Burnout in early course psychosis caregivers: the role of illness beliefs and coping styles

Juliana Onwumere [1]

Gursharan Lotey [2]

Joerg Schulz [3]

Gareth James [4]

Roya Afsharzadegan [5]

Raythe Harvey [6]

Lai Chu Man [6]

Elizabeth Kuipers [1,7]

David Raune [6]

[1] Institute of Psychiatry, Psychology and Neuroscience, King's College London

[2] University of Surrey

[3] University of Hertfordshire

[4] University College London

[5] University of East London

[6] Central and North West London NHS Foundation Trust

[7] In affiliation with the Biomedical Research Centre at the South London and Maudsley NHS Foundation Trust, Institute of Psychiatry, Psychology and Neuroscience

King's College, London, United Kingdom

*Address correspondence to: Dr Juliana Onwumere
                         Box PO77
                         Department of Psychology
                         Institute of Psychiatry, Psychology and Neuroscience at King's College London
                         SE5 8AF
                         Email: juliana.1.onwumere@kcl.ac.uk

Tel: 44207 848 0197

Fax: 44207 848 5006

Abstract: 233

Words: 3000

Short running title: Early course psychosis carer burnout (36 characters)

Key words: psychosis, early intervention, carers, burnout

ABSTRACT

Background: In occupational settings, burnout is a common response to chronic exposure stressors and has been frequently documented in formal caregivers (i.e. paid psychiatric staff). However, the literature is limited on reports of burnout amongst informal caregivers and particularly within early psychosis groups. The current study sought to investigate reports of burnout in carers of young adults treated within a specialist early psychosis service and links with key appraisals reported about the illness and coping.

Methods: Seventy-two carers completed the Maslach Burnout Inventory [1] along with self-report measures of coping styles and illness beliefs.

Results: 78% of carers reported high burnout in at least one of the three key burnout markers (i.e. emotional exhaustion, depersonalisation or low personal accomplishment). Seven percent of carers met full criteria for high burnout across all the three domains. A carer's belief about the negative consequences of the illness for themselves was a significant predictor of emotional exhaustion and depersonalisation. Low personal accomplishment was linked to a carer's less optimistic beliefs about the illness timeline and fewer reports of adaptive coping.

Conclusions: The results provide preliminary support for the importance of asking carers in the early illness phase about their experiences of caregiving. Targeted assessment may serve as a helpful tool to identify and intervene with carers in need of additional support with stress management, use of adaptive coping strategies, and balanced recovery focused information about psychosis.

INTRODUCTION

Schizophrenia is globally recognised as a burdensome condition.[2] The first onset typically falls during late adolescence or early adulthood when individuals commonly negotiate key developmental milestones.[3, 4] The duration of untreated psychosis, before an individual accesses optimal recommended treatments, can often be long with some studies reporting upper ranges of 46 months.[5] The early psychosis phase can be characterised by elevated levels of trauma;[6, 7] loss;[8] aggression;[9] self-harm including suicide,[10] and relapse.[11]

Many individuals with psychosis will live with or maintain regular contact with informal carers;[12] a picture that is particularly evident during the early illness phase.[13] Patient outcomes can be improved with carer support. Carers play a key role in facilitating help seeking at the first episode, mobilising appropriate service responses [5, 14] and facilitating service engagement.[15]

Caregiving experiences

The caregiving role can be stressful and impact negatively on wellbeing.[16] Carers of people with psychosis experience elevated levels of stress[17, 18] which can be enduring.[19] The first episode can be particularly stressful relative to other illness phases.[20] Carers can experience clinical levels of depression[21] which is also present at first episode.[22]

Caregiving and burnout

In recent years there has been an increased focus on the experience of burnout in mental health staff. Burnout has been operationalised in several ways including reference to a persistent negative work related state of mind characterised by emotional exhaustion, dysfunctional attitudes and behaviours, and reduced effectiveness and motivation.[23]

Positive associations exist between reports of staff burnout and indices of poorer wellbeing (e.g. poor sleep), reduced productivity, negative attitudes towards patients, and recruitment and retention difficulties.[24-26] Recently, this research has been extended to informal carers. Carers can report burnout, and at levels similar to those reported by psychiatric nurses, particularly in areas of emotional exhaustion and depersonalisation.[27] Cuijpers and Stam [28] found that carers of patients with psychiatric problems, for whom most had psychosis, reported high levels of burnout in terms of emotional exhaustion. Carers of patients with longer illness histories reported greater emotional exhaustion. However, the relevance of burnout to early psychosis caregivers remains unclear.

Coping efforts characterised by carers engaging in less adaptive coping styles, such as avoidance, are linked to poorer carer outcomes in psychosis, including higher rates of distress [29, 30]. Burnout has also been positively linked to less adaptive coping strategies in paid mental health staff.[1, 31] Further, carers' appraisals of not feeling able to cope have been positively associated with emotional exhaustion.[28]

The importance of carer appraisals in influencing carer outcomes is embedded in cognitive models of caregiving.[32] Carer appraisals, including those expressed about the patient, illness and coping capabilities, play an important role in carer functioning and wellbeing, independently of patient symptomatology. Carers, for example, who appraise the illness more negatively in terms of the perceived timeline and the impact on themselves and the patient, are also more likely to report greater caregiver burden and stress.[33-35]

Current study

In the context of the cognitive model of caregiving in psychosis,[32] the current study set out to document rates of burnout within an early psychosis carer sample and determine whether carer appraisals, specifically those reported about the illness and coping, relate to carer reports of burnout. In line with the literature, we predicted that reports of carer burnout would be positively linked to less adaptive coping styles, characterised by avoidance, and pessimistic beliefs about the illness in terms of the perceived consequences, timeline and amenability to control.

METHOD

Design

This was a cross-sectional design. Participants were the identified carers of patients under the care of an Early Intervention in Psychosis Service in the Central and North West London NHS Foundation Trust.   The service accepts cases of first episode psychosis, aged 14-34 years, with duration of untreated psychosis of less than 12 months. All patients with an identifiable carer were eligible for study inclusion. The results are based on routine service data collected on carer needs, following their relative's entry to the service, and where carers provided consent for data to be published. The collection of routine service data and publication met criteria laid out within research and development standards of the NHS Trust.

Measures

Carers

Socio-demographic data were collected on carers including age and employment status.

Maslach Burnout Inventory-Human Services Survey (MBI) [1]

The MBI is a 22-item, measure of burnout across three domains: emotional exhaustion (i.e. feeling drained and overextended in work), depersonalisation (i.e. negative attitudes and responses to care recipient), and personal accomplishment (feeling incompetent, inadequate and ineffective in role). The measure requires respondents to read through statements about personal feelings and attitudes towards their caregiving (e.g. I feel like I am at end of my rope) and rate the frequency on a 7-point scale ranging from '*never'* to '*everyday'*. Individual subscale scores are calculated. Higher mean scores for emotional exhaustion (>21) and depersonalisation (>8), and lower mean scores for personal accomplishment (<28) are indicative of higher burnout. The measure has been previously used with informal carer samples. [28]

COPE Inventory (COPE) [36]

The COPE is a 30-item multidimensional coping instrument designed to assess fifteen conceptually distinct methods of adaptive (e.g. active coping) and less adaptive coping (e.g. denial). Respondents rate how much they complete each of the coping behaviours using a 4 point Likert scale ranging from 1 (*I have never done this*) to 4 (*I have done this a lot*). Each of the 15 scales has 2 items; scale total scores are computed by adding the items together. Mean scores are calculated for each subscale.

Illness Perception Questionnaire for Schizophrenia: Relatives Version (IPQS-RV)[34]

The IPQS-RV assesses a carer's beliefs about their relative's illness across different domains including the perceived timeline, illness consequences (for self and relative), and degree of control over the illness (from self, relative, treatment). Items are rated on a Likert scale ranging from 1 *(strongly disagree)* to 5 *(strongly agree)*. Higher subscale scores indicate greater perceived negative illness consequences, longer illness timeline and greater optimism about illness control.

Hospital Anxiety and Depression Scale[37]

The Hospital Anxiety and Depression Scale is a 14 item self-report measure designed to assess levels of clinical distress. Items are rated on a four point scale that reflects the participants' level of agreement with each item. Scores on each subscale can range from 0-21 and scores above eight indicate clinical levels of distress. The measure has been widely used with caregiver groups and has good psychometric data.[38]

Patients

Clinical and demographic data were collected from case notes including age, gender, ethnicity, diagnosis and length of illness, which was calculated from the emergence of first psychosis symptoms.

Procedure

Data were collected by graduate level psychology assistants.

Data analysis

Data were analysed using SPSS Version 19.[39] Bivariate analyses were undertaken to determine the strength of the relationship between burnout and key variables. Based on the results of the bivariate analyses, multiple regression were undertaken to develop a prediction model for each burnout domain. No severe violations of the assumptions of multiple regression (normality, linearity, low multicollinearity) were found. Effect sizes were interpreted following Cohen[40] recommendations. Statistical testing was conducted with an alpha level of <.05 .

RESULTS

Participants:

Seventy-two carers provided consent to complete routine measures. Data were collected from July 2011 to April 2012. One carer completed the assessment but did not consent to permission to publish.

The average length of caring was 21.1 months (SD = 11.4, Range 1-47 months).The mean age of carer participants was 52.1 (SD = 10.4, Range, 18-71). Most carers were female (67%) and from Black and minority ethnic groups (47%) or white (43%). Over half the carer sample was recorded as being employed (54%). Carers were mainly the parents of patients (85%) and most were living with the patient at the time of the assessment (83%). The mean hours of face-to-face contact per week between carers and patients was 50.1 hours (SD = 35.1 Range 0-143). Twenty-two percent of carers were also providing care for another person. The total mean scores on the Hospital Anxiety and Depression Scale was 14.1 (SD=7.37, Range 0-36); one third of carers (30.9%) scored within the clinical range for depression or anxiety.

Patients

The patient sample comprised 60 patients who were mainly outpatients (92%) with a mean age of 23.4 years (SD =4.46, Range 14.0 -34.4). The average length of psychosis was 21.5 months (SD = 11.7, Range, 2-47) and more than half had a case note diagnosis of schizophrenia. Most patients were male (72%) and few were in paid employment (20%). Over half the sample was classified as Black and minority ethnic background (52%) or white (45%).

Levels of burnout and links with demographic and clinical factors

The burnout subscale mean scores were: emotional exhaustion (24.1, SD = 14.9, Range 0-54); depersonalisation (5.8, SD=5.5, Range 0-21) and personal accomplishment (32, SD=9.7, Range 7-48). 78% (n = 54) reported high burnout in at least one dimension and seven percent of carers (*n* = 5) were classified as high burnout across all scales.

Patient gender was associated with carers' reported level of both emotional exhaustion and depersonalisation. Carers who looked after a female patient had lower mean scores on emotional exhaustion (*M* = 18.4, *SD* = 15.5, *n* = 17) and depersonalisation (*M* = 3.29, *SD* = 2.85, *n* = 17) in comparison to those caring for a male patient (emotional exhaustion: *M* = 28, *SD* = 14.4, *n* = 41; depersonalisation: *M* = 7.1, *SD* = 6.1, *n* = 41). A Mann-Whitney U Test confirmed both mean differences to be statistically significant (*p* = .04 and *p* = .03 respectively), and the corresponding effect sizes for these mean differences were moderate to strong (Cohen's *d* = .65 and *d* = .81 respectively). No further carer or patient demographic factors were significantly related to burnout scales (*P* >.05).

Burnout and coping styles

Small negative correlations were observed between depersonalisation and: planning (-.26, P = 0.03); emotional support (-27, P = 0.03), and positive reinterpretation and growth (-28, P = 0.02). Depersonalisation was positively correlated with denial (.26, P = 0.03).

Personal accomplishment was positively correlated with active coping (.31, P < .01), positive reinterpretation and growth (.34, p < 0.01), and turning-to-religion (.42, P < 0.01)

No relationships were observed between emotional exhaustion and carer coping (P >.05).

Burnout and illness beliefs

There were positive correlations between emotional exhaustion and carer negative perceptions of illness consequences for themselves (.60, P <.01) and the patient (.44, p <.01). There was also a positive association between depersonalisation and illness consequences for the carer (.44, P <.01). Carer perceptions of a chronic illness timeline and personal accomplishment were negatively related (-.38, P <.01).

Multivariate analyses

Emotional exhaustion

Multiple regression analyses were completed to assess how much variance in emotional exhaustion could be explained by independent variables of illness beliefs (i.e. consequences for patient and carer) and patient gender. Patient gender was transformed into a dummy coded variable with males as the reference group coded 0. The three independent variables explained a significant amount of the variance in emotional exhaustion, $F(3,53) = 13.4$, p < .001, adj-R^2 = 40%. Perceived consequences for the patient was an insignificant predictor

and removed from the model, *F*-change (1, 53) = .98, *p* = .33. The results of the final model are presented in Table 1 revealing that perceived consequences for the carer was a strong predictor of emotional exhaustion (*beta* = .58) whereas patient gender reached just borderline significance suggesting that carers for female patients felt generally less emotionally exhausted by a modest amount (*beta* = -.20) when controlled for by their perceived illness consequences. (Table 1).

Depersonalisation

The independent variables selected to predict the variance in depersonalisation scores were: patient gender, coping (i.e. planning, emotional support, positive interpretation & growth, denial), and illness consequences for carer. The model explained 23% (Adj R^2) of the variance, $F(6,50)$ = 3.78 , *p* < .003, but several predictors in the model were insignificant (*p* > .10) and therefore removed one at a time using a backward selection algorithm. After excluding 3 predictors (i.e. emotional support, positive interpretation & growth, denial) the final model explained 26% (Adj R^2) of the variance, $F(3, 53)$ = 7.53 , *p* < .001. Perceived consequences for carer and planning were both predictors of depersonalisation. (Table 2).

Personal accomplishment

The predictors entered were coping (i.e. active coping, turning to religion, positive reinterpretation and growth) and illness timeline. The four predictors explained 29% (Adj R^2) of variance in personal accomplishment scores, $F(4, 64)$ = 7.79 , *p* < .001; coping via religion was not a significant predictor and removed from the model, *F*-change (1, 64) = 2.35, *p* = .13. Table 3 displays the results for the final model with three predictors. Belief about illness timeline was the strongest predictor (*beta* = -.36). The remaining two coping predictors had a moderate influence on personal accomplishment in the expected direction. (Table 3)

Insert Tables 1-3 here

DISCUSSION

This study investigated reports of burnout in caregivers of patients accessing an early intervention psychosis service, and examined its relationship to carer appraisals about the illness and coping. To our knowledge, this represents the first study of its kind to investigate burnout in recent onset carers and its links to carer appraisals.

Burnout, as measured by dimensions of emotional exhaustion, depersonalisation, and low personal accomplishment was, as predicted, reported by carers of recent onset patients. Whilst a small proportion of the sample (7%) were defined as having high overall burnout – in terms of scoring high emotional exhaustion and depersonalisation, and low personal accomplishment -78% reported high burnout in at least one key dimension. The finding that carers can report features of burnout even during the early phases of the psychosis illness attest to the reported challenges of the caregiving role, and concurs with the evidence drawn from early career psychiatric staff where evidence of burnout was already present.[41] We already know of the elevated levels of distress and depression that can be found in early psychosis caregivers.[20] We also know that the period before formal services are involved can be protracted for many first episode patients. Thus, carers may have been undertaking a caregiving role for some time and therefore increased the risk for it to impact on their wellbeing. It is worth noting that 22% of the sample failed to report any burnout; further investigations of what factors protect against less adaptive functioning in carers during the early illness phases are indicated.

In terms of explaining the variance in emotional exhaustion, patient gender and carers' negative perceptions of illness related consequences for themselves were identified as important predictors, but a carer's negative appraisal of the impact of the illness for themselves was more relevant accounting on its own for 33% of the variance. The results are consistent with previous literature that has identified links between carers' perceived negative consequences of the illness and carers' negative appraisals of their caregiving experiences.[33] Carer outcomes, such as burden and expressed emotion, relate more to carers' cognitive appraisals than the event itself.[32, 42]

Carer beliefs about illness consequences for themselves also proved to be a key predictor for depersonalisation; slightly stronger in its effect size than the other key predictors (i.e. planning coping styles). Carers reporting more negative attitudes towards their relative (i.e. depersonalisation) are also seemingly more negatively affected by the impact of the illness on different aspects of their lives (e.g. financial concerns). A carer's negative appraisal of the consequences of the illness for themselves may make it difficult to simultaneously report positive beliefs about the patient, who might be a constant reminder of the perceived negative impact of the illness on the carer's life.

Nearly one third of the variance in personal accomplishment scores was explained by optimistic beliefs about the timeline of the illness (i.e. believing it to be an acute rather than chronic condition) and active and positive reappraisal coping efforts. It would seem important that for early phase carers to report a sense of accomplishment in their role, optimism about how long the illness will last alongside active coping styles and skills in positive reappraisal are important.

Limitations

The study had some limitations. The cross-sectional design limits conclusions about causal processes and directionality of the findings. Whilst it seems plausible to argue that the predictors we investigated are psychological antecedents of experiences of burnout, it is possible that burnout experiences amplify or provoke pessimistic illness beliefs and less adaptive coping. A prospective design, involving multiple time point analysis, would be a helpful consideration for future research to disentangle the causal processes. Further studies are required to understand the current levels of high burnout found in the sample relative to other carer populations. Two previous studies have measured burnout in caregivers, but overall rates of high burnout were not reported and precluded comparisons.[27, 28]

Clinical implications

Over three quarters of the sample reported high burnout in at least one of the three burnout dimensions. Burnout is likely to render a carer at greater risk of poor role functioning. Routine assessment of caregivers for reports of burnout during the early phase could be helpful for triaging needs and offering targeted interventions.

The current pattern of results highlighted an important role in carer burnout for illness specific appraisals, particularly those related to perceived negative consequences of the illness for the carer and the long term nature of the condition, and coping styles. Interventions designed to help early psychosis carers to develop a more balanced appraisal of the illness and strategies to promote problem focused coping and therapeutic optimism could be of benefit. This approach would be consistent with recent treatment guidance,[43] educational and supportive initiatives for first episode carers,[44] and a developing evidence base on carer outcomes in psychosis.[45]

CONCLUSIONS

Carer involvement can be important for optimising patient outcomes in psychosis. However, the role, for many, can be highly stressful. Improving our understanding of the type and range of reactions caregivers can report in their role, even during the early illness phase, should remain a key component in our attempt to provide tailored, needs led interventions to carers.

REFERENCES

1.   Maslach CJ, Jackson SE, Leiter, MP. Maslach Burnout Inventory Manual. Palo Alto. CA: Consulting Psychologists Press, 1996.

2.   Whiteford HA, Degenhardt L, Rehm J, Baxter AJ, Ferrari AJ, Erskine HE, Charlson FJ, Norman RE, Flaxman AD, Johns A, Burstein R, Murray CJL, Vos, T. Global burden of disease attributab le to mental and subtance use disorders: findings from the Global Burden of Disease Study 2010. The Lancet. 2013; 382: 12.

3.   Stefan M TM, Murray, RM. An Atlas of Schizophrenia. London: The Partenon Publishing Group; 2002.

4.   van Os J, Kapur S. Schizophrenia. The Lancet. 2009; 374: 635-45.

5.   Fridgen GJ, Aston J, Gschwandtner U, et al. Help-seeking and pathways to care in the early stages of psychosis. Soc Psychiatry Psychiatr Epidemiol. 2013; 48: 1033-43.

6.   Bendall S, Alvarez-Jimenez M, Hulbert CA, McGorry PD, Jackson HJ. Childhood trauma increases the risk of post-traumatic stress disorder in response to first-episode psychosis. Aust N Z J Psychiatry. 2012; 46: 35-9.

7.   Wang Z, Xue Z, Pu W, et al. Comparison of first-episode and chronic patients diagnosed with schizophrenia: symptoms and childhood trauma. Early Interv Psychiatry 2013; 7: 23-30.

8.   Dunkley J, Bates, G, Findlay, B. Understanding the trauma of first-episode psychosis. Early Intervention in Psychiatry 2013.

9.   Winsper C, Singh SP, Marwaha S, et al. Pathways to Violent Behavior During First-Episode Psychosis A Report From the UK National EDEN Study. JAMA psychiatry 2013; 70: 1287-93.

10.   Robinson J, Harris MG, Harrigan SM, Henry LP, Farrelly S, Prosser, A, Schwartz O, Jackson H, McGorry PD. Suicide attempt in first-episode psychosis: A 7.4 year follow-up study. Schizophrenia Research 2010; 116: 1-8.

11.   Robinson D, Woerner MG, Alvir JM, et al. Predictors of relapse following response from a first episode of schizophrenia or schizoaffective disorder. Arch Gen Psychiatry 1999; 56: 241-7.

12.   Parabiaghi A, Lasalvia A, Bonetto C, et al. Predictors of changes in caregiving burden in people with schizophrenia: a 3-year follow-up study in a community mental health service. Acta Psychiatr Scand Suppl 2007: 66-76.

13.   Garety PA, Kuipers E, Fowler D, Freeman D, Bebbington PE. A cognitive model of the positive symptoms of psychosis. Psychol Med 2001; 31: 189-95.

14.   Morgan C, Abdul-Al R, Lappin JM, et al. Clinical and social determinants of duration of untreated psychosis in the AESOP first-episode psychosis study. Br J Psychiatry 2006; 189: 446-52.

15.   Doyle R, Turner N, Fanning F, et al. First-episode psychosis and disengagement from treatment: a systematic review. Psychiatr Serv 2014; 65: 603-11.

16.   Smith L, Onwumere, J, Craig, T, McManus, S, Bebbington, P, Kuipers, E, Onwumere, J, Craig, T, McManus, S, Bebbington, P. Mental and physical illness in caregivers: results from an English national survey sample 2007. British Journal of Psychiatry 2014; 205.

17.   Petrakis M, Oxley, J, Bloom, H. Carer psychoeducation in first-episode psychosis: evaluation outcomes from a structured group programme. Int J Soc Psychiatry 2013; 59: 391-7.

18.   Tomlinson E, Onwumere J, Kuipers E. Distress and negative experiences of the caregiving relationship in early psychosis: does social cognition play a role? Early Interv Psychiatry 2013.

19.   Brown S, Birtwistle J. People with schizophrenia and their families. Fifteen-year outcome. Br J Psychiatry 1998; 173: 139-44.

20.   Addington J, Coldham EL, Jones B, Ko T, Addington D. The first episode of psychosis: the experience of relatives. Acta Psychiatr Scand 2003; 108: 285-9.

21.   Dyck DG, Short R, Vitaliano PP. Predictors of burden and infectious illness in schizophrenia caregivers. Psychosom Med 1999; 61: 411-9.

22.   Kuipers E, Raune, D. The early development of expressed emotion and burden in the families of first onset psychosis. Chichester: Wiley; 2000.

23.   Schaufeli WBE, D. The Burnout Companion to Study and Research: A Critical Analysis. London: Taylor & Francis; 1998.

24.   Holmqvist R, Jeanneau M. Burnout and psychiatric staff's feelings towards patients. Psychiatry Res 2006; 145: 207-13.

25.   Butterworth TC, Jeacock J, White E & Clements A. Stress, coping burnout and job satisfaction in British nurses; Findings from the Clinical Supervision Evaluation Project. Stress Med 1999; 15: 27-33.

26.   Weinberg A, Creed F. Stress and psychiatric disorder in healthcare professionals and hospital staff. The Lancet 2000; 355: 533-7.

27.   Angermeyer MC, Bull N, Bernert S, Dietrich S, Kopf A. Burnout of caregivers: A comparison between partners of psychiatric patients and nurses. Archives of Psychiatric Nursing 2006; 20: 158-65.

28.   Cuijpers P, Stam H. Burnout among relatives of psychiatric patients attending psychoeducational support groups. Psychiatric Services 2000; 51: 375-9.

29.   Onwumere J, Kuipers E, Bebbington P, et al. Coping styles in carers of people with recent and long-term psychosis. J Nerv Ment Dis. 2011; 199: 423-4.

30.   Cotton SM, McCann TV, Gleeson JF, Crisp K, Murphy BP, Lubman DI. Coping strategies in carers of young people with a first episode of psychosis. Schizophr Res 2013; 146: 118-24.

31.   Thornton PI. The relation of coping, appraisal, and burnout in mental health workers. J Psychol 1992; 126: 261-71.

32.   Kuipers E, Onwumere J, Bebbington P. A cognitive model of caregiving in psychosis. The British Journal of Psychiatry 2010; 196: 259-65.

33.   Onwumere J, Kuipers E, Bebbington P, et al. Caregiving and illness beliefs in the course of psychotic illness. Can J Psychiatry 2008; 53: 460-8.

34.   Lobban F, Barrowclough C, Jones S. Assessing cognitive representations of mental health problems. II. The illness perception questionnaire for schizophrenia: Relatives' version. Br J Clin Psychol 2005; 44: 163-79.

35.   Fortune G, Barrowclough C, Lobban F. Illness representations in depression. Br J Clin Psychol 2004; 43: 347-64.

36.   Carver CS, Scheier MF, Weintraub JK. Assessing coping strategies: a theoretically based approach. J Pers Soc Psychol 1989; 56: 267-83.

37.   Zigmond AS, Snaith RP. The hospital anxiety and depression scale. Acta Psychiatr Scand 1983; 67: 361-70.

38.   Fortune DG, Smith JV, Garvey K. Perceptions of psychosis, coping, appraisals, and psychological distress in the relatives of patients with schizophrenia: an exploration using self-regulation theory. Br J Clin Psychol 2005; 44: 319-31.

39.   Corp I. IBM SPSS Statistics for Windows, Version 19.0. Armonk, NY: IBM Corp; Released 2010.

40.   Cohen J. A power primer. Psychological Bulletin 1992; 112: 155-9.

41.   Volpe U, Luciano M, Palumbo C, Sampogna G, Vecchio V, Fiorillo A. Risk of burnout among early career mental health professionals. Journal of Psychiatric and Mental Health Nursing 2014.

42.   Raune D, Kuipers E, Bebbington P. EE at first episode psychosis: investigating a carer appraisal model. British Journal of Psychiatry 2004; 184: 321-6.

43.   National Institute for Health and Care Excellence. Psychosis and schizophrenia: treatment and management: National Institute for Health and Care Excellence; 2014.

44.   Lobban F, Glentworth D, Chapman L, et al. Feasibility of a supported self-management intervention for relatives of people with recent-onset psychosis: REACT study. Br J Psychiatry 2013; 203: 366-72.

45.   Lobban F, Postlethwaite A, Glentworth D, et al. A systematic review of randomised controlled trials of interventions reporting outcomes for relatives of people with psychosis. Clin Psychol Rev 2013; 33: 372-82.

TABLE 1: Multiple regression predicting emotional exhaustion

Model	Predictors	β (beta)	*t*	*p*
	Consequences for relative (carer)	.58	5.53	.01
Adj.-R^2 = .40	Patients gender (female)	-.20	-1.89	.06

TABLE 2: Multiple regression predicting depersonalisation

Model	Predictors	β (beta)	*t*	*p*
	Consequences for relative (carer)	.33	2.83	.007
Adj.-R^2 = .26	Planning	-.28	-2.39	.02
	Patients gender (female)	-.21	-1.77	.08

TABLE 3: Multiple regression predicting personal accomplishment

Model	Predictors	β (beta)	*t*	*p*
	Timeline: acute/chronic	-.36	-3.48	.001
Adj.-R^2 = .27	Positive re-interpretation and growth	.25	2.34	.02
	Active coping	.27	2.55	.01