

EL PROCESO DE BURNOUT Y EL VIH/SIDA: PRINCIPALES IMPLICACIONES EN LOS TRABAJADORES DE LA SALUD

Burnout process and hiv/aids: main implications for health care workers

Moreno-Jiménez, Bernardo¹; Rodríguez-Carvajal, Raquel²;
Departamento de Psicología. Universidad Autónoma de Madrid.

Velasco Furlong, Lilian³

Facultad de Ciencias de la Salud. Universidad Rey Juan Carlos.

Garrosa Hernández, Eva⁴; Morante Benadero, M^a Eugenia⁵.
Departamento de Psicología. Universidad Autónoma de Madrid.

ABSTRACT

Burnout has been identified as a significant problem in health care professions, particularly for those working in chronic care. Occupational burnout is conceptualised as a particular type of stress occurring principally in professional contexts where work overload demands, especially those of an interpersonal nature, lead to chronic emotional exhaustion, depersonalization and reduced sense of personal accomplishment explaining most of the physical and psychological problems at work. The issue of burnout in health care workers in the area of HIV disease has become increasingly important in the past decade. However, there has been little systematic research in this area. The present article is a selected review of the literature, through more than 200 articles on burnout in health care workers treating HIV/AIDS patients published since 1988. The main purpose is to provide a framework and a global paradigm of the burnout process in different health workers looking after patients with AIDS. Among the aspects evaluated are the process, stressors, buffers and consequences of burnout. The analysis shows the presence of methodological inconsistencies that have hindered the development of a coherent view in this specific field, and the establishment of effective prevention and intervention programmes.

Keywords: revision, burnout, physicians, nurses, volunteers, HIV/AIDS.

RESUMEN

El síndrome de desgaste se ha identificado como un problema significativo en las profesiones asociadas con el cuidado de la salud; en particular, para quienes trabajan en cuidado crónico. El desgaste por el trabajo está conceptualizado como un tipo particular de estrés que ocurre primordialmente en contextos profesionales donde las demandas excesivas de trabajo, en especial las de naturaleza interpersonal, producen cansancio emocional crónico, despersonalización y reducen el sentido de logro personal explicando la mayoría de los problemas físicos y psicológicos en el trabajo. El tema de la quema en el trabajo en el área de las enfermedades asociadas con el SIDA se ha hecho cada vez más importante en la pasada década. Sin embargo, ha habido poca investigación sistemática en este campo. Este artículo es una revisión selecta de la literatura en más de 200 artículos sobre el síndrome en trabajadores de la salud que tratan pacientes con VIH/SIDA y que fueron publicados desde 1988. El propósito principal es proporcionar un marco teórico y un paradigma global del proceso de desgaste. Entre los procesos evaluados están los procesos, estresores, amortiguadores y las consecuencias del desgaste. El análisis muestra la presencia de inconsistencias metodológicas que han dificultado el desarrollo coherente en este campo específico y el establecimiento de programas efectivos de intervención.

Palabras clave: estudio teórico, burnout, médicos, enfermeras, voluntarios, VIH/SIDA



Correo electrónico:

E- Mail: bernardo.moreno@uam.es

Dirección: Departamento de Psicología Biológica y de la Salud
Facultad de Psicología, Universidad Autónoma de Madrid

Ctra. Colmenar, km. 15, 28049 Madrid, Spain

Teléfono: 00.34.91.397.5185 Fax: 00.34.91.397.5215.

Artículo recibido: 28 de febrero de 2006

Artículo aceptado: 26 de abril de 2006

One of the problems affecting HIV/AIDS care professionals is the Burnout Syndrome. Initially, burnout was described by Freudenberger (1974) as the feelings experienced by professional workers when their emotional resources were exhausted. Later, Maslach and Jackson (1981, 1982, 1986) redefined the concept as a particular kind of stress occurring primarily in occupations in which the environment is very demanding, especially the interpersonal jobs, where aspects such as chronic emotional exhaustion, depersonalization and lack of personal accomplishment are found. This led to an operationalization of the syndrome that facilitated the construction of the evaluation instrument most commonly used today: 'The Maslach Burnout Inventory', or MBI. (Maslach & Jackson, 1986) More recently, Leiter (1991) suggested burnout as a social phenomenon, which responds to occupational stressors. The most important and significant consequences of the Burnout Syndrome are high staff rotation, dropout and low productivity, consequences that have repercussions at organizational level as well as for services and individuals (Gueritault-Chalvin, Kalichman, Demi & Peterson, 2000).

The triggering factors of burnout and stress experienced by health workers and volunteers working with HIV/AIDS-infected people are related to a variety of topics: job interpersonal relations, caregiver-patient relationship, the nature of the disease involved, and task and organizational factors (Bellani et al., 1996; Barbour, 1995; Lloyd, 1995; Lert & Marne, 1992; Gallop, Lancee, Taerk, Coates & Fanning, 1992; Delph, 1991; Siminoff, Erlen & Lidz, 1990; Smyser, Bryce & Joseph, 1990; Blumenfield, Sith, Milazzo, Seropian & Wormser, 1987; Douglas, Kalman & Kalman, 1985) As far as interpersonal work relations are concerned, burnout in HIV/AIDS caregivers emerges as related to a lack of initiative or a leader figure for decision-making, lack of recognition in one's work and lack of support and supervision. As regards the caregiver-patient relationship, an excessive sense of duty about people suffering from AIDS and their families, personal identification with the AIDS patients, fear of the patient's death, and lack of respect or sympathy between health care worker and patient are common factors associated with burnout in HIV/AIDS workers. As far as the actual nature of the disease is concerned, burnout is related to aspects such as the stigma associated with HIV and AIDS, secrecy and fear in HIV/AIDS sufferers about revealing their condition, fear of infection and the fact that AIDS

is incurable. The work of HIV/AIDS caregivers with burnout is characterized by an excessive stressful job implying a lack of privacy in the work environment, little autonomy or responsibility and an unclear job description. Lastly, several organizational factors emerge as stressors, such as financial problems, inadequate job training and education, lack of reference material and lack of medication and sanitary supplies.

Levels of distress suffered by HIV/AIDS caregivers are high, and while this epidemic grows, with the consequent overload for the Health Services, caregiving falls to relatives and communities. These groups, which constitute a valuable resource, are scarcely recognized. The care quality they offer and their ability to provide it long-term depend on how their well-being and mood are protected, so that it is essential to continue research in this area in order to identify support and prevention strategies. These are the reasons why studies on burnout and its impact on health professionals and volunteers are necessary. It is relevant and urgent to establish the principal parameters for this process in HIV/AIDS caregivers.

Since Burnout research has been incepted nearly 30 years ago, the construct has been a factor that affects the effect of stress in health. Although nearly 8 000 articles about burnout can be found, there is little research on burnout in specifically HIV/AIDS caregivers. Taking them as a whole will let us glimpse a framework and a global paradigm of the burnout process in AIDS caregivers. The research on the computer databases Psych-Info of the American Psychological Association and Medline using the keywords "burnout, HIV, AIDS, caregivers, physicians, nurses, volunteers" for articles published in academic journals, resulting in more than 100 studies. After eliminating duplicates and studies that were not related to burnout and HIV caregivers (e.g., those that were related to occupational stress), the 43 remaining studies were reviewed for inclusion.

BURNOUT LEVELS IN RELATION TO HIV/AIDS CAREGIVERS

Most of the burnout syndrome studies in HIV/AIDS caregivers have focused on nurses, physicians, and volunteers.

Nurses

The aspects related to burnout studied in nurses, as found in the theoretical review by Garret (1999) were attitudes, ethical dilemmas related to death, symptoms

management, new treatments and unpredictable reactions, as well as involvement, empathy and risk of HIV infection. Garret mentioned that most of these studies are merely descriptive and based on personal experiences, clinical observations, anecdotal events and questionnaires. Miller (1995) compared 100 oncology nurses with 103 AIDS nurses and found high burnout and stress levels in both samples, with no statistical differences. Plante and Burchard (1995) mentioned that nurses were more vulnerable than other health professionals to suffer high levels of burnout, since they had a sense of duty and support vis-à-vis their patients, which cause high demands both at work and when not at work. Faura, Roige and Serra (1995) found that hospital nurses experienced higher levels of burnout than community nurses, mainly because of work overload. Bennett, Kelaheer and Ross (1994) studied the importance of social support as a burnout buffer, and found that social stigmas associated with HIV patient care correlated with high burnout levels in 84 health care workers, including physicians and nurses. However, these workers only sought social support when experiencing burnout. Similar data were found in the study by Catalan et al. (1996) while Peragallo, Ferrer and Guarda (1995) found that nurses who assimilated their spiritual-religious and psychological problems into their professional activity developed stress and fear of infection and used exaggerated preventive measures. On the other hand, Visintini et al. (1996) found that HIV/AIDS caregivers turned out not to be at risk for developing burnout syndrome, ratifying data found by Miller and Gillies (1996). Furthermore, Parsons (1995) who had worked mainly in Australia and Asia, found that nurses were the most effective health professionals for HIV/AIDS preventive education and care, as well as palliative care. In fact, in these countries there had been an increase in educational programmes for nurses, helping to diminish negative thoughts and feelings about their patients' future and their death. A situation faced by nurses that is highly likely to cause burnout is the death of a child. Furthermore, nurses' scarce contact with the scientific literature affects their professional development, leading to inadequate training for HIV/AIDS caregiving and facilitating the spread of the disease (Parsons, 1995).

Doctors

Studies on burnout in AIDS doctors are scarce, though some research suggests that physicians have higher burnout levels than other health workers (Ben-

nett et al., 1994), mostly when they experience less social support (Garside, 1993). Some possible reasons for this lack of research are that physicians claim that emotions have no place in their role, and that talking about HIV/AIDS outside of work would only affect their emotions, possibly causing depression (Garside, 1993). Deckhard, Meterko and Field (1994) suggested that the burnout process in doctors begins when they concentrate on their professional career, ignoring their emotional needs. This author used the MBI (Maslach Burnout Inventory) in 342 physicians, and found a significant relationship between high burnout levels and organizational factors.

Volunteers

As regards volunteers, their work with HIV patients is considered as a risk factor. Guinan, McCallum, Painter, Dykes and Gold (1991) found that one-fifth of the sample had moderate or high scores in emotional exhaustion, depersonalization and lack of personal accomplishment. According to Nesbitt and Ross (1996) most caregivers: a) do not have adequate training, b) have not planned to be a volunteer, c) have a close relationship with the AIDS patient, and d) have other jobs. All of these are risk factor variables. Oktay (1992) mentioned that the main stressors in this sample are: excessive work hours and low salaries, poor career opportunities, ambiguity and role conflicts, disputes with co-workers and supervisors, poor job security and lack of autonomy, among others. Miller (1993) assessed psychological vulnerability and burnout in 103 health workers at seven hospitals. Volunteers reported that their job was more stressful than non-volunteers, who said it was stressful only sometimes. Nevertheless, there were no differences in burnout levels between them (Miller, 1993). Similarly, Folkman, Chesney and Christopher-Richards (1994) found that burnout was higher in informal caregivers than in professionals.

Despite the scarcity of studies on significant differences in burnout prevalence in relation to HIV caregivers, there is evidence of the involvement of different processes and variables, as will be discussed in the following paragraphs. However, much more needs to be learned about the burnout phenomenon for these populations. For example, it is not known whether AIDS health workers are just the same as other health workers in terms of their burnout experience, or whether they are different. Nor is it entirely clear whether

the burnout concept provides a sufficient explanatory framework for the experience of AIDS health work, particularly in the case of voluntary caregivers.

BURNOUT LEVELS IN RELATION TO SOCIODEMOGRAPHIC VARIABLES

Although some studies have shown that sociodemographic variables are not the most determinant in the development of burnout, others suggest these variables as buffers, so that, age, gender, experience or paid/non-paid work can influence the burnout process. Some studies reported that burnout correlates negatively with age, and positively with single status and childlessness, (Maslach & Jackson, 1981, 1986; Miller, 1992) while others suggested that there are no significant differences by marital status, years in caregiving or years in AIDS units (Bellani et al., 1996; Miller, 1991).

Nurses

As regards HIV nurses, recent data showed higher scores for burnout in women than in men (Hayter, 1999) though in previous studies no relationship was found between age, time spent with patients, gender and burnout. Gueritault-Chalvin et al. (2000) found that younger nurses with an internal locus of control and perceived job overload showed a higher risk of developing burnout. Other studies showed that sociodemographic variables, such as being younger, single and a nurse, especially coupled with inexperience, could be predictors of burnout (Bellani et al., 1996; Oktay, 1992; Silverman, 1993; Gillespie & Numerof, 1991).

Doctors

In samples of doctors working with HIV/AIDS patients, Lert, Chastang and Castano (2001) found no relationship between sociodemographic variables and organizational factors in emotional exhaustion. Depersonalization appeared mostly in male physicians, though with lower levels than in their co-workers from other specialization areas. Finally, physicians with full-time jobs had the lowest levels of personal accomplishment.

Volunteers

Claxton, Catalán and Burgess (1998) suggested that young and homosexual volunteers tended to have higher burnout levels, while lesbians had lower scores

in depersonalization and heterosexual women scored lower in burnout. It was also found that those with higher educational levels and higher salaries had more emotional exhaustion. These results suggested that the sociodemographic profile related to burnout in this sample was a young, homosexual, salaried man with high educational level. Other authors have proposed age as the only variable related to burnout and leaving one's job (Guinan et al., 1991, Maslanka, 1996; Raphael, Kelly, Dunne & Greig, 1990; Williams, 1988). Maslanka (1996) established age as a predictive variable of burnout in 256 volunteers. Differences in social and work conditions in different professions and cultures may explain this variety of results.

Likewise, transcultural studies have demonstrated a diversity of results according to communities. Thus, in Uganda the caregiver role was generally assumed by older and younger relatives (Seeley et al., 1993), while in the United Kingdom 87% of AIDS-infected individuals reported that their principal caregivers were close friends and/or partner (McCann & Wadsworth, 1992).

This research is still in its infancy, so that the number of studies is small. Furthermore, the majority of it has been carried out in urban contexts in industrialized countries. It remains unclear how differences in culture, prevalence of AIDS, demographic patterns, and health worker roles may affect the development of burnout across cultures and communities.

BURNOUT LEVELS IN RELATION TO STRESSORS

Nurses and doctors

Ross and Seeger (1988) have suggested that there are specific stressors related to burnout in HIV/AIDS caregivers. These authors considered that these variables would be more situational –such as patient's youth, patient's emotional needs, impact of the neurological aspects of the illness and number of deceased patients – than personality-related.

Klonoff and Ewers (1990) claimed that an important stressor for nurses is inexperience with HIV/AIDS patients and the attitudes of their friends and family toward their care. They therefore proposed the provision of information about transmission of the illness. Ross (1993) mentioned other stressors that could facilitate burnout: general job stressors (e.g., role ambiguity), lack of autonomy, emotionally demanding work and tasks, social stigmas, homophobia and sexual

discrimination, fear of contagion, affection and worry involved in taking care of seriously ill patients, and ethical and legal dilemmas. Lert et al. (2001) pointed out the following: work overload, time pressure (which correlated with high emotional exhaustion levels), conflicting demands, complex job structure, role ambiguity and lack of resources. Even though general burnout descriptions were initially conceptualised as contextual stressors, later formulations have pointed to the importance of individual and contextual interactions (Francis, 1989). For Lert et al. (2001) specific care of HIV/AIDS patients did not lead to either occupational stress or satisfaction, since individuals with the highest stress level have a greater probability of applying for another speciality. Thus, work overload is considered one of the most determinant stressors in burnout (Gillispie & Numerof, 1991). Claxton et al. (1998) showed that emotional exhaustion was positively related to seriously injured patients and hours spent with them weekly. Depersonalization was negatively related to closeness to patients. Personal accomplishment was positively related to closeness and hours spent with them weekly. Thus, less contact with patients could decrease the importance of situational factors, but increase the relative importance of personal vulnerability to stressors. Bennett, Kelaher and Ross (1993) concluded that burnout was more related to intensity than to workload or direct contact with patients, and Bellani et al. (1996) drew similar conclusions. Reilly (1994) suggested that nurses with more responsibilities could distinguish between different stressors and become more tolerant. Later, Slone and Stephany (1995) identified the importance of ethical dilemmas (especially related to death) faced by nurses, which included conflict between physicians and relatives and management of pain and symptoms. This was identified as an important reason why they experience feelings of frustration about the inability to satisfy patients, especially chronic ones. Brown et al. (2002) mentioned specific emotional stressors related to HIV/AIDS, such as fear of contagion, work and personal life stigma, problems related to transmission, and loss of patients (Bolle, 1988; Gilman, 1991; Gordon, Ulrich, Feeley & Pollack, 1993). Van Servellen and Leake (1994) found, using the MBI, high stress levels and emotional exhaustion in 153 nurses, along with positive correlations with age, work hours and fear of contagion. Dunkel and Hatfield (1986) and Drediger and Cox (1991) described fear of contagion as one of

the greatest stressors in HIV/AIDS nurses. Similarly, homophobia was found in the studies made by Ross and Seeger (1988) and Strathdee, Flannery and Graydon (1991) as a risk factor in developing high levels of burnout. Masterson-Allen, Mor, Laliberte and Montiero (1985), working with young patients, found that closeness to patients of the same age emerged as one of the main stressors in HIV/AIDS nurses. Hayter (1999) proposed lack of clinical supervision, job overload and traumatic experiences (terminal illness and death) as the variables most related to stress in Canadian community nurses. However, the results showed that in this sample (with 50% burnout prevalence), neither work overload nor direct time spent with patients was significantly related to burnout levels. Miller (1995) found that their patients' death had less emotional impact in AIDS nurses than oncology nurses.

Volunteers

Ross, Greenfield and Bennett (1999) suggested differences not only among stressors, but also between the kind and significance of rewards, depending on whether volunteers were religious or secular. Furthermore, these informal caregivers do not have an established work schedule or time limits, which results in a more demanding task, and they often showed "survivor's guilt" when they were exposed to HIV virus without being infected. Also, role conflict affected relationships with close friends or partners emerged when the demands and responsibilities of care came into conflict with expectations and previous relational patterns (Folkman et al., 1994).

Although many studies concentrate on the stressors involved in AIDS-related care, it has been noted that in the HIV/AIDS context there are also rewards that may balance burnout. These include the rewards of working in a new and personally relevant field, the social recognition, the gratitude of clients and patients, and a sense of achievement in making psychosocial (as opposed to physical) progress with clients and patients.

BURNOUT LEVELS IN RELATION TO BUFFERS

Coping Styles

According to Martin (1990), coping styles related to lack of commitment are associated with high burnout levels in HIV caregivers. Thus, nurses who used active coping styles coped better with stress. Furthermore, when

they faced critical situations, they used stress management techniques. On the other hand, nurses who employed coping styles such as avoidance or escape showed high stress levels. Depersonalization is often used as a coping style where an individual does not feel emotional ties with others. Fatalistic attitudes, negative expectations and trust in faith, prayers and miracles, all of them external coping styles, predicted burnout, according to Bennett et al. (1993). In another study, Bennett et al. (1994) found that high burnout levels were related to external coping styles, while low levels of burnout were associated with internal coping. Guéritault-Chalvin et al. (2000) in a path analysis study concluded that both internal (protective factor) and external coping styles could explain burnout more than age and job overload.

Locus of Control

One of the critical aspects of human behaviour is being able to control or, at least, predict consequences. Therefore, there is greater probability of suffering physical and psychological health damage when there is no opportunity for control, and where there are feelings of being in an uncontrollable or unpredictable situation (Janis & Rodin, 1979). Research on locus of control in HIV caregivers has shown an association with burnout – that is, internal-locus individuals have less probability of experiencing high burnout levels. Likewise, sense of control in professional health workers was related to professional self-efficacy levels (Maslach & Ozer, 1995).

Co-worker and Supervisor Support

As regards social support research, Miller (1995) claimed that lack of co-worker support, as well as lack of resources and sources of support, could facilitate burnout syndrome in HIV caregivers. Some authors, such as Hayter (1999) reported a strong relationship between burnout and lack of co-worker relationships in community HIV nurses. The informal support role of family and friends is an important protective factor, in addition to work support and supervision. These three elements are critical for avoiding burnout, since in this profession the high level of isolation makes it difficult for professional relationships to develop. In this line, Haviland et al. (1997) found that humour, support sources and supervisor support appear to reduce stress in professional HIV nurses. Palsson, Hallberg, Norburg and Bjorvell (1996) detected no significance differences in burnout related to access to

clinical supervision. This data is in contrast to that of other studies, in which supervision was found to be critical (Bolle, 1988; Randolph, Price & Collins, 1986; Hare, Pratt & Andrews, 1988).

In physicians, volunteers and social workers, it has been suggested that social support is an important protective factor for stress (Brown, Stermlock, Ford & Geary, 1999). Research showed that getting on well with team-mates is associated with less risk of burnout (Tannenbaum & Butler, 1992). Co-worker support is essential in intervention programmes because it reduces occupational stress levels. Regarding informal caregivers, research has shown that the seeking of social support varies according to the environment and attitudes of the community in which HIV/AIDS patients are treated. Attitudes to homosexuals could be relevant in situations in which HIV/AIDS is related to a gay/bisexual community lifestyle (Maslach & Ozer, 1995).

Over-Involvement

Involvement and degree of implication with HIV/AIDS patients generally imply a series of psychological risks, such as an increase in fear of death and anxiety. However, if identification levels are related to an increase in job significance and commitment, such identification serves as a protective factor, aiding job satisfaction and intellectual stimulation (Ross & Seeger, 1988). In that sense, Visintini et al. (1996) concluded that a tendency to over-involvement with patients was related positively to burnout, unlike empathy with controlled attitudinal development was a protective factor in 410 HIV/AIDS nurses. Another aspect of over-involvement with patients is the impact of their death. Hayter (1999) reported that over-involvement and death of patients contributed notably to stress and burnout. Unlike other authors (Bennett et al., 1993; Masterson-Allen et al., 1985; Perrault, Scherer & Adolph, 1996) Hayter found no association between degree of identification with patients and levels of burnout in any of its dimensions. Nowadays, these data show over-involvement as a risk factor in the burnout process, especially when it is related to death of patients, and identification with job sense and job significance as a protective factor.

Positive Buffers and Others

Bennett, Ross and Sunderland (1996) emphasized a series of rewards, which would act as positive buffers in HIV physicians. These included intellectual stimulation, co-worker appreciation and the gratitude

of patients and relatives. Similarly, autonomy, intellectual stimulation, promotion opportunities and personal growth have appeared as buffers and protective factors against burnout (Silverman, 1993; Ross & Seeger, 1988; Gilman, 1991; Brown et al., 1999; Bennett, 1991; Glass, McKnight & Valdimarsdottir, 1993). Other positive buffers specifically related to volunteer work are coping styles (Martin, 1990; Bennett & Kelaher, 1994), individual motivation (Calvert, Flynn, Fraser & Long, 1991), personality (Bellani et al., 1996; Keinan & Melamed, 1987), empathy with patient (Visintini et al., 1996) and job reward perception (Bennett et al., 1996).

To summarize, while most studies on stress and burnout in AIDS health care have focused on the negative and difficult aspects of this work, few have considered the caregiving variables that may buffer against stress. In this sense, coping skills and social support clearly buffer the development of burnout and intention to leave their job.

CONSEQUENCES IN BURNOUT PROCESS

Job Satisfaction

Job satisfaction emerged as negatively related to perceived stress levels and positively related to willingness to remain in one's job (Brown et al., 2002). Although in a recent study it was found that MBI scores predicted dissatisfaction and dropout in HIV/AIDS volunteers (Ross et al, 1999), caring for people with HIV illness can provide substantial satisfaction related to the caregiver's sense of doing good, obtaining the patient's appreciation, or seeing improvement in the patient's condition (Nashman, Hoare & Heddesheimer, 1990). Horstman and McKusick (1986), in their study on the psychosocial reaction of physicians working with AIDS, assessed several factors, including career satisfaction. Over 40% of the sample said that contact with the AIDS epidemic had led to increased intellectual stimulation and career satisfaction.

Dropout and Job Retention

According to the four-year study carried out by Brown et al. (2002) on the relationship between burnout, occupational stress and job retention, the best predictor for job retention in HIV caregivers is coworker-perceived stress levels, that is, the higher the coworker-perceived stress level, the greater the probability that the person will leave the job. In addition, they concluded that support from professional colle-

agues, rather than any specific job task, is the most salient factor in enhancing employee retention. Ross and Seeger (1988) and Ross et al. (1999) found that the burnout process and dropout in HIV caregivers differs between salaried workers and volunteers, who can leave the job without suffering any kind of financial disadvantage. In volunteers, the rewards are not protective factors for burnout. According to these authors, the best predictors of dropout are patient problems, role ambiguity, emotional overload, organizational factors and intensity of depersonalization.

Physical and Psychological Consequences

HIV/AIDS caregivers are increasingly confronted by this infection, and many of them experience physical, behavioural and cognitive/affective symptoms commonly associated with chronic stress. These symptoms may be physical (physical exhaustion, headaches and back pain, sleeplessness, gastro-intestinal disturbances), behavioural (proneness to irritation, proneness to anger, increased alcohol and drug use, marital and relationship problems, inflexibility in problem-solving), and cognitive/affective (emotional numbness, emotional hypersensitivity, over-identification with patients, grief and sadness, pessimism and hopelessness, boredom, cynicism, indecision, and inattention (Visintini et al., 1996; Miller, 1995). Some studies mention that in HIV-related samples of doctors, suicide rates are two or three times higher than in general samples, both in earlier studies (Emerson & Hughes, 1986) and more recent ones (Boxer, Burnett & Swanson, 1995; Carpenter, Swerdlow & Fear, 1997; Juel, Mosbeck & Tøttruphansen, 1999).

While a great deal of the literature examines links between workers and burnout to examine who may be prone to this problem and what style of functioning may place a worker at risk of burnout, the work context and management style may also hold the key to staff dissatisfaction, stress and burnout. Many health workers have not had sufficient preparation for the emotional reality of their work and its subsequent impact on their personal functioning.

METHODOLOGICAL AND PSYCHOMETRIC INCONSISTENCIES

Generally, data on burnout levels, stress factors, the most efficient coping styles, personal commitment and the relationships with sociodemographic variables

Table 1: Methods

Authors	N	Sample	Country	Design	Instruments
Miller and Gillies, 1996	161	Oncologists	England	Transversal	MBI (1982) GHQ (1988)
Nesbitt and Ross, 1996	155	Volunteers	US	Transversal	MBI (1981) HIV Volunteer Inventory (1991) GHQ (1979) TRIG (1987)
Bennett Ross and Sunderland, 1996	174	Volunteers	US	Transversal	MBI (1981) HIV Volunteer Inventory (1991) AIS (1991, 1994)
Visintini and Campanini, 1996	410	Nurses	Italy	Transversal	MBI (1981) AIS (1991)
Maslanka, 1996	444 (589)	Volunteers	US	Longitudinal (3 years)	MBI (1986) HIV-related events (1988) PERI Scale (1978)
Bellani and Furlani, 1996	194	H e a l t h workers	Italy	Transversal	MBI (1981) AIQ (1976) 16PF (1970) ASQ and CDQ (1976)
Claxton Catalan and Burgess, 1998	324	Volunteers	England	Transversal	MBI (1981) HAD (1983) Calvert Motivational Checklist (1991)
Hayter, 1999	30	Nurses	England	Transversal	MBI (1984) AIS (1995)
Ross, Greenfield and Bennett, 1999	76 (174)	Volunteers	US	Longitudinal (2 years)	MBI (1981) HIV Volunteer Inventory (1991) GHQ (1979) TRIG (1987)
Gueritault-Chalvin et al., 2000	445	Nurses	US	Transversal	MBI (1986) Ways of Coping (1984) Internal-External Locus of Control (1966)
Lert, Chastang and Castano, 2001	670	Physicians	France	Transversal	MBI (1986) GHQ (1972) CMHQ (1996)
Brown et al., 2002	75 (213)	H e a l t h workers	US	Longitudinal (4 years)	MBI (1986) Perceived job stress and satisfaction (1992)

Note: The N column (subjects) shows in brackets the number of individuals who began the longitudinal study.

Table 2: *Analyses*

Authors	Prevalence in burnout	Correlation	ANOVA	MANOVA	Regression
Miller and Gillies, 1996	Yes	-	Yes	Yes	Yes
Nesbitt and Ross, 1996	-	Yes	-	-	Yes
Bennett, Ross and Sunderland, 1996	-	Yes	Yes	-	Yes
Visintini and Campanini, 1996	Yes	-	Yes	-	Yes
Bellani and Furlani, 1996	-	Yes	Yes	-	Yes
Claxton, Catalan and Burgess, 1998	-	Yes	Yes	-	Yes
Hayter, 1999	Yes	Yes	Yes	-	-
Ross, Greenfield and Bennett, 1999	-	Yes	-	-	Yes
Gueritault-Chalvin et al., 2000	-	Yes	-	-	Yes
Lert, Chastangand Castano, 2001	-	-	Yes	Yes	Yes
Brown et al ., 2002	Yes	-	Yes	-	Yes

Note: *It is shown some of the analyses more used.*

such as age, gender and professional experience, are quite inconsistent. One explanation for this variance in the data would be the heterogeneity of the sample (nurses, physicians, and volunteers), organizational group of reference, specialties considered, work status and gender. Another possible explanation is the diversity of methodologies. Methodological variability for some relevant studies with a high citation index from the period 1996-2003 is shown in Table 1.

Furthermore, the psychometric problems of the MBI (Maslach & Jackson, 1981, 1986) (the main questionnaire used in all the reviewed studies) must be considered with respect to construct validity (Burke, 1989; Koeske & Koeske, 1989; Schaufeli & Van Dierendonck, 1995), boundary points used for defining burnout levels (Schaufeli & Van Dierendonck, 1995), and the implications of the three dimensions for defining burnout (Golembiewski & Munzenrider, 1983; Van Dierendonck, Schaufeli & Sixma, 1994).

Another complementary problem is that the methodological procedure used is not always the appropriate one. In some cases, studies using transversal methodology employ causal reasoning (Gueritault-Chalvin et al., 2000; Nesbitt & Ross, 1996). The difficulties of comparing data increase when the analysis processes are qualitatively different, even when conceptual foci or hypotheses are similar. (see Table 2).

Some research on intervention programmes for preventing burnout consequences has been developed (Eakin & Taylor, 1990; Ross, Altemer & Russell, 1989), but there are currently hardly any scientific publications that experimentally validate training and in-

tervention programmes, especially in volunteers, even though there are intervention guidelines drawn up by UNICEF, the WHO and the World Bank.

Bennett (1995) pointed out that AIDS-related care requires important work on communication with patients and relatives and the service provided to them, and she made various intervention programmes to help the development of adaptative coping styles in health workers and consequently decreased burnout levels related to individual motivation. In professional health workers, emotional exhaustion feelings can be associated with time pressure, lack of authority/autonomy, interaction problems with patients and confrontation with death.

Some issues for the prevention and treatment of burnout are related to nurses' opportunities to discuss their professional worries. Phone lines were even set up in an attempt to decrease their anxiety. Alternative therapies have also been used, including meditation, aromatherapy, acupuncture and massage techniques (Van Dierendonck et al., 1994). Reilly (1994) pointed out that nurses must be trained to recognize and cope with stress, and proposed that hospitals should develop social support programmes, time-management techniques for training nurses to manage their time and organize their tasks, and stress-management technique programmes. As regards co-workers, it is proposed that several strategies should be used to decrease organizational stress, through staff team work, meetings and conferences, paving the way for emotional expression, social support, humour, spirituality and organization (Lloyd, 1995).

Although there is little information on the impact of intervention programmes on burnout, there are suggestions that HIV/AIDS education programmes can reduce health carers' anxiety and stress, and that mutual support groups can reduce staff turnover.

CONCLUSIONS

In spite of the theoretical, conceptual and methodological obstacles discussed in this review, it seems important to establish the demographic, situational and general burnout parameters in HIV/AIDS workers. This may clarify which aspects are more general, and therefore situationally stable, even though identifying these differences may involve an exhaustive analysis or meta-analysis of these parameters. In principle, it would seem necessary to carry out intra-group analyses, since the heterogeneity in stressors and buffers means that each burnout sample is influenced in a different way.

As regards formal HIV caregivers, there are few studies about significant differences in burnout prevalence. It has been shown that HIV nurses are more vulnerable to high levels of burnout, by comparison with other health workers (Plante & Bouchard, 1995; Faura et al., 1995), but other studies suggest that HIV physicians are the group with the highest burnout levels (Bennett et al., 1994; Garside, 1993; Deckhard et al., 1994). These inconsistencies could be explained by the different organizational conditions.

The differences and similarities between health care workers and volunteers need to be clarified, and their significance considered. Some authors argue that burnout levels are higher in informal caregivers than in professionals (Oktay, 1992; Miller, 1993; Folkman et al., 1994). These data can be explained by the fact that volunteers may lack training and skills, as well as having to deal with role conflicts. Meanwhile, studies in relation to sociodemographic variables do not appear to be conclusive, though youth is considered as a risk factor in most of them, probably because of lack of experience and unrealistic job expectations.

As it has been shown, most caregivers experience stress caused by the specific nature of the job, that is, treating a chronic illness that especially affects young people. Also, lack of communication between caregivers and supervisors is a common cause of stress related to job environment. AIDS can have important effects on personal relationships and family dynamics,

causing stress on the main caregivers and external family helpers.

As regards burnout consequences in professionals, they are more intensive in caregivers who are also infected, or in the same risk group. For example, in young HIV physicians, suicide rates are two or three times higher than the same sociodemographic sample (Rose & Rosow, 1973; Richings, Khara & McDowell, 1986). Substance abuse is 30 times higher in physicians than in a general sample (Rucinski & Cybulska, 1985), 1% even being drug-dependent, and alcohol consumption is also higher (Murray, 1976). This data is so significant that some authors consider these statistics to be the consequences not only of stress, but also of certain childhood problems and personality traits. It has also been mentioned that physicians and nurses feel that they fulfil their obligations in treating HIV/AIDS patients, but have negative feelings because most health systems do not use psychological approaches.

Intervention programmes are recommended for helping staff to deal with difficult aspects of their work. Such programmes should involve stress management techniques, coping techniques, approaches for dealing with death, staff support and professional supervision.

In research on the burnout process in professionals and volunteers working with HIV/AIDS it is important to note that the number of studies and data obtained up to now are relatively scarce, and that most of the research has been carried out in urban areas and in industrialized countries. This leaves a knowledge gap in relation to cultural differences, prevalence levels, demographic patterns in AIDS infection and the different HIV/AIDS caregiver roles that may be affecting the incidence and development of burnout in different countries and communities. It should also be borne in mind that a substantial proportion of those working with HIV-infected patients are not health workers, but volunteers. Although this group have to face the same risks as the health workers, their work situation is different in many aspects, which must all be taken into consideration (Maslach & Ozer, 1995). Finally, it is important to have reliable and valid measures available for testing hypotheses on the relationship between AIDS care and burnout.

This review has attempted to consider the literature on burnout, considering different types of care workers, and variables such as sample, sociodemographics, stressors, buffers and consequences. Future research

in this area is necessary to obtain more conclusive data from a more global paradigm of the burnout process, with a view to the development of prevention and intervention programmes for the different health workers treating HIV/AIDS patients.

REFERENCES

- Barbour, R.S. (1995). The implications of HIV/AIDS for a range of workers in the Scottish context. *AIDS Care*, 7, 521-35.
- Bellani, M.L., Furlani, F., Gneccchi, M., Pezzotta, P., Trotti, E.M. & Bellotti, G.G. (1996). Burnout and related factors among HIV/AIDS health care workers. *AIDS Care*, 8, 207-21.
- Bennett, L., Kelaher, M. & Ross, M. (1994). Quality of life in health care professionals: Burnout and its associated factors in HIV/AIDS related care. *Psychology & Health*, 18, 273-83.
- Bennett, L., Kelaher, M. & Ross, M.W. (1993). *Burnout and coping*. In: Van Dis, Van Dongen (Eds.), *Burnout in HIV/AIDS health care volunteers* pp. 41-51. Amsterdam: University of Amsterdam Press.
- Bennett, L. & Kelaher, M. (1994). Longitudinal predictors of burnout in HIV/AIDS health professionals. *Australian Journal of Public Health*, 18, 334-6.
- Bennett, L., Ross, M.W. & Sunderland, R. (1996). The relationship between recognition, rewards and burnout in AIDS caring. *AIDS Care*, 8, 145-53.
- Bennett, L. (1991). The experience of nurses working with hospitalized AIDS patients. *Australian Journal of Social Issues*, 27, 125-43.
- Bennett, L. (1995). *The Sydney Study: Interventions to assist responses of health care professionals in HIV/AIDS*. In: Bennett, L., Miller, D. & Ross, M. (Eds.), *Health Workers and AIDS: Research, intervention and current issues in burnout and response*. Chur, Switzerland: Harwood Academic Publishers.
- Blumenfield, M., Sith, P.J., Milazzo, J., Seropian, S. & Wormser, G.P. (1987). Survey of attitudes of nurses working with AIDS patients. *General Hospital Psychiatry*, 9, 58-63.
- Bolle, J.L. (1988). Supporting the deliverers of care: strategies to prevent burnout. *The Nursing Clinics of North America*, 23, 843-50.
- Boxer, P.A., Burnett, C. & Swanson, N. (1995). Suicide and occupation: a review of the literature. *Journal of Occupational and Environmental Medicine*, 37, 442-52.
- Brown, L.K., Schultz, J.R., Forsberg, A.D., King, G., Kocik, S.M. & Butler, R.B. (2002). Predictors of retention among HIV/hemophilia health care professionals. *General Hospital Psychiatry*, 24, 48-54.
- Brown, L.K., Stermoch, A.C., Ford, H.H. & Geary, M. (1999). Emotional reactions of hemophilia health care providers. *Haemophilia*, 5, 127-31.
- Burke, R.J. (1989). Toward a phase model of burnout. Some conceptual and methodological concerns. *Group of Organizational Study*, 14, 23-32.
- Calvert, G.M., Flynn, R., Fraser, P. & Long, J. (1991). *Volunteers' motivation and the Terrence Higgins Trust*. Proceedings of the British Psychology Society Conference; London.
- Carpenter, L.M., Swerdlow, A.J. & Fear, N.T. (1997). Mortality of doctors in different specialties: findings from a cohort of 20,000 NHS hospital consultants. *Occupational and Environmental Medicine*, 54, 388-95.
- Catalan, J., Burgess, A., Pergami, A., Hulme, N., Gazzard, B. & Phillips, R. (1996). The psychological impact on staff of caring for people with serious diseases: The case of HIV infection and oncology. *Journal of Psychosomatic Research*, 40, 425-35.
- Claxton, R.P., Catalán, J. & Burgess, A.P. (1998). Psychological distress and burnout among buddies: demographic, situational and motivational factors. *AIDS Care*, 10, 175-90.
- Deckhard, G., Meterko, M. & Field, D. (1994). Physician burnout: An examination of personal, professional, and organizational relationships. *Medical Care*, 32, 745-54.
- Delph, Y. (1991). *El SIDA: La perspectiva del médico (Aportes de la ética y el derecho al estudio del SIDA No. 530)*. Washington, DC: Organización Panamericana de la Salud.
- Douglas, J., Kalman, C.M. & Kalman, T.P. (1985). Homophobia among physicians and nurses: an empirical study. *Hospital and Community Psychiatry*, 36, 1309-11.
- Dreidger, S.M. & Cox, D. (1991). Burnout in nurses who care for PWAs. *AIDS Patient Care*, 2, 197-203.
- Dunkel, J. & Hatfield, S. (1986). Counter-transference issues in working with people with AIDS. *Social Work*, 31, 114-7.
- Eakin, J.M. & Taylor, K.M. (1990). The psychosocial impact of AIDS on health workers. *AIDS*, 4, 257-262.

- Emerson, H. & Hughes, H. (1976). Death rates of male white physicians in the United States. *American Journal of Public Health*, 16, 1088-93.
- Faura, T., Roige, M. & Serra, R. (1995). The prevalence of the hospitalisation and primary care nursing staff burnout syndrome. *Enfermería Clínica*, 5, 105-10.
- Folkman, S., Chesney, M.A. & Christopher-Richards, A. (1994). Stress and coping in caregiving partners of men with AIDS. *The Psychiatric Clinics of North America*, 17, 35-53.
- Francis, P.A. (1989). Moral beliefs of physicians, medical students, clergy, and lay people concerning AIDS. *Journal of the National Medical Association*, 87, 114-7.
- Freudenberger, J.H. (1974). Staff burnout. *Journal of Social Issues*, 30, 159-65.
- Gallop, R.M., Lancee, W.J., Taerk, G., Coates, R.A. & Fanning, M. (1992). Fear of contagion and AIDS: nurses' perception of risk. *AIDS Care*, 4, 103.
- Garrett, C. (1999). *Stress, coping, empathy, secondary traumatic stress and burnout in health care providers working with HIV infected individuals*, Unpublished doctoral thesis.
- Garside, B. (1993). Physicians mutual aid group: Response to AIDS-related burnout. *Health & Social Work*, 18, 259-67.
- Gillespie, D.F. & Numerof, R.E. (1991). Burnout among health service providers. *Administration and Policy in Mental Health*, 18, 161-71.
- Gilman, R. (1991). From resistances to rewards: social workers' experiences, and attitudes toward AIDS. *Journal of Contemporary Human Services*, 593-601.
- Glass, D.C., McKnight, J.D. & Valdimarsdottir, H.B. (1993). Depression, burnout, and perceptions of control in hospital nurses. *Journal of Consulting and Clinical Psychology*, 61, 147-55.
- Golembiewski, R.T. & Munzenrider, R. (1983). Testing the phase models of burn-out: mappings on a cluster of worksite descriptors. *Journal of Health and Human Resources Administration*, 374-92.
- Gordon, J.H., Ulrich, C., Feeley, M. & Pollack, S. (1993). Staff distress among haemophilia nurses. *AIDS Care*, 5, 371-9.
- Gueritault-Chalvin, V., Kalichman, S.C., Demi, A. & Peterson, J.L. (2000). Work-related stress and occupational burnout in AIDS caregivers: test of a coping model with nurses providing AIDS care. *AIDS Care*, 12, 149-61.
- Guinan, J.J., McCallum, L.W., Painter, L., Dykes, J. & Gold, J. (1991). Stressors and rewards of being an AIDS emotional support volunteer: a scale for use by care-givers for people with AIDS. *AIDS Care*, 3, 137-50.
- Hare, J., Pratt, C.C. & Andrews, D.A. (1988). Predictors of burnout in professional and paraprofessional nurses in hospitals and nursing homes. *International Journal of Nursing Studies*, 25, 105-15.
- Haviland, M.L., Healton, C.G., Weinberg, G.S., Messeri, P.A., Aidala, A.A., Jetter, D., et al. (1997). Delivering HIV/AIDS services: the professional care provider speaks out. *American Journal of Preventive Medicine*, 13(6 Suppl), 12-8.
- Hayter, M. (1999). Burnout and AIDS care-related factors in HIV community Clinical Nurses Specialists in the North of England. *Journal of Advanced Nursing*, 29, 984-93.
- Horstman, W. & McKusick, L. (1986). *The impact of AIDS on the physician*. In L. McKusick (Ed.), *What to do about AIDS*, (pp.63-74), Berkeley: University of California Press.
- Janis, I.L. & Rodin, J. (1979). *Attribution, control, and decision making: Social Psychology and health care*. In: Stone GC, Cohen F, Adler NE, (Eds.), *Health Psychology* (pp. 487-521). San Francisco: Jossey-Bass.
- Juel, K., Mosbech, J. & Tøttruphansen, E. (1992). Mortality and causes of death among Danish medical doctors, 1973-1992. *Journal of Epidemiology*, 28, 456-60.
- Keinan, G. & Melamed, S. (1987). Personality characteristics and proneness to burnout: a study among internists. *Stress Medicine*, 3, 307-15.
- Klonoff, E.A. & Ewers, D. (1990). Care of AIDS patients as a source of stress to nursing staff. *AIDS Education and Prevention*, 2, 338-348.
- Koeske, G.F. & Koeske, R.D. (1989). Construct validity of the Maslach burnout inventory: a critical review and reconceptualization. *Journal of Applied Behavioral Science*, 25, 131-44.
- Leiter, M. (1991). The dream denied: professional burnout and the constraints of human service organizations. *Canadian Psychiatry*, 32, 547-55.
- Lert, F., Chastang, J.F. & Castano, I. (2001). Psychological stress among hospital doctors caring for HIV patients in the late nineties. *AIDS Care*, 13, 763-78.

- Lert, F. & Marne, M.J. (1992). Hospital care for drug users with AIDS or HIV infection in France. *AIDS Care*, 4, 333-8.
- Lloyd, G.A. (1995). *Social workers responses to HIV Disease*. In: Bennett L, Miller D, Ross M (Eds.), *Health Workers and AIDS: Research, intervention and current issues in burnout and response*. Chur, Switzerland: Harwood Academic Publishers.
- Martin, D.A. (1990). Effects of ethical dilemmas on stress felt by nurses providing care to AIDS patients. *Critical Care Nursing Quarterly*, 12, 53-62.
- Maslach, C. & Jackson, S. (1981). The measurement of experienced burnout. *Journal of Occupational Behavior*, 2, 99-113.
- Maslach, C. & Jackson, S.E. (1982). *Burnout in health professions: a social psychological analysis*. In: Sanders GS, Suls J (Eds.), *Social Psychology of Illness* (pp227-51) London: Lawrence Erlbaum.
- Maslach, C. & Jackson, S.E. (1986). *Maslach Burnout Inventory Manual*. 2nd ed. Palo Alto, CA: Consulting Psychologists Press.
- Maslach, C. & Ozer, E. (1995). *Theoretical issues related to Burnout in AIDS health workers*. In: Bennett L, Miller D, Ross M (Eds.), *Health Workers and AIDS: Research, intervention and current issues in burnout and response*. Chur, Switzerland: Harwood Academic Publishers.
- Maslanka, H. (1996). Burnout, social support and AIDS volunteers. *AIDS Care*, 8, 195-206.
- Masterson-Allen, S., Mor, V., Laliberte, L. & Montiero, L. (1985). Staff burnout in a hospice setting. *Hospice Journal*, 1, 1-15.
- McCann, K. & Wadsworth, E. (1992). The role of informal carers in supporting gay men who have HIV related illness: What do they do and what are their needs? *AIDS Care*, 4, 25-34.
- Miller, D. (1991). Occupational morbidity and burnout: lessons and warnings for HIV/AIDS carers. *International Review of Psychiatry*, 3, 439-449.
- Miller, D. (1992). Staff stress in HIV health care workers. *AIDS Care*, 4, 429-432.
- Miller, D. (1993). HIV/AIDS health workers stress and stress prevention. *AIDS Care*, 5, 517-21.
- Miller, D. (1995). Stress and burnout among health-care staff working with people affected by HIV. *British Journal of Guidance and Counselling*, 23, 19-32.
- Miller, D. (1995). *The UK Multicentre Occupational Morbidity Study (MOMS): Issues of Methodology, volunteer bias and preliminary findings on preferences for staff support in HIV/AIDS health staff*. In: Bennett L, Miller D, Ross M (Eds.), *Health Workers and AIDS: Research, intervention and current issues in burnout and response*. Chur, Switzerland: Harwood Academic Publishers.
- Miller, D. & Gillies, P. (1996). Is there life after work? Experiences of HIV and oncology health staff. *AIDS Care*, 8, 167-82.
- Murray, R.M. (1976). Characteristics and prognosis of alcoholic doctors. *British Medical Journal*, 2, 1537-9.
- Nashman, H.W., Hoare, C.H. & Heddesheimer, J.C. (1990). Stress and satisfaction among professionals who care for AIDS patients: an exploratory study. *Hospitals Topics*, 68, 22-28.
- Nesbitt, W.H. & Ross, M.W. (1996). Prediction of grief and HIV/AIDS-related burnout in volunteers. *AIDS Care*, 8, 137.
- Oktay, J.S. (1992). Burnout in hospital social workers who work with AIDS patients. *Social Work*, 37, 432-9.
- Palsson, M., Hallberg, I.R., Norburg, A. & Bjorvell, H. (1996). Burnout, empathy and sense of coherence among Swedish district nurses before and after clinical supervision. *Scandinavian Journal of Caring Science*, 10, 19-26.
- Parsons, C.D.F. (1995). *HIV/AIDS nursing in south-east Asia and Australia*. In: Bennett L, Miller D, Ross M (Eds.), *Health Workers and AIDS: Research, intervention and current issues in burnout and response*. Chur, Switzerland: Harwood Academic Publishers.
- Peragallo, N., Ferrer, X. & Guarda, L.B. (1995). *The impact of HIV/AIDS on health workers in South America*. In: Bennett L, Miller D, Ross M (Eds.), *Health Workers and AIDS: Research, intervention and current issues in burnout and response*. Chur, Switzerland: Harwood Academic Publishers.
- Perreault, R.M., Scherer, E. & Adolph, R. (1996). *Challenges of grief and multiple loss: responding to community-based care providers for people with HIV/AIDS*. Proceedings of the International Conference on HIV/AIDS; July 8; Vancouver. Canada.
- Plante, A. & Bouchard, L. (1995). Occupational stress, burnout, and professional support in nurses working with dying patients. *Omega*, 32, 93-109.
- Randolph, G.L., Price, J.L. & Collins, J.R. (1986). The effects of burnout prevention training on burnout symptoms in nurses. *Journal of continuing education in nursing*, 17, 43-9.
- Raphael, B., Kelly, B., Dunne, M. & Greig, R. (1990). Psychological distress among volunteer AIDS counsellors. *The Medical Journal of Australia*, 152, 275.

- Reilly, N.P. (1994). Exploring a paradox: Commitment as a moderator of the stressor-burnout relationship. *Journal of Applied Social Psychology*, 24, 397-414.
- Richings, J.C., Khara, G.S. & McDowell, M. (1986). Suicide in young doctors. *British Journal of Psychiatry*, 149, 475-8.
- Rose, K.D. & Rosow, I. (1973). Physicians who kill themselves. *Archives of General Psychiatry*, 29, 800-5.
- Ross, E. (1993). Preventing burnout among social workers employed in the field of AIDS/HIV. *Social Work in Health Care*, 18, 91-105.
- Ross, M.W. & Seeger, V. (1988). Determinants of reported burnout in health professionals associated with patients with AIDS. *AIDS & Society*, 2, 395-97.
- Ross, M.W., Greenfield, S.A. & Bennett, L. (1999). Predictors of dropout, and burnout in AIDS volunteers: a longitudinal study. *AIDS Care*, 11, 723-31.
- Ross, R.R., Altemier, M. & Russell, D.W. (1989). Job stress, social support and burnout among counselling centre staff. *Journal of Counselling Psychology*, 46, 464-70.
- Rucinski, J. & Cybulska, E. (1985). Mentally ill doctors. *British Journal of Hospital Medicine*, 33, 90-4.
- Schaufeli, W.B. & Van Dierendonck, D. (1995). A cautionary note about the cross national and clinical validity of cut-off points for the Maslach Burnout Inventory. *Psychological Reports*, 76, 1083-90.
- Seeley, J., Kajura, E., Bachengana, C., Okongo, M., Wagner, U. & Mulder, D. (1993). The extended family and support for people with AIDS in a rural population in west Uganda: A safety net with holes? *AIDS Care*, 5, 117-22.
- Silverman, D.C. (1993). Psychosocial impact of HIV-related caregiving on health providers: a review, and recommendations for the role of psychiatry. *American Journal of Psychiatry*, 150, 705-12.
- Siminoff, L.A., Erlen, J.A. & Lidz, C.W. (1990). Stigma, AIDS, and quality of nursing care: state of the science. *Journal of Advanced Nursing*, 16, 262-9.
- Slone, M. & Stephany, T. (1995). Stressors of hospice home care nurses caring for AIDS patients: A pilot study. *American Journal of Hospice and Palliative Care*, 12, 32-6.
- Smyser, M.S., Bryce, J. & Joseph, J.G. (1990). AIDS related knowledge, attitudes and precautionary behaviours among emergency medical professionals. *Public Health Reports*, 105, 496-504.
- Strathdee, S., Flannery, J. & Graydon, D. (1991). Stressors in the AIDS hospice environment. *AIDS Patient Care*, 8, 82-9.
- Tannenbaum, J. & Butler, R.B. (1992). Reducing staff stress: a multicenter hemophilia support group. *AIDS Patient Care*, 21-4.
- Van Dierendonck, D., Schaufeli, W.B. & Sixma, H.J. (1994). Burnout among general practitioners: a perspective from equity theory. *Journal of Social and Clinical Psychology*, 13, 86-100.
- Van Servellen, G. & Leake, B. (1994). Burnout in hospital nurses: a comparison of AIDS, oncology, general medical and intensive-care unit nurse samples. *Journal of Professional Nursing*, 9, 169-77.
- Visintini, R., Campini, E., Fossati, A., Bagnato, M., Novella, L. & Caffei, C. (1996). Psychological stress in nurses' relationships with HIV-infected patients: the risk of burnout syndrome. *AIDS Care*, 8, 183-94.
- Williams, M.J. (1988). Gay men as 'buddies' to persons living with AIDS and ARC. *Smith College Studies in Social Work*, 59, 38-51.

