



Review article

Sense of coherence, burden and mental health in caregiving: A systematic review and meta-analysis

Rafael del-Pino-Casado^{a,*}, Aída Espinosa-Medina^a, Catalina López-Martínez^a, Vasiliki Orgeta^b^a Department of Nursing, University of Jaén, Spain^b Division of Psychiatry, University College London, United Kingdom

ARTICLE INFO

Keywords:

Sense of coherence
 Caregiver burden
 Mental health
 Depression
 Anxiety

ABSTRACT

Background: Informal caregiving is associated with a number of negative effects on carers' physical and psychological well-being. The salutogenic theory argues that sense of coherence (SOC) is an important factor in psychological adjustment to stress. The main aim of this study was to systematically review current evidence on the association between SOC, burden and mental health outcomes in informal carers.

Method: A systematic search was carried out up to September 2017 in the following databases: PubMed, CINAHL (EBSCO), PsychInfo (OVID) and Scopus. Studies were included if they evaluated the relationship between sense of coherence and subjective caregiver burden and/or mental health outcomes, specifically symptoms of depression and anxiety. Meta-analyses were performed and subgroup analyses were carried out to explore if methodological factors influenced findings.

Results: Thirty-five studies were included in the meta-analysis, which provided 40 independent samples with 22 independent comparisons for subjective caregiver burden, 26 for symptoms of depression and 7 for symptoms of anxiety. Higher levels of SOC were associated with lower levels of subjective caregiver burden and better mental health outcomes. Publication bias did not change the estimate of the effect.

Limitations: Most of the studies included in this review were cross-sectional.

Conclusions: Findings suggest that SOC is an important determinant of carer well-being and may protect carers from high levels of psychological distress and caregiver burden.

1. Introduction

Increasing life expectancy and current trends in population aging is leading to higher levels of dependency for older people through a rise of disabilities leading to increases in care and resources to meet care demands (OECD, 2013). Most of this care is delivered by unpaid carers generally women, referred to in the literature as informal carers (Del-Pino-Casado et al., 2011). Caring for a dependent person has negative effects on carers' physical and psychological health, and is associated with high levels of subjective burden, posing carers at increased risk of experiencing clinically significant symptoms of depression and anxiety (Cooper et al., 2007; van der Lee et al., 2014).

Subjective burden is a state characterised by fatigue, stress, and difficulties adjusting to the caregiving role. This state stems from a negative appraisal of the caregiving situation that can threaten the physical, psychological, and emotional health of carers (Kim et al., 2012; Zarit et al., 1980). Experiencing carer burden is often associated with outcomes such as anxiety and depression (Cooper et al., 2007).

Anxiety includes feelings of worry and fear, and physical symptoms such as muscular tension and somatic symptoms whereas depressive symptoms are characterised by sad mood, loss of interest or joy in daily activities, fatigue, and excessive feelings of guilt and worthlessness (American Psychiatric Association, 2013; Goldberg et al., 1988).

Systematic reviews have shown prevalence rates of depression and anxiety of 40.2% and 21.4% (respectively) for stroke carers (Loh et al., 2017), and at 34.0% and 43.6 for carers of people living with dementia (Sallim et al., 2015). Studying the psychological determinants of caregiver burden and well-being is important for developing interventions to support carers and prevent psychological distress (Livingston et al., 2014).

High levels of sense of coherence (SOC) may protect individuals from stress and are associated with a reduced risk for various health problems (Jaracz et al., 2012). SOC comprises elements of comprehensibility (cognitive), manageability (instrumental) and meaningfulness (motivational) (Antonovsky, 1993), and refer to one's ability to understand a particular situation and use available resources

* Corresponding author.

E-mail address: rdelpino@ujaen.es (R. del-Pino-Casado).<https://doi.org/10.1016/j.jad.2018.08.002>

Received 12 December 2017; Received in revised form 17 May 2018; Accepted 1 August 2018

Available online 09 August 2018

0165-0327/ © 2018 Elsevier B.V. All rights reserved.

effectively (material, psychological and social) allowing the individual to make use of adaptive coping strategies (Eriksson and Lindstrom, 2007). As a result, individuals who endorse high levels of SOC view the world and their environment as more comprehensive, manageable, and meaningful (Lindstrom and Eriksson, 2005). SOC develops in young adulthood (Välimäki et al., 2009), as a result of learning rather than heredity (Kuroda et al., 2007), and although is considered to remain relatively stable across the life span, studies show that it increases with age (Lindstrom and Eriksson, 2005).

There are currently no systematic reviews of the literature quantifying the association of SOC with caregiver burden and mental health outcomes. The review by Zauszniewski et al., (2015) was narrative; focusing on carers of adults with serious mental illness, and therefore did not include all caregiving groups. A further review by (Rigby et al., 2009) included studies on carers of stroke survivors and did not include a meta-analysis. In this review we aimed to extend the available evidence base on SOC, caregiver burden and mental health outcomes across all caregiving groups; a secondary aim was to estimate the size of the association and report on the quality of the evidence.

2. Method

We searched major healthcare databases: PubMed, CINAHL (EBSCO), PsychInfo (OVID) and Scopus, up until September 2017. We followed the MOOSE (Stroup et al., 2000) and PRISMA statements (Moher et al., 2009), when reporting findings of this review. Our search included the following terms: caregiver (or carer), sense of coherence, salutogenesis, and Antonovsky, with no additional filters used. We consulted relevant authors for obtaining grey literature and unpublished studies, and searched the reference lists of all relevant publications and reviews.

2.1. Inclusion criteria

For individual studies, the following inclusion criteria were used: (1) original articles (2) reporting on the statistical association of SOC and subjective burden, depressive and/or anxiety symptoms (3) those that reported a correlation coefficient, and (4) included samples of informal carers (family, friends, community members or volunteers). Two independent reviewers (RdPC and AEM) selected studies with disagreements resolved by consensus.

2.2. Data extraction and synthesis

Two independent reviewers (RdPC and AEM) extracted the population characteristics and effect estimates of each study using a standardised data extraction form. Disagreements were resolved by consensus. The effect measure used to compute pooled estimates was the correlation coefficient. In repeated measures studies were correlations referred to the same time point, only the first correlation was selected in order to guarantee independence of comparisons (Higgins and Green, 2008). For computing correlation coefficients, we used the correction for reliability (internal consistency) following the formula proposed by Hunter and Schmidt: $\frac{r}{\sqrt{\alpha_x} \times \sqrt{\alpha_y}}$, r being the correlation coefficient and α_x and α_y the internal consistency coefficients of the independent and dependent variable, respectively.

2.3. Quality assessment

Basing on the recommendations of Boyle (1998) and Viswanathan et al., (2013), we used the following criteria for assessing methodological quality of the individual studies: (1) representative sampling (probabilistic sampling), (2) reliability and validity of measures: content validity and internal consistency in the target or similar population, (3) control of confounding factors: at least one measure of

objective burden must be controlled for and the variation of the point estimate must be less than 15%, (4) for longitudinal studies: (4.1) follow-up of at least six months and (4.2) rate of follow-up of at least 80% of the original population taking part. Two reviewers (RdPC and CLM) assessed quality of included studies independently.

In regards to confounders, we decided to control for objective burden because this construct is the main determinant of subjective burden, and of symptoms of depression and anxiety (Cooper et al., 2007; van der Lee et al., 2014). Objective burden encompasses patients' needs (i.e. functional capacity, cognitive impairment and behavioural problems) and intensity of care (Aneshensel et al., 1995). Because measures of previous dimensions of objective burden are highly correlated (Pinquart and Sorensen, 2003), we controlled for at least one of these. We considered confounders being controlled in studies by taking into account those related to the design and/or analysis (i.e. matching, stratification, interaction terms, multivariate analysis, or other statistical adjustment such as instrumental variables) (Viswanathan et al., 2013). In cases of statistical adjustment, we considered no confounding bias to be present when the variation of the point estimate was less than 10% (Rothman et al., 2008).

Following the recommendations of (Meader et al., 2014), and the Grading of Recommendations Assessment, Development and Evaluation (GRADE) system (Atkins et al., 2004), inconsistency, imprecision and risk of publication bias were also evaluated. Inconsistency was evaluated through heterogeneity of findings in individual studies and imprecision through the number of included studies (large: > 10 studies, moderate: 5–10 studies and small: < 5 studies) and the median sample size (high: > 300 participants, intermediate: 100–300 participants and low: < 100 participants). Publication bias was assessed by analysing the funnel plot and statistical tests (see Analyses section).

2.4. Analyses

We used a random-effects model for estimating pooled effects and their 95% confidence intervals (CI), in order to improve generalisation of study findings (Cooper et al., 2009). The Q test was used for heterogeneity analysis, calculating the degree of inconsistency (I^2) (Higgins et al., 2002). For publication bias, we used the Begg test (Begg and Mazumdar, 1994), the Egger test (Egger et al., 1997) and the pooled effect; estimated by taking into account possible publication bias by the Trim and Fill method (Duval and Tweedie, 2000). We used several approaches to analyse publication bias in order to look for concordant results that may strengthen conclusions (Guyatt et al., 2011). Sensitivity analyses were carried out to assess the contribution of studies to the pooled estimate in each meta-analysis (leave-one-out method; (Cooper et al., 2009), and to assess whether study design or other quality parameter influenced results (sub-group analyses; (Cooper et al., 2009). Comprehensive Meta-analysis 3.3 was used for the calculations.

3. Results

A total of 447 studies were retrieved from databases and 8 studies were identified from searching references of included articles (7 studies) or contacting authors (1 unpublished study) (see Fig. 1). After removing duplicates, 231 records remained to be screened. A total of 143 records were excluded as not being relevant and 50 studies did not meet the inclusion criteria. After removing 3 duplicate articles (Gustavsson-Lilius et al., 2007; Jaracz et al., 2012; Zauszniewski et al., 2009), 35 studies remained to be screened for inclusion.

Of these 34 were published studies (Andrén and Elmståhl, 2008; Bias, 1998; Bowe, 2003; Caap-Ahlgren and Dehlin, 2002; Coe et al., 1991; Chumblor et al., 2004; Dejo Vásquez, 2007; Fan et al., 2014; Forsberg-Warley et al., 2002; Gallagher et al., 1994; Götze et al., 2015; Gustavsson-Lilius et al., 2012; Hiyoshi-Taniguchi et al., 2014; Hsiao and Tsai, 2015; Jaracz et al., 2015; Jaracz et al., 2014; Lo Sterzo and Orgeta,

Download English Version:

<https://daneshyari.com/en/article/10138190>

Download Persian Version:

<https://daneshyari.com/article/10138190>

[Daneshyari.com](https://daneshyari.com)