Journal of Social and Clinical Psychology, Vol 20, No 1, 2001, pp 82-98

BURNOUT CONTAGION AMONG GENERAL PRACTITIONERS

ARNOLD B. BAKKER AND WILMAR B. SCHAUFELI
Utrecht University, The Netherlands

HERMAN J SIXMA
Netherlands Institute for Primary Health Care (NIVEL), Utrecht, The Netherlands

WILLEM BOSVELD
O+S Consultancy, Amsterdam, The Netherlands

This study used a representative sample of 507 general practitioners (GPs) to test the hypothesis that burnout is contagious. Following a two-dimensional conceptualization of burnout, it is assumed that burnout is comprised of emotional exhaustion and negative attitudes (i e., depersonalization and reduced personal accomplishment). We hypothesized that perceived burnout complaints among colleagues and susceptibility to emotional contagion would make an independent contribution to explaining variance in negative attitudes through their influence on emotional exhaustion. The findings of a series of LISREL-analyses support this burnout contagion model. In addition, susceptibility to the emotions expressed by others had a moderating effect on the relationship between perceived burnout complaints among colleagues and individual GPs' emotional exhaustion. Burnout contagion was most pronounced among those GPs who were, in general, highly susceptible to emotional stimuli. These findings, as well as possible routes to burnout contagion are discussed in terms of recent theoretical work on emotional contagion.

> "Miss Jones gradually became more discouraged, so that by the end of the first week she was sharing the feelings and attitudes of the other staff members and functioning in the same ineffective way"
> (Schwartz & Will, 1953, pp. 337-353)

This research was financially supported by the Dutch Society for General Practitioners (VVAA), and by grants #580-01-010 "Fatigue at work" and #310014 "Burnout Contagion" from the Dutch organization for scientific research (NWO)

Address correspondence to Arnold Bakker, Department of Social and Organizational Psychology, Utrecht University, Heidelberglaan 1, P O Box 80 140, 3508 TC Utrecht, The Netherlands E-mail A Bakker@fss uu nl

Is it possible that burnout is communicated, like a virus, from one human service professional to another? Since Schwartz and Will (1953) described how a nurse who had just started her career developed feelings of failure and resentment because of the negative attitudes of her new colleagues, several researchers have argued that burnout can be contagious (e.g., Cherniss, 1980; Edelwich & Brodsky, 1980; Schaufeli, 1990). However, to date, evidence in support of the burnout contagion hypothesis is scarce, and primarily anecdotal

In the present study, we investigated burnout contagion among general practitioners (GPs) in The Netherlands. In the Dutch health care system, GPs have organized their practices around each others' timetables, and are therefore able to take over each others' practices during the weekends and holidays. They therefore collaborate extensively, and meet on a regular basis to talk about all kinds of organizational matters, as well as about their patients' health status. During these interactions, GPs may infect each other with the burnout "virus", for example, when they communicate their negative attitudes toward patients to each other.

We will first describe the burnout syndrome, and its prevalence among GPs. Second, the processes by which emotions may transfer from one person to another will be described by examining recent theoretical and empirical work on *emotional* contagion. Third, we will describe the, still limited, evidence in the literature suggesting that burnout contagion exists. On the basis of this literature, we propose a model of burnout contagion, which will be tested among a representative sample of Dutch GPs.

BURNOUT AMONG GENERAL PRACTITIONERS

Burnout has been defined as a specific kind of occupational stress reaction among human service professionals, as a result of the demanding and emotionally charged relationships between caregivers and their recipients (Maslach & Schaufeli, 1993). Feelings of emotional exhaustion or energy depletion are generally considered a core symptom of the burnout syndrome (Pines & Aronson, 1981; Shirom, 1989). In addition, two other central characteristics of burnout have been documented in the literature: the development of negative, cynical attitudes about the recipients of one's service or care (depersonalization), and the development of negative attitudes regarding oneself in relation to the job (reduced personal accomplishment) (Maslach, 1993; Maslach & Jackson, 1986).

Several theorists (e.g., Lief & Fox, 1963; Maslach, 1982) have argued that the development of an attitude of "detached concern" is the ideal

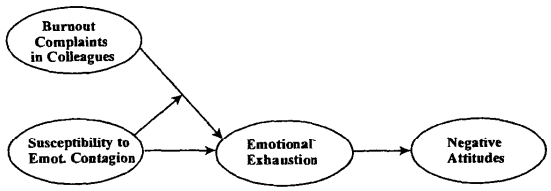

FIGURE 1 The Model of Burnout Contagion

tional exhaustion. That is, perceived burnout complaints will particularly have a positive relationship with emotional exhaustion for those GPs who are highly susceptible to emotional contagion.

(3) Emotional exhaustion mediates the relationship between perceived burnout complaints among colleagues and susceptibility to emotional contagion on the one hand, and negative attitudes on the other.

METHOD

PARTICIPANTS AND PROCEDURE

Participants were drawn from a registration system at The Netherlands Institute for Primary Health Care This system, encompassing virtually all GPs established in The Netherlands, allowed us to draw a national exemplary sample. A representative sample of 843 practitioners received a mailed questionnaire about stress in general practice. A total of 507 GPs filled out and returned the questionnaire (response = 60%). The sample included 426 (84%) male and 81 (16%) female practitioners. Their mean age was 46 years (*sd* = 6.5). Most participants had considerable working experience in general practice: 0 - 4 years (20%), 5 -9 years (23%), 10 - 14 years (24%), 15 - 19 years (16%), 20 - 29 years (12%), 30 years or more (5%) Virtually all GPs (98 5%) indicated that they collaborated extensively (for example, take over each others' practice during the weekends and holidays).

MEASURES

Perceived Burnout Complaints among Colleagues (BC) was assessed with two items, namely: "According to you, how many of your colleagues are 'burned-out'?", and "How many of your colleagues complain that they have physical or psychological problems carrying out their work?" (1 = none of my colleagues, 5 = most of my colleagues).

Susceptibility to Emotional Contagion (SEC) was measured with an emotional contagion scale developed by Stiff et al. (1988). The present study used 6 items[1], including "I cannot continue to feel O.K. if people around me are depressed", and "I tend to remain calm even though those around me worry" (reverse coded). For each of the items, answers could be given on a scale ranging from 1 "completely disagree to" 5 "completely agree". Thus, the higher the SEC-score, the more susceptible to emotional contagion the person is said to be.

Burnout was measured using the Maslach Burnout Inventory (Maslach & Jackson, 1986), originally consisting of three subscales: emotional exhaustion, depersonalization, and personal accomplishment. The items, 12 "I feel energetic", and 16 "Working with people directly puts too much stress on me" were omitted, as suggested by Byrne (1993) and Schaufeli and Van Dierendock (1993). Both studies have shown that these items do not load on the intended factors. Following the two-dimensional conceptualization of burnout of Schaufeli and Van Dierendonck (1993), it is assumed that emotional exhaustion constitutes the first dimension of burnout. Emotional exhaustion was measured with 8 items, for example, "I feel emotionally drained from my work". The second burnout dimension, negative attitudes (towards the patients and towards oneself in relation to the job), includes the two other MBI-dimensions: personal accomplishment (7 items, including "I feel I am positively influencing other people's lives through my work"), and depersonalization (5 items, including "I feel I treat some of my patients as if they were impersonal objects"). All items were scored on a 7-point rating scale, ranging from 0 "never" to 6 "every day".

MODEL TESTING

Our burnout contagion model was tested through LISREL 8 structural equation analyses (Jöreskog & Sörbom, 1993), and the parameters in the model were estimated with the Unweighted Least-Squares Method. The

1 Unfortunately, one item from the original emotional contagion scale was lost in the translation process

plaints among colleagues on negative attitudes is mediated by emotional exhaustion.

The same pattern of results was obtained when susceptibility to emotional contagion was allowed to have a direct relationship with negative attitudes, in addition to its indirect relationship through emotional exhaustion. Although this modification resulted in a reasonable fit of the model to the data, χ^2 (17) = 25.58, p = .08, AGFI = .98, RMR = .034, the difference between this chi-square value and the chi-square value of the hypothetical model is not significant, Delta χ^2 (1) = 1.90, p < .18. In addition, the standardized parameter of the direct relationship between susceptibility to emotional contagion and negative attitudes was low (path coefficient = .12), and nonsignificant. We concluded that, as predicted, the relationship between susceptibility to emotional contagion and negative attitudes is also fully mediated by emotional exhaustion (cf. Hypotheses 1 and 3).

The final test of our model allowed the interaction term to have a direct relationship with negative attitudes, in addition to its indirect relationship through emotional exhaustion. This modified model fit well to the data, χ^2 (17) = 27.23, p = .06, AGFI = .98, RMR = .035. However, the difference between these two chi-square values was far from significant, Delta χ^2 (1) = .25, p < .63. In addition, the standardized parameter of the direct path from the interaction term to negative attitudes was close to zero (path coefficient = .03), and nonsignificant. These results show that susceptibility to emotional contagion moderates the relationship between perceived burnout complaints among colleagues and emotional exhaustion. A closer examination of the data revealed that, as predicted, burnout contagion was most pronounced among those GPs who were highly susceptible to the emotions expressed by others. More specifically, perceived burnout complaints among colleagues did only have a positive relationship with emotional exhaustion when GPs were highly susceptible to emotional contagion. These findings support our second hypothesis.

Perceived burnout complaints among colleagues, susceptibility to emotional contagion, and the interaction term explained 26% of the variance in emotional exhaustion, and the combination of these three most distal predictor variables and emotional exhaustion explained 75% of the variance in negative attitudes.

DISCUSSION

The central hypothesis in the present study was that human service professionals may "catch" the negative feelings, the cynical attitudes, or the impaired job behaviors of their colleagues through the conscious or unconscious induction of emotional states and behavioral attitudes. The results of this study among general practioners provide preliminary evidence for this burnout contagion hypothesis. Our burnout contagion model was clearly supported by the results of a series of LISREL-analyses. As hypothesized on the basis of theoretical and empirical work on emotional contagion (Hatfield et al., 1994), we found that perceived burnout complaints among colleagues, and individual differences in the susceptibility to emotional contagion are positively associated with emotional exhaustion. Emotional exhaustion, in turn, was positively associated with negative attitudes: The tendency to develop negative, cynical attitudes towards patients, and the tendency to believe that one is no longer effective in working with clients and in fulfilling one's job.

As the present study was not designed to uncover the precise processes responsible for this burnout contagion effect, we can only speculate about the routes to contagion. Research on the etiology of burnout has shown that the syndrome may manifest itself in various ways. Schaufeli (1990) counted almost 100 burnout-symptoms in the literature, including such highly visible behavioral symptoms as hyperactivity, enhanced irritability, an inability to make decisions, and physical fatigue. Moreover, burnout researchers have identified several "social symptoms", including problematic attitudes toward clients (e.g., reduced empathy, cynicism, black humor, stereotyping), and interpersonal conflicts with colleagues (see Burisch, 1989, and Schaufeli, 1990, for overviews). These examples imply that individuals suffering from burnout clearly communicate their symptoms

One possible route to burnout contagion is therefore the unconscious route. That is, human service professionals may become emotionally exhausted when they "automatically" mimic the emotions and behaviors expressed by their colleagues. For example, it is well conceivable that the GPs in the present study caught their colleagues' burnout symptoms unconsciously during their frequent interactions, in which they imitated each others' expressions. One interesting question related to the phenomenon of unconscious contagion is whether the number of colleagues who are burned out (as measured in the present study) is more important than the frequency of interaction with (one or more) burned out colleagues

A second possibility is that burnout contagion occurs consciously. This process may be most prevalent when GPs discuss the health status of their patients with each other, or socialize with one another on the job or in informal meetings. In these situations, the attitudes and emotions of one GP may be transmitted to another GP. For example, GPs who are repeatedly confronted with cynical remarks about patients made by their colleagues, may develop feelings of depersonalization when these

Bentler, P M., & Bonnet, D G. (1980) Significance tests and goodness of fit in the analysis of covariance structures *Psychological Bulletin, 88,* 588-606

Bernieri, F J , Reznick, J S , & Rosenthal, R (1988) Synchrony, pseudosynchrony, and dissynchrony. Measuring the entrainment process in mother-infant interactions *Journal of Personality and Social Psychology, 54,* 1242-1253

Burisch, M (1989). *Das burnout-syndrom Theorie der inneren Erschopfung* [The burnout syndrome A theory of inner exhaustion] Berlin Springer-Verlag.

Byrne, B M (1993) The Maslach Burnout Inventory Testing for factorial validity and invariance across elementary, intermediate, and secondary teachers. *Journal of Occupational and Organizational Psychology, 66,* 197-212.

Cherniss, C (1980). *Professional burnout in human service organizations* New York Praeger

Cordes, C L., & Dougerthy, T W. (1993) A review and integration of research on job burnout *Academy of Management Review, 18,* 621-656

Cordes, C L., Dougerthy, T W , & Blum, M (1997) Patterns of burnout among managers and professionals A comparison of models *Journal of Organizational Behavior, 18,* 685-701

Coyne, J C (1976). Depression and the response of others *Journal of Abnormal Psychology, 85,* 186-193.

Deckard, G , Meterko, M., & Field, D. (1994) Physician burnout. An examination of personal, professional, and organizational relationships *Medical Care, 32,* 745-754

Doherty, R. W , Orimoto, L., Singelis, T M., Hatfield, E., & Hebb, J (1995) Emotional contagion Gender and occupational differences *Psychology of Women Quarterly, 19,* 355-371

Edelwich, J , & Brodsky, A (1980) *Burnout Stages of disillusionment in the helping professions* New York: Human Sciences Press

Glass, D. C , McKnight, D., & Valdimarsdottir, H (1993). Depression, burnout, and perceptions of control in hospital nurses *Journal of Consulting and Clinical Psychology, 61,* 147-155

Groenestijn, E., Buunk, B P , & Schaufeli, W. B. (1992) Het besmettingsgevaar bij burnout De rol van sociale vergelijkingsprocessen [The danger of burnout contagion. The role of social comparison processes] In R W Meertens, A P. Buunk, P. A M van Lange, & B. Verplanken (Eds), *Sociale psychologie & beinvloeding van intermenselijke en gezondheidsproblemen* (pp. 88-103). The Hague, The Netherlands. VUGA.

Hatfield, E., Cacioppo, J T., & Rapson, R L. (1994) *Emotional contagion* New York Cambridge University Press

Howes, M J , Hokanson, J E , & Lowenstein, D. A (1985) Induction of depressive affect after prolonged exposure to a mildly depressed individual. *Journal of Personality and Social Psychology, 49,* 1110-1113.

Hsee, C K , Hatfield, E , Carlson, J. G., & Chemtob, C. (1990a) *Emotional contagion and its relationship to mood* Unpublished manuscript, University of Hawaii

Hsee, C. K , Hatfield, E , Carlson, J G., & Chemtob, C. (1990b). The effect of power on susceptibility to emotional contagion *Cognition and Emotion, 4,* 327-340.

Joiner, T F , Jr (1994) Contagious depression Existence, specificity to depressive symptoms, and the role of reassurance seeking *Journal of Personality and Social Psychology, 67,* 287-296

Joreskog, K., & Sorbom, D (1993) *LISREL 8 Structural equation modeling with the SIMPLIS command language* Hillsdale, NJ. Lawrence Erlbaum.

Kirwan, M , & Armstrong, D. (1995) Investigation of burnout in a sample of British general practitioners *British Journal of General Practice, 45,* 259-260

Laird, J D. (1984) The real role of facial response in the experience of emotion. A reply to Tourangeau and Ellsworth, and others *Journal of Personality and Social Psychology, 47,* 909-917

Lee, R. T , & Ashforth, B E (1993). A longitudinal study of burnout among supervisors and managers: Comparison between the Leiter and Maslach (1988) and Golembiewski et al (1986) models *Organizational Behavior and Human Decision Processes, 54,* 369-398

Lee, R T., & Ashforth, B E (1996) A meta-analytic examination of the correlates of the three dimensions of job burnout *Journal of Applied Psychology, 81,* 123-133

Leiter, M P (1993) Burnout as a developmental process Consideration of models. In W B Schaufeli, C Maslach, & T Marek (Eds), *Professional burnout Recent developments in theory and research* (pp. 237-250) New York Taylor & Francis

Leiter, M. P , & Durup, J (1994) The discriminant validity of burnout and depression A confirmatory factor analytic study *Anxiety, Stress, and Coping, 7,* 357-373

Leiter, M. P., & Maslach, C (1988) The impact of interpersonal environment on burnout and organizational commitment *Journal of Organizational Behavior, 9,* 297-308.

Lief, H. I , & Fox, R C (1963) Training for "detached concern" in medical students In H I. Lief, V F Lief & N R. Lief (Eds), *The psychological basis of medical practice* (pp. 12-35) New York Harper & Row.

Maslach, C (1982) Burnout A social psychological analysis. In J W Jones (Ed), *The burnout syndrome Current research, theory, interventions* Park Ridge London House

Maslach, C. (1993) Burnout A multidimensional perspective In W B Schaufeli, C Maslach, & T Marek (Eds), *Professional burnout Recent developments in theory and research* (pp 19-32) New York Taylor & Francis

Maslach, C., & Jackson, S E (1986) *MBI Maslach Burnout Inventory, manual research edition* Palo Alto, CA University of California, Consulting Psychologists Press.

Maslach, C , & Schaufeli, W B (1993) Historical and conceptual development of burnout In W B Schaufeli, C Maslach, & T. Marek (Eds), *Professional burnout Recent developments in theory and research* (pp 1-16) New York Taylor & Francis

Myerson, S (1991) Doctors' methods of dealing with "ongoing" stress in general practice *Medical Science Research, 19,* 267-269.

McIntosh, D N , Druckman, D , & Zajonc, R B (1994) Socially induced affect In D Druckman, & R A Bjork (Eds), *Learning, remembering, believing Enhancing human performance* (pp 251-276) Washington, DC National Academy Press.

Pines, A., & Aronson, E (1981) *Burnout From tedium to personal growth* New York Free Press

Ross, L , Greene, D., & House, P. (1977) The "false consensus effect" An egocentric bias in social perception and attribution processes *Journal of Experimental Social Psychology, 13,* 279-301

Rout, U , & Rout, J K (1993) Stress and the general practitioner Dordrecht, The Netherlands Kluwer Academic Publishers

Schaufeli, W B (1990) *Opgebrand Achtergronden van werkstress bij contactuele beroepen* [Burnout Workstress in human service professions] Rotterdam, The Netherlands. Donker

Schaufeli, W B , & Buunk, B P (1996) Professional burnout In M J Schabracq, J A M. Winnubst & C L Cooper (Eds), *Handbook of work and health psychology* (pp. 311-346) Chichester, England Wiley & Sons, Inc

Schaufeli, W B , Enzmann, D , & Girault, N (1993) Measurement of burnout A review In W B Schaufeli, C Maslach, & T. Marek (Eds), *Professional burnout. Recent developments in theory and research* (pp 199-215) New York Taylor & Francis

Schaufeli, W B., & Van Dierendonck, D (1993) The construct validity of two burnout measures *Journal of Organizational Behavior, 14,* 631-647

Schwartz, M S , & Will, G T (1953) Low morale and mutual withdrawal on a hospital ward *Psychiatry, 16,* 337-353

Shirom, (1989) Burnout in work organizations In C L Cooper & I Robertson (Eds), *International review of industrial and organizational psychology* (pp 25-48) Chichester Wiley & Sons, Inc

Siegman, A W , & Reynolds, M (1982) Interviewer-interviewee nonverbal communications An interactional approach In M Davis (Ed), *Interaction rhythms Periodicity in communicative behavior* (pp 249-278) New York Human Sciences Press

Stiff, J B , Dillard, J P , Somera, L., Kim, H , & Sleight, C (1988) Empathy, communication, and prosocial behavior *Communication Monographs, 55,* 198-213

Uchino, B , Hsee, C K , Hatfield, E , Carlson, J G , & Chemtob, C (1991) *The effect of expectations on susceptibility to emotional contagion* Unpublished manuscript, University of Hawaii

Van Dierendonck, D , Schaufeli, W B , & Sixma, H (1994) Burnout among general practitioners A perspective from equity theory *Journal of Social and Clinical Psychology, 13,* 86-100

Westman, M , & Etzion, D (1995) Crossover of stress, strain and resources from one spouse to another *Journal of Organizational Behavior, 16,* 169-181