in my interest      | would slightly appeal to me    |
| would not be that much in my interest | would have little appeal to me |
| would not be in my interest           | would not appeal to me at all  |
- 22 To hold on to a belief in the power of good, even though some others may take advantage of me because of that belief:
- |                                       |                                |
|---------------------------------------|--------------------------------|
| would be in my interest               | would appeal to me             |
| would be slightly in my interest      | would slightly appeal to me    |
| would not be that much in my interest | would have little appeal to me |
| would not be in my interest           | would not appeal to me at all  |
- 23 To dare to have aspirations about my loved one, even though they may prove to be unrealisable:
- |                                       |                                |
|---------------------------------------|--------------------------------|
| would be in my interest               | would appeal to me             |
| would be slightly in my interest      | would slightly appeal to me    |
| would not be that much in my interest | would have little appeal to me |
| would not be in my interest           | would not appeal to me at all  |
- 24 To strive towards a goal, even if solely for the satisfaction of the effort:
- |                                       |                                |
|---------------------------------------|--------------------------------|
| would be in my interest               | would appeal to me             |
| would be slightly in my interest      | would slightly appeal to me    |
| would not be that much in my interest | would have little appeal to me |
| would not be in my interest           | would not appeal to me at all  |

Date:

