

## Cultural aspects of caregiver burden in psychiatric disorders

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### Abstract

Caring for a mentally ill family member is well known to be mostly a stressful, distressing and burdensome experience. The dominant model for examining the process of caregiving has been the stress-appraisal-coping paradigm, in which interactions between stressors, appraisals, coping, and various mediators produce the eventual outcomes in terms of distress or well-being among caregivers. Ethnic and cultural factors have traditionally received the least research attention as mediators of the caregiving process. However, a large body of accumulated research evidence has clearly demonstrated that culturally-defined values, norms, and roles are among the major determinants of the caregiving experience. This research is based mainly on cross-cultural comparisons between caregivers of minority ethnic groups residing in the West and the native Caucasian population. It has been supplemented, to a limited extent, by research carried out among caregivers belonging to different cultures and residing in their countries of origin. Most of this research has been carried out among caregivers of elderly people with dementia; other psychiatric disorders such as schizophrenia have received much less attention. Results of this research have documented important differences in caregiving experiences and outcomes across cultural and ethnic groups. Cultural factors which could mediate these differences have

been identified, and theories, which could provide a coherent framework to understand these differences, proposed. Though limited by methodological difficulties, this research has provided important insights into the impact of cultural and ethnic factors on the whole spectrum of the caregiving experiences. An improved understanding of the area is, nevertheless, required because it will eventually help in devising appropriate ways to reduce burden and distress among caregivers from diverse ethnic and cultural groups.

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**Key words:** Culture; Ethnicity; Caregiving; Caregiver-burden; Psychiatric disorders

**Core tip:** The cultural context shapes the entirety of the caregiving experience and its outcomes. Important differences have been identified in the extent of caregiving, caregiver burden and distress, attitudes and norms influencing caregiving, appraisal, coping, help-seeking, and social support, between caregivers belonging to diverse ethnic and cultural groups. Familial-cultural factors seem to be the principal determinants of caregiving outcomes, though they appear to influence burden and distress in complicated, and yet unclear ways. Since an understanding of the role of culture in caregiving is an essential first step towards helping lower burden among caregivers from different cultural and ethnic groups, more research is required in this area.

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### CAREGIVING AND CAREGIVER-BURDEN

Caregiving has been defined as interactions, in which one

person is helping another on a regular basis with tasks, which are necessary for independent living<sup>[1]</sup>. Anyone who provides some assistance to another who is, in some degree, incapacitated and needs help is a caregiver<sup>[2]</sup>. Normal “care” changes into “caregiving” when it is out of synchrony with the appropriate stage of the lifecycle. For family caregivers, this change takes place when the reciprocity between family members is out of balance, such that the responsibilities and tasks of one party in a relationship go beyond those customarily expected. Family caregivers are often bound by kinship obligations to adopt certain duties and responsibilities that are far in excess of those normally associated with a family role at a particular stage<sup>[3]</sup>. In doing so, they may perceive considerable distress, have a poor quality of life and experience psychological morbidity. The consequences of being related to and caregiving in chronic mental illness can, thus, be roughly divided into the obligation to offer long-term extensive care, and the emotional distress and worries related to the life-situation of the patient. Such consequences of caregiving are usually referred to as caregiver-burden or burden of care. Caregiver-burden has, thus, been defined as the “the presence of problems, difficulties or adverse events which affect the life (lives) of the psychiatric patients’ significant others (e.g., members of the household and/or the family)”<sup>[4]</sup>. Research over the last five decades or so has clearly established that having a family member with mental illness can lead to high levels of distress and burden for caregivers. Research on caregiver burden has also identified the major areas of (objective) burden, namely adverse effects on the household routine including care of children, disruption of relations within and outside the family, restriction of leisure time activities of caregivers, the strains placed on family finances and employment, the difficulties in dealing with dysfunctional and problem behaviours faced by caregivers, and the impact on mental and physical well-being of the caregivers. The prevalence of subjective psychological distress, often referred to as subjective burden, has also been found to be very high<sup>[5-15]</sup>.

Studies on caregiver-burden have also gradually moved beyond simple enumeration of the problems faced by caregivers on account of the patient’s illness, to a consideration of the caregiving experience in its totality. The dominant model for examining the process of caregiving has been the stress-appraisal-coping paradigm of Lazarus and Folkman<sup>[16]</sup>.

The “stress-appraisal-coping” theory suggests that the principal element of caregiving is an appraisal of its demands. The patient’s illness and its impact on the caregiver are the main sources of stress. Coping with this stress is determined by how it is appraised. Mediators of the process include social, demographic and cultural factors, caregiver’s personality traits, and the level of support they receive<sup>[17,18]</sup>. Thus, apart from identifying stressors, appraisal and coping as the central elements of the process of caregiving, this model also delineates certain mediators of this process. These mediators include illness variables (e.g., diagnosis, severity, duration

of illness, duration of remission, cost of treatment), the caregivers’ socio-demographic and caregiving profile (e.g., gender, education, relation with the patient, amount of time spent with patient), personality attributes (e.g., neuroticism), socio-cultural factors which influence their attitudes towards caregiving, and the degree of social support available for the caregiver. These factors can influence appraisals, as well as the coping strategies adopted by the caregiver. Interactions between stressors, appraisals, coping, and the various mediators produce the eventual outcomes in terms of distress or well-being among caregivers<sup>[8,11]</sup>.

Of all the mediators proposed by the “stress-appraisal-coping” model, ethnic and cultural factors have traditionally received the least research attention. This has changed over the last couple of decades or so with the advent of studies, which have clearly shown that culturally-defined values, norms, and roles are among the major determinants of the caregiving experience<sup>[10,11,13,19-31]</sup>.

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## CULTURE, ETHNICITY AND CAREGIVING

Several strands of research can be identified in the broad area of the effects of culture and ethnicity on caregiver burden. The predominant methodology employed has been cross-cultural comparisons between caregivers of minority ethnic groups residing in Europe and the United States, and the native Caucasian population. The minority ethnic groups that have been the principal focus of such studies have included African-Americans, Afro-Caribbean, Latino or Hispanic groups, and Asian populations including Chinese, South Korean, Japanese and Indian caregivers<sup>[10-13,19-38]</sup>. This has been supplemented, to a limited extent, by research carried out among caregivers belonging to different cultures and residing in their countries of origin such as China, South Korea or India<sup>[12,13,28,30,39-45]</sup>. The examination of ethnic and cultural differences has encompassed virtually the whole spectrum of the caregiving experience. Consequently, it has investigated differences in caregiver burden and related factors such as service utilisation, cultural factors which could mediate these differences, and propounded theories, which could provide a coherent framework to understand these differences. Most of this research has been carried out among caregivers of elderly people with dementia or the physically frail elderly. Among “functional” psychiatric illnesses, schizophrenia has been the focus of research on ethnic or cultural differences in caregiving. Though the research data on schizophrenia appears to be qualitatively similar, the amount of data is, unfortunately, nowhere near the volume of research on dementia<sup>[12,46-48]</sup>. This is one significant deficiency of research in this area, which needs to be addressed.

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## CULTURAL DIFFERENCES IN CAREGIVING

There is a large body of comparative, cross-cultural re-

search evidence, which clearly indicates that caregiving experiences vary across cultural and ethnic groups. For the most part, this research suggests that caregivers from a number of ethnic minority groups differ from their Caucasian counterparts in several respects.

Although the evidence is somewhat equivocal, there seems to be a slightly higher prevalence of caregiving among Asian-Americans, African-Americans, and Latinos, than among non-Hispanic Caucasians. Moreover, when controlling for the levels of disability, minority caregivers tend to provide more direct and informal care than do Caucasian caregivers<sup>[49]</sup>. Caucasian caregivers are most likely to provide care for a spouse; Latinos are the most likely to provide care for a parent; and African Americans are the most likely to be caring for other family members or unrelated individuals<sup>[50]</sup>. In general caregivers belonging to the ethnic groups such as African-Americans, Afro-Caribbean, Latino or Hispanic groups, and Asian communities such as the Chinese, Korean, Japanese and Indian caregivers report lower levels of caregiving stress and burden<sup>[10-13,20-31,33,47,51,52]</sup>. They are generally more tolerant of the mentally ill relative<sup>[52]</sup>. Subjective perceptions of burden appear to vary the most, while objective aspects of burden are more similar in nature<sup>[13,33,53]</sup>. This is mirrored by the finding of low levels of expressed emotions, particularly among Mexican-American and Indian families<sup>[6,12]</sup>. On the other hand, it has been shown that there is a higher level of stigma and negative conceptualisations of the illness<sup>[32,39]</sup>. This leads caregivers to try and keep the illness a secret and delay seeking treatment<sup>[31,32,34]</sup>. Differences have also been identified in the levels of social support available, appraisals of the caregiving situation and coping and help-seeking behaviour. Caucasian caregivers typically employ problem-solving and avoidance strategies more frequently than do African-American caregivers, perhaps because Caucasians perceive caregiving situations as a greater threat or stressor than do African-Americans. Moreover, African-American caregivers are more likely to view their situation in more positive terms, and draw upon religious faith and social networks to mitigate caregiving stress<sup>[11,13,21-23,29,52,54-57]</sup>. Caregivers from ethnic minority groups appear to have wider and stronger informal support networks than White caregivers<sup>[20-23,58,59]</sup>. The availability of greater informal support has been linked to the reduced use of formal services and low service utilisation among minority ethnic caregivers<sup>[60,61]</sup>. Consequently, caregivers from ethnic minorities cope with the stress of caregiving by turning to this readily available means of support from the family and the wider community<sup>[10,13,53]</sup>. They also seem to use more religious and spiritual methods of coping<sup>[57]</sup>. Apart from differences in negative outcomes of caregiving, a number of studies have also indicated a higher prevalence of positive aspects of caregiving and greater satisfaction from caregiving among caregivers from ethnic minority groups<sup>[10,13,33,35,51,54,61]</sup>. However, the reliability of these cultural and ethnic differences in caregiving has often been com-

promised by methodological shortcomings and inconsistent findings across studies<sup>[19,24,51,52,55]</sup>. Moreover, socioeconomic status, cultural differences, and within-group variability may confound research findings, making it more difficult to determine how ethnicity or culture differentially impacts the caregiving experience. It has been suggested that cultural or ethnic status may function as a proxy variable for other important factors that are more likely to impact caregiving experiences, such as income, education, health, and family structure<sup>[55]</sup>. This is not to suggest that ethnic minority status makes families immune to care related stressors. For example, ethnic minority caregivers also report worse physical health and more unhealthy behaviours than whites, after adjustment for socio-demographic differences<sup>[13,27]</sup>. Nevertheless, there seems to be hardly any doubt that the cultural context shapes the entirety of the caregiving experience and culturally-justified ideologies about roles, responsibilities, and coping shape the caregiving process<sup>[20-31]</sup>. This has often been referred to as the dimension of “cultural justification”; that is, the process by which caregivers call upon cultural norms and values, styles of communication and coping, and reliance on informal support systems to justify their role and responsibility as primary care providers for their chronically ill family members<sup>[26]</sup>. Variants of the stress-coping model, which incorporate cultural elements of caregiving have, thus, been proposed to account for these cultural and ethnic differences in caregiving.

## FAMILIAL-CULTURAL FACTORS IN CAREGIVING

The list of potential cultural influences on the experience of caregiving is a long one. For sake of convenience, these factors can be divided into those pertaining to family values and norms such as familism, filial obligations or piety, family cohesion and solidarity, and other family values such as reciprocity between adult children and their parents, role modelling of caregiving behaviour for one's own children, and religious and spiritual values emphasising an ethic to care for family members. The second group would include explanatory models of illnesses held by the caregivers and their attitudes towards mental illnesses. The third group would include coping styles, the influence of religion, and the influence of the wider community and social networks. Finally, factors such as acculturation and disadvantaged status could also be important, particularly for ethnic minority groups in the West<sup>[21,22,24,28-31]</sup>.

Familism is a cultural value that refers to the strong identification and solidarity of individuals with their family as well as strong normative feelings of allegiance, dedication, reciprocity, and attachment to their family members, both nuclear and extended<sup>[29]</sup>. A review of caregivers from six American ethnic groups found highest levels of familism among most ethnic minority groups, compared to White American caregivers<sup>[62]</sup>.

Thus, familism was representative of the individualism-collectivism dimension, and the differences on this measure reflected the effects of acculturation. It was further proposed that higher levels of familism would lead to a more benign appraisal of the stress of caregiving among ethnic minority groups, as it would reflect an underlying desire to provide care for family members<sup>[21]</sup>. This could explain why caregivers from ethnic minorities report caregiving as less stressful and burdensome. However, the hypothesis that higher levels of familism would result in less burden for caregivers from different cultural and ethnic groups was not borne out by subsequent research. Findings in this regard were mixed, and indicated that familism has a complex relation with caregiving, and the caregiving process may be influenced by numerous other factors<sup>[29,63-66]</sup>. One reason for such inconsistent results could be that familism is not a unitary construct. In fact, factor analysis has revealed three dimensions of the construct. These include familial obligation, a factor that reflects cultural values that demand caregiving for family members in need; perceived support from the family, a factor that measures cultural expectations that family members will be supportive in times of need; and family as referents, a factor that taps the value that sets up the family as a major source of rules and guidance for how life should be lived. These three dimensions appear to have independent and differing influences on the perception of burden. Accordingly, familism can have positive influences on caregiving distress when the family is perceived as a source of support. However, the dimensions of familism pertaining to a strong adherence to values regarding both feelings of obligation to provide support, as well as behaviours and attitudes that should be followed by different members of a family have been linked to increased caregiver burden and distress<sup>[29,63-66]</sup>.

Filial piety or obligations is a common notion among Asian cultures including the Chinese and Indian people. It includes respect and care for elderly family members, which is explicitly taught to children from an early age. This family-centred cultural construct implies that adult children have a responsibility to sacrifice individual physical, financial, and social interests for the benefit of their parents or family. Filial piety has also been proposed to be a two-dimensional construct: behavioural (making sacrifices, taking responsibility) and emotional (harmony, love, respect). Although some studies have shown that high levels of filial piety make for lowered caregiving burden, this is not a consistent finding. Thus, similar to familism, the obligatory aspect of filial piety norms may constitute a source of stress for some caregivers belonging to ethnic minorities<sup>[28,29,31,57,44,67-70]</sup>.

Another familial factor thought to have a significant impact on the process of caregiving is family cohesion, a process considered important for family functioning. It refers to the emotional bonding that family members have towards one another. Authors have described cohesion to comprise affective qualities of family relationships such as support, affection, and helpfulness<sup>[46,52,66,71]</sup>.

Families with very high levels of cohesion, (“enmeshment”) often show communication patterns which are psychologically and emotionally intrusive or inhibitive commonly resulting in poor individuation and psychosocial maturity, whereas low levels of cohesion (“disengagement”) can lead to poor affective involvement within the family. Thus, optimal levels of family-cohesion are believed to be ideal for stable family functioning and proper caregiving, and this may differ among ethnic and cultural groups<sup>[46,66]</sup>.

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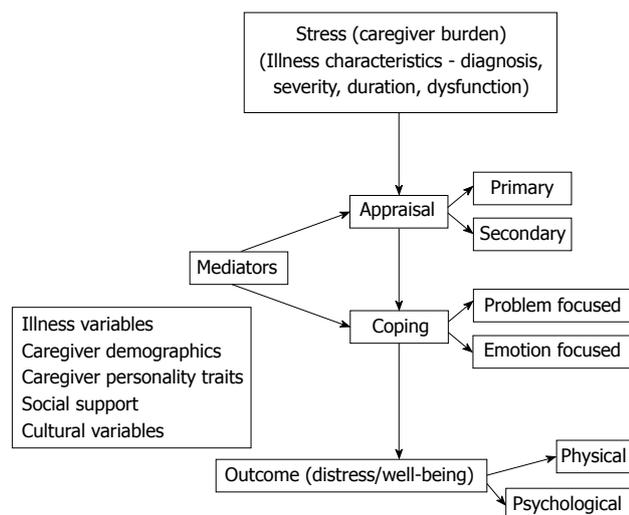
## MODELS OF CAREGIVING AMONG DIFFERENT ETHNIC AND CULTURAL GROUPS

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Initial attempts to explain differences in caregiving among ethnic minority groups in the West gave rise to the disadvantaged minority group model. This model proposed that because of the historically disadvantaged social history of minority ethnic groups, a number of unique stressors, resources, and vulnerabilities had emerged, which could influence caregiving experiences and caregiver well-being. Caregivers from minority ethnic groups would thus be suffering from the double jeopardy of being from a disadvantaged minority group and being exposed to the negative outcomes, which the caregiving role engenders. In this model, ethnicity was thought to reflect mainly disadvantaged minority status, which was often confounded by socioeconomic status. However, the data did not support this model. Although some studies suggested that differences in caregiving outcomes among minority ethnic groups could be explained by poor socio-economic conditions, the majority of the studies have found lower levels of caregiving burden and stress among ethnic groups such as African-Americans or Hispanics. Moreover, the model overlooked the positive aspects of caregiving, which were more commonly reported by caregivers from minority ethnic groups<sup>[29]</sup>.

Thus, models based on the Lazarus and Folkman’s stress-coping approach were proposed instead. Differences in caregiving among diverse cultural groups were explained by a shared common core model, in which caregiving stressors lead to the appraisal of caregiving as burdensome and thus to poor health outcomes (see Figure 1). This model was originally proposed to explain caregiving outcomes in dementia, and was later extended to caregiving experiences with the frail elderly. More recently, this model has provided a framework for examining caregiving in other psychiatric illnesses such as schizophrenia<sup>[11,29,31]</sup>.

The cultural variant of this stress-coping model was first proposed by Aranda *et al*<sup>[21]</sup>. These authors based their observations on Latino caregivers and concluded that the dimension of individualism *vs* collectivism, or familism, explained the differences in caregiving among different ethnic and cultural groups. They further proposed that cultural influences such as familism operate



**Figure 1** A simplified depiction of the stress-appraisal-coping model of caregiving.

at the level of appraisals of burden. Consequently, higher levels of familism would lead to more benign appraisals of burden, and also to different patterns of using social support, and coping styles, and eventually to lowered perceptions of caregiving as burdensome. Subsequent research on cultural influences in caregiving did not support the predominant role of familism in explaining cultural differences. Other factors such as filial obligations were also felt to be important. Moreover, a single dimension of caregiving from individualism to familism was not found sufficient to explain cultural differences in caregiving. The influence of cultural factors seemed to be more on coping than appraisals of caregiving stress. Therefore, a revised socio-cultural stress-coping model has been proposed<sup>[29,31,66]</sup>. In this model the impact of cultural influences on caregiving is smaller, more group specific, and varied in direction of effect than anticipated. Moreover, cultural differences appear to operate at the level of coping with caregiving stress and the social support available for the caregiver, rather than appraisals of burden.

## METHODOLOGICAL AND CONCEPTUAL ISSUES

The research thus far has clearly demonstrated that there are obvious cultural differences in the experience of caregiving. It has also identified potential cultural factors of interest and proposed models to explain their influence. However, things are far from clear and findings are far from consistent.

One reason for the inconsistent and uncertain nature of the findings could be methodological problems, which affect quite a few of the studies<sup>[21,23,24,27,29,55]</sup>. Many studies have used purposive or convenience sampling, and the numbers included have often been too small to reach definitive conclusions. Non-caregiving controls have not been used often. Only about half the studies have incorporated conceptual frameworks and models

for examining burden and related variables. In certain areas such as caregiver burden, established measures have been mostly used, while in other domains such as social support or coping, there is a great deal of variability and heterogeneity in the measures used<sup>[24]</sup>. The cross-cultural relevance of the measures used is another problem, which needs to be addressed<sup>[23]</sup>.

In addition, it is becoming increasingly clear that cultural influences are highly complex and multi-dimensional. They are also quite group specific. For example, Dilworth-Anderson *et al*<sup>[24]</sup> found that White caregivers were significantly more depressed and burdened than African-American caregivers, while Hispanic and White caregivers experienced higher levels of role strain compared to African-Americans. Similarly, Japanese and Mexican-American caregivers reported significantly more psychiatric distress than did White and African-Americans<sup>[35,36,64]</sup>.

Moreover, there appears to be substantial within-group heterogeneity among caregivers, which complicates the accurate attribution of differences among caregivers to specific aspects of their group membership<sup>[23]</sup>. Cultural values and norms are not static entities; instead they can change from one generation to the next because of the influence of urbanisation, globalisation and acculturation<sup>[13,61,72]</sup>. The interactions between cultural values and other factors such as gender are also complex. For example, Indian and Chinese studies have shown that effects of filial piety and other traditional values could differ between the genders. Women who adhered to notions of filial piety and Asian cultural values regarding family obligations were more likely to perceive greater burden than men who adhered to the same notions<sup>[37,45,68]</sup>. Finally, most studies have examined family factors on the dimension of familism (or collectivism) to individualism. Other dimensions of potential importance, such as the difference between shame and guilt cultures, have not received as much attention. There is some evidence to indicate that shame and stigma of mental illness may have more negative effects on Asian caregivers, and prevent them from accessing services<sup>[30,34,72,73]</sup>. Such evidence indicates the need to examine all possible dimensions, which might explain cultural differences in caregiving.

## TASKS AHEAD

Despite the theoretical and methodological problems, the foundations of a culturally based framework of caregiving in chronic psychiatric illnesses appear to have been laid. Research on cultural differences in caregiving has important implications for caregivers and the professionals involved in assisting them. An understanding of the role of culture in caregiving is an essential first step, and it can be hoped that future research will help unravel the complexities of this association. Findings of such research could also be utilised to inform professionals working with culturally diverse groups of caregivers, so that they are more sensitive to the unique needs of these families. Moreover, the results could be used to guide

the efforts to devise culturally adapted versions of interventions to reduce caregiver burden and distress<sup>[28-31]</sup>. It is for these very reasons that research in this area needs to continue. More pertinently, there is a greater need for research on cultural aspects of caregiving from Asian and other non-Western countries, on lines of the research among ethnic minorities in the West. Finally, other chronic psychiatric illnesses such as schizophrenia and mood disorders also merit examination of cultural aspects of caregiving among them.

## REFERENCES

- Zarit SH, Edwards AB. Family caregiving: research and clinical intervention. In: Woods RT, editor. Psychological problems of ageing: assessment, treatment and care. Chichester: John Wiley & Sons, 1999: 153-193
- Family Caregiver Alliance. Caregiver assessment: principles, guidelines and strategies for change. Report from a National Consensus Development Conference. Volume I. San Francisco (CA): Family Caregiver Alliance, 2006
- Schene AH, Tessler RC, Gamache GM. Caregiving in severe mental illness: conceptualization and measurement. In: Knudsen HC, Thornicroft G, editors. Mental Health Service Evaluation. Cambridge, England: Cambridge University Press, 1996: 296-316
- Platt S. Measuring the burden of psychiatric illness on the family: an evaluation of some rating scales. *Psychol Med* 1985; **15**: 383-393 [PMID: 4023142 DOI: 10.1017/S0033291700023680]
- Fadden G, Bebbington P, Kuipers L. The burden of care: the impact of functional psychiatric illness on the patient's family. *Br J Psychiatry* 1987; **150**: 285-292 [PMID: 3311267 DOI: 10.1192/bjp.150.3.285]
- Awad AG, Voruganti LN. The burden of schizophrenia on caregivers: a review. *Pharmacoeconomics* 2008; **26**: 149-162 [PMID: 18198934 DOI: 10.2165/00019053-200826020-00005]
- Baronet AM. Factors associated with caregiver burden in mental illness: a critical review of the research literature. *Clin Psychol Rev* 1999; **19**: 819-841 [PMID: 10520437 DOI: 10.1016/S0272-7358(98)00076-2]
- Oyebode J. Assessment of carers' psychological needs. *Adv Psychiatric Treat* 2003; **9**: 45-53 [DOI: 10.1192/apt.9.1.45]
- Nadine F, Marks NF, Lambert JD. Family caregiving: Contemporary trends and issues. NSFH Working Paper No. 78. Menomonie: University of Wisconsin-Madison, 1997
- Montgomery RJV, Rowe JM, Kosloski K. Family caregiving. In: Blackburn JA, C. N. Dulmus CN, editors. Handbook of gerontology: evidence-based approaches to theory, practice, and Policy. New Jersey: John Wiley & Sons, 2007: 426-454
- Shah AJ, Wadoo O, Latoo J. Psychological distress in carers of people with mental disorders. *BJMP* 2010; **3**: a327. Available from: URL: <http://www.bjmp.org/.../psychological-distress-carers-people-mental-disorders>
- Ohaeri JU. The burden of caregiving in families with a mental illness: a review of 2002. *Curr Opin Psychiatry* 2003; **16**: 457-465 [DOI: 10.1097/01.yco.0000079212.36371.c0]
- Schulze B, Rössler W. Caregiver burden in mental illness: review of measurement, findings and interventions in 2004-2005. *Curr Opin Psychiatry* 2005; **18**: 684-691 [PMID: 16639098 DOI: 10.1097/01.yco.0000179504.87613.00]
- Grandón P, Jenaro C, Lemos S. Primary caregivers of schizophrenia outpatients: burden and predictor variables. *Psychiatry Res* 2008; **158**: 335-343 [PMID: 18280584 DOI: 10.1016/j.psychres.2006.12.013]
- Pinquart M, Sörensen S. Associations of stressors and uplifts of caregiving with caregiver burden and depressive mood: a meta-analysis. *J Gerontol B Psychol Sci Soc Sci* 2003; **58**: P112-P128 [PMID: 12646594 DOI: 10.1093/geronb/58.2.P112]
- Lazarus RS, Folkman S. Stress, appraisal, and coping. New York: Springer, 1984
- Szmukler GI, Burgess P, Herrman H, Benson A, Colusa S, Bloch S. Caring for relatives with serious mental illness: the development of the Experience of Caregiving Inventory. *Soc Psychiatry Psychiatr Epidemiol* 1996; **31**: 137-148 [PMID: 8766459 DOI: 10.1007/BF00785760]
- Barrowclough C, Parle M. Appraisal, psychological adjustment and expressed emotion in relatives of patients suffering from schizophrenia. *Br J Psychiatry* 1997; **171**: 26-30 [PMID: 9328490 DOI: 10.1192/bjp.171.1.26]
- Morycz RK, Malloy J, Bozich M, Martz P. Racial differences in family burden: Clinical implications for social work. *J Gerontological Social Work* 1987; **10**: 133-154 [DOI: 10.1300/J083V10N01\_10]
- Connell CM, Gibson GD. Racial, ethnic, and cultural differences in dementia caregiving: review and analysis. *Gerontologist* 1997; **37**: 355-364 [PMID: 9203759 DOI: 10.1093/geront/37.3.355]
- Aranda MP, Knight BG. The influence of ethnicity and culture on the caregiver stress and coping process: a socio-cultural review and analysis. *Gerontologist* 1997; **37**: 342-354 [PMID: 9203758 DOI: 10.1093/geront/37.3.342]
- Knight BG, Silverstein M, McCallum TJ, Fox LS. A sociocultural stress and coping model for mental health outcomes among African American caregivers in Southern California. *J Gerontol B Psychol Sci Soc Sci* 2000; **55**: P142-P150 [PMID: 11833976 DOI: 10.1093/geronb/55.3.P142]
- Janevic MR, Connell CM. Racial, ethnic, and cultural differences in the dementia caregiving experience: recent findings. *Gerontologist* 2001; **41**: 334-347 [PMID: 11405431 DOI: 10.1093/geront/41.3.334]
- Dilworth-Anderson P, Williams IC, Gibson BE. Issues of race, ethnicity, and culture in caregiving research: a 20-year review (1980-2000). *Gerontologist* 2002; **42**: 237-272 [PMID: 11914467 DOI: 10.1093/geront/42.2.237]
- Torti FM, Gwyther LP, Reed SD, Friedman JY, Schulman KA. A multinational review of recent trends and reports in dementia caregiver burden. *Alzheimer Dis Assoc Disord* 2004; **18**: 99-109 [PMID: 15249854 DOI: 10.1097/01.wad.0000126902.37908.b2]
- Dilworth-Anderson P, Brummett BH, Goodwin P, Williams SW, Williams RB, Siegler IC. Effect of race on cultural justifications for caregiving. *J Gerontol B Psychol Sci Soc Sci* 2005; **60**: S257-S262 [PMID: 16131626 DOI: 10.1093/geronb/60.5.S257]
- Pinquart M, Sörensen S. Ethnic differences in stressors, resources, and psychological outcomes of family caregiving: a meta-analysis. *Gerontologist* 2005; **45**: 90-106 [PMID: 15695420 DOI: 10.1093/geront/45.1.90]
- Kong EH. The influence of culture on the experiences of Korean, Korean American, and Caucasian-American family caregivers of frail older adults: a literature review. *Taehan Kanho Hakhoe Chi* 2007; **37**: 213-220 [PMID: 17435406]
- Knight BG, Sayegh P. Cultural values and caregiving: the updated sociocultural stress and coping model. *J Gerontol B Psychol Sci Soc Sci* 2010; **65B**: 5-13 [PMID: 19934166 DOI: 10.1093/geronb/gbp096]
- Chan SW. Family caregiving in dementia: the Asian perspective of a global problem. *Dement Geriatr Cogn Disord* 2010; **30**: 469-478 [PMID: 21252540 DOI: 10.1159/000322086]
- Sun F, Ong R, Burnette D. The influence of ethnicity and culture on dementia caregiving: a review of empirical studies on Chinese Americans. *Am J Alzheimer's Dis Other Dement* 2012; **27**: 13-22 [PMID: 22467411 DOI: 10.1177/1533317512438224]
- Lin TY, Tardiff K, Donetz G, Goresky W. Ethnicity and patterns of help-seeking. *Cult Med Psychiatry* 1978; **2**: 3-13 [PMID: 699621 DOI: 10.1007/BF00052447]
- Lawton MP, Rajagopal D, Brody E, Kleban MH. The dynamics of caregiving for a demented elder among black and white families. *J Gerontol* 1992; **47**: S156-S164 [PMID:

- 1624710 DOI: 10.1093/geronj/47.4.S156]
- 34 **Ryder AG**, Bean G, Dion KL. Caregiver responses to symptoms of first-onset psychosis: a comparative study of Chinese- and Euro-Canadian families. *Transcult Psychiatry* 2000; **37**: 255-266 [DOI: 10.1177/136346150003700207]
  - 35 **Adams B**, Aranda MP, Kemp B, Takagi K. Ethnic and gender differences in distress among Anglo American, African American, Japanese American, and Mexican American spousal caregivers of persons with dementia. *J Clin Geropsychol* 2002; **8**: 279-301 [DOI: 10.1023/A:1019627323558]
  - 36 **Kinoshita LM**, Gallagher-Thompson D. Japanese American caregivers of individuals with dementia: An examination of Japanese cultural values and dementia caregiving. *Clin Gerontol* 2004; **27**: 87-102 [DOI: 10.1300/J018v27n01\_08]
  - 37 **Gupta R**, Pillai VK. Analysis of caregiver burden in South Asian families in the Dallas-Fort Worth metropolitan area: insights for social practice. *J Appl Soc Sci* 2012; **22**: 35-54
  - 38 **Lawrence V**, Murray J, Samsi K, Banerjee S. Attitudes and support needs of Black Caribbean, south Asian and White British carers of people with dementia in the UK. *Br J Psychiatry* 2008; **193**: 240-246 [PMID: 18757985 DOI: 10.1192/bjp.bp.107.045187]
  - 39 **Kirmayer LJ**. Cultural variations in the response to psychiatric disorders and emotional distress. *Soc Sci Med* 1989; **29**: 327-339 [PMID: 2669146 DOI: 10.1016/0277-9536(89)90281-5]
  - 40 **Chow NWS**. Family care of the elderly in Hong Kong. In: Kosberg J, editor, *Family Care of the elderly: Social and cultural changes*. California: Sage, 1992: 123-137
  - 41 **Philips MR**, Pearson V. Coping in Chinese communities. In: Bond MH, editor, *The Handbook of Chinese Psychology*. New York, NY, US: Oxford University Press, 1996: 429-440
  - 42 **Wong DF**, Tsui HK, Pearson V, Chen EY, Chiu SN. Family burdens, Chinese health beliefs, and the mental health of Chinese caregivers in Hong Kong. *Transcult Psychiatry* 2004; **41**: 497-513 [PMID: 15709648 DOI: 10.1177/1363461504047932]
  - 43 **Chiou CJ**, Chang HY, Chen IP, Wang HH. Social support and caregiving circumstances as predictors of caregiver burden in Taiwan. *Arch Gerontol Geriatr* 2009; **48**: 419-424 [PMID: 18602706 DOI: 10.1016/j.archger.2008.04.001]
  - 44 **Gupta R**, Rowe N, Pillai VK. Perceived caregiver burden in India: implications for social services. *Affilia* 2009; **24**: 69-79 [DOI: 10.1177/0886109908326998]
  - 45 **Chan CL**, Chui EW. Association between cultural factors and the caregiving burden for Chinese spousal caregivers of frail elderly in Hong Kong. *Aging Ment Health* 2011; **15**: 500-509 [PMID: 21500017 DOI: 10.1080/13607863.2010.536139]
  - 46 **Weisman A**, Rosales G, Kymalainen J, Armesto J. Ethnicity, family cohesion, religiosity and general emotional distress in patients with schizophrenia and their relatives. *J Nerv Ment Dis* 2005; **193**: 359-368 [PMID: 15920376 DOI: 10.1097/01.nmd.0000165087.20440.d1]
  - 47 **Rosenfarb IS**, Bellack AS, Aziz N. A sociocultural stress, appraisal, and coping model of subjective burden and family attitudes toward patients with schizophrenia. *J Abnorm Psychol* 2006; **115**: 157-165 [PMID: 16492106 DOI: 10.1037/0021-843X.115.1.157]
  - 48 **Magaña SM**, Ramírez García JI, Hernández MG, Cortez R. Psychological distress among latino family caregivers of adults with schizophrenia: the roles of burden and stigma. *Psychiatr Serv* 2007; **58**: 378-384 [PMID: 17325112 DOI: 10.1176/appi.ps.58.3.378]
  - 49 **Tennstedt S**, Chang BH. The relative contribution of ethnicity versus socioeconomic status in explaining differences in disability and receipt of informal care. *J Gerontol B Psychol Sci Soc Sci* 1998; **53**: S61-S70 [PMID: 9520931]
  - 50 **Burton L**, Kasper J, Shore A, Cagney K, LaVeist T, Cubbin C, German P. The structure of informal care: are there differences by race? *Gerontologist* 1995; **35**: 744-752 [PMID: 8557202]
  - 51 **White TM**, Townsend AL, Stephens MA. Comparisons of African American and White women in the parent care role. *Gerontologist* 2000; **40**: 718-728 [PMID: 11131088 DOI: 10.1093/geront/40.6.718]
  - 52 **Haley WE**, Roth DL, Coletton MI, Ford GR, West CA, Collins RP, Isobe TL. Appraisal, coping, and social support as mediators of well-being in black and white family caregivers of patients with Alzheimer's disease. *J Consult Clin Psychol* 1996; **64**: 121-129 [PMID: 8907091 DOI: 10.1037/0022-006X.64.1.121]
  - 53 **Toth-Cohen S**. Factors influencing appraisal of upset in black caregivers of persons with Alzheimer disease and related dementias. *Alzheimer Dis Assoc Disord* 2004; **18**: 247-255 [PMID: 15592139]
  - 54 **Bulger MW**, Wandersman A, Goldman CR. Burdens and gratifications of caregiving: appraisal of parental care of adults with schizophrenia. *Am J Orthopsychiatry* 1993; **63**: 255-265 [PMID: 8484431 DOI: 10.1037/h0079437]
  - 55 **Young RF**, Kahana E. The context of caregiving and well-being outcomes among African and Caucasian Americans. *Gerontologist* 1995; **35**: 225-232 [PMID: 7750779 DOI: 10.1093/geront/35.2.225]
  - 56 **Spurlock WR**. Spiritual well-being and caregiver burden in Alzheimer's caregivers. *Geriatr Nurs* 2005; **26**: 154-161 [PMID: 15973342 DOI: 10.1016/j.gerinurse.2005.03.006]
  - 57 **Picot SJ**, Debanne SM, Namazi KH, Wykle ML. Religiosity and perceived rewards of black and white caregivers. *Gerontologist* 1997; **37**: 89-101 [PMID: 9046710 DOI: 10.1093/geront/37.1.89]
  - 58 **Valle R**, Yamada AM, Barrio C. Ethnic differences in social network help-seeking strategies among Latino and Euro-American dementia caregivers. *Aging Ment Health* 2004; **8**: 535-543 [PMID: 15724836 DOI: 10.1080/13607860410001725045]
  - 59 **Kaufman AV**, Kosberg JI, Leeper JD, Tang M. Social support, caregiver burden, and life satisfaction in a sample of rural African American and White caregivers of older persons with dementia. *J Gerontol Soc Work* 2010; **53**: 251-269 [PMID: 20336572 DOI: 10.1080/01634370903478989]
  - 60 **Kosloski K**, Schaefer JP, Allwardt D, Montgomery RJ, Karner TX. The role of cultural factors on clients' attitudes toward caregiving, perceptions of service delivery, and service utilization. *Home Health Care Serv Q* 2002; **21**: 65-88 [PMID: 12665072 DOI: 10.1300/J027v21n03\_04]
  - 61 **Scharlach AE**, Kellam R, Ong N, Baskin A, Goldstein C, Fox PJ. Cultural attitudes and caregiver service use: lessons from focus groups with racially and ethnically diverse family caregivers. *J Gerontol Soc Work* 2006; **47**: 133-156 [PMID: 16901881 DOI: 10.1300/J083v47n01\_09]
  - 62 **Knight BG**, Robinson GS, Flynn Longmire CV, Chun M, Nakao K, Kim JH. Cross cultural issues in caregiving for dementia: Do familism values reduce burden and distress? *Ageing International* 2002; **27**: 70-94 [DOI: 10.1007/s12126-003-1003-y]
  - 63 **Kim JH**, Knight BG, Longmire CV. The role of familism in stress and coping processes among African American and White dementia caregivers: effects on mental and physical health. *Health Psychol* 2007; **26**: 564-576 [PMID: 17845108 DOI: 10.1037/0278-6133.26.5.564]
  - 64 **Losada A**, Robinson Shurgot G, Knight BG, Márquez M, Montorio I, Izal M, Ruiz MA. Cross-cultural study comparing the association of familism with burden and depressive symptoms in two samples of Hispanic dementia caregivers. *Aging Ment Health* 2006; **10**: 69-76 [PMID: 16338817 DOI: 10.1080/13607860500307647]
  - 65 **Losada A**, Marquez-Gonzalez M, Knight BG, Yanguas J, Sayegh P, Romero-Moreno R. Psychosocial factors and caregivers' distress: effects of familism and dysfunctional thoughts. *Aging Ment Health* 2010; **14**: 193-202 [PMID: 20336551 DOI: 10.1080/13607860903167838]
  - 66 **Sayegh P**, Knight BG. The effects of familism and cultural justification on the mental and physical health of family caregivers. *J Gerontol B Psychol Sci Soc Sci* 2011; **66**: 3-14 [PMID: 20797972 DOI: 10.1093/geronb/gbq061]

- 67 **Sung KT.** Measures and dimensions of filial piety in Korea. *Gerontologist* 1995; **35**: 240-247 [PMID: 7750781 DOI: 10.1093/geront/35.2.240]
- 68 **Zhan HY, Montgomery RJV.** Gender and elder care in China: the influence of filial piety and structural constraints. *Genet Soc* 2003; **17**: 209-229 [DOI: 10.1177/0891243202250734]
- 69 **Lai DW.** Cultural predictors of caregiving burden of Chinese-Canadian family caregivers. *Can J Aging* 2007; **26** Suppl 1: 133-147 [PMID: 18089531 DOI: 10.3138/cja.26.suppl\_1.133]
- 70 **Lai DWL.** Filial piety, caregiving appraisal, and caregiving burden. *Research on Aging* 2010; **32**: 200-223 [DOI: 10.1177/0164027509351475]
- 71 **Olson DH, Sprenkle DH, Russell CS.** Circumplex model of marital and family system: I. Cohesion and adaptability dimensions, family types, and clinical applications. *Fam Process* 1979; **18**: 3-28 [PMID: 437067 DOI: 10.1111/j.1545-5300.1979.00003.x]
- 72 **Weng SS, Nguyen PV.** Factors affecting elder caregiving in multigenerational Asian American families. *Fam Soc* 2011; **92**: 329-335 [DOI: 10.1606/1044-3894.4133]
- 73 **Kung WW.** The illness, stigma, culture or immigration? Burdens of Chinese American caregivers of patients with schizophrenia. *Fam Soc* 2003; **84**: 547-557 [DOI: 10.1606/1044-3894.140]

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