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# BURNOUT CONTAGION AMONG GENERAL PRACTITIONERS

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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)

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 coping strategy for human service professionals who are confronted with emotionally charged relationships. Such an attitude blends professional care and commitment with appropriate emotional distance. Unfortunately, the empirical evidence suggests that it is difficult not to cross the thin line between detached concern and depersonalization (e.g., Bakker, Schaufeli, Sixma, Bosveld, & Van Dierendonck, 2000).

From the three burnout dimensions, emotional exhaustion shows the most robust and consistent relationship with job stressors, such as work overload and role problems (Cordes & Dougherty, 1993; Lee & Ashforth, 1996; Schaufeli & Buunk, 1996). Recently, Schaufeli and Van Dierendonck (1993) have shown that burnout can be conceptualized as a two-dimensional construct including emotional exhaustion and negative attitudes. In their validity study among nurses, this two-dimensional burnout model best fit the data. The first dimension consists of emotional exhaustion, and is related to somatic complaints and psychological strain, whereas the second dimension reflects negative attitudes: a sense of depersonalization and reduced personal accomplishment.

Leiter and Maslach (1988) propose a process model of burnout in which emotional exhaustion arises first in response to a demanding environment.

Emotional exhaustion, in turn, evokes negative attitudes towards recipients, as professionals attempt to gain emotional distance from them as a way of coping with their exhaustion. Simultaneously, a negative attitude develops regarding one's accomplishment in the job.

Recently, researchers have provided evidence for this process model of burnout, using cross-sectional (Cordes, Dougherty, & Blum, 1997; Leiter, 1993; Van Dierendonck, Schaufeli, & Sixma, 1994) and longitudinal designs (Bakker et al., 2000; Lee & Ashforth, 1993).

Time pressure, dealing with problem patients, and night calls have been identified as important problems associated with "ongoing" stress in the lives of GPs (Myerson, 1991; Rout & Rout, 1993). It is therefore not surprising that the empirical evidence shows that, when compared to other human service professionals, GPs experience relatively high levels of burnout (e.g., Kirwan & Armstrong, 1995; Van Dierendonck et al., 1994). Deckard, Meterko and Field (1994) - for example - found that no less than 58% of physicians in health maintenance organizations reported high levels of emotional exhaustion, and 35% reported high levels of depersonalization in their patient interactions.

## **EMOTIONAL CONTAGION**

Emotional contagion has been defined as "The tendency to automatically mimic and synchronize facial expressions, vocalizations, postures, and movements with those of another person and, consequently, to converge emotionally" (Hatfield, Cacioppo, & Rapson, 1994; p. 5). The emphasis in this definition is clearly on nonconscious emotional contagion.

Research has indeed shown that, in conversations, people "automatically" mimic the facial expressions, voices, postures, and behaviors of others (Bavelas, Black, Lemery, & Mullett, 1987; Bernieri, Reznick, & Rosenthal, 1988), and that people's conscious experience may be shaped by such facial feedback (Laird, 1984; Siegman & Reynolds, 1982).

There is, however, a second way in which people might "catch" another's emotions. Contagion may also occur via a conscious cognitive process by "tuning in" to the emotions of others. This will be the case when a person tries to imagine how he or she would feel in the position of another, and as a consequence, experiences the same feelings. Thus, the realization that another person is happy or sad may trigger memories of the times we have felt that way, and these reveries may spark similar emotions (Hsee, Hatfield, Carlson, & Chemtob, 1990b). The professional attitude of health care workers that is characterized by empathic concern is likely to foster such a process of consciously "tuning in" to others' emotions.

Regardless of why such contagion might occur, researchers from a wide range of disciplines have described phenomena that suggest that emotional contagion does exist (see Hatfield et al., 1994, and McIntosh, Druckman, & Zajonc, 1994, for overviews). For example, Hsee and colleagues (Hsee et al., 1990a, 1990b; Uchino, Hsee, Hatfield, Carlson, & Chemtob, 1991) documented convincing evidence for emotional contagion by employing controlled laboratory studies. In these experiments, college students were instructed to observe videotapes of another (fictitious) participant relating an emotional experience. They then were asked what emotions they felt as they watched the person describe the happiest and saddest events in his life. The results of these experiments showed that participants “catch” the emotions of the stimulus person. In each of the experiments, both participants’ self-reports, and judges’ ratings of participants’ facial expressions of emotion showed that they were happier when they were watching a stimulus person express happy emotions than when they were watching him express sad feelings .

It seems reasonable to assume that the mechanisms involved in the burnout contagion process are similar to those involved in emotional contagion processes. Of course, the emotions studied in the abovementioned experiments cannot be equated with burnout, but there is also evidence for contagious depression, and depression is a syndrome that is closely related to burnout, most notably the emotional exhaustion dimension (Glass, McKnight&Valdimarsdottir, 1993; Leiter& Durup, 1994). More specifically, depression accounts for approximately 20% of the variance in emotional exhaustion, the core symptom of burnout .

In a classic study on contagious depression, Howes, Hokanson, and Lowenstein (1985) assessed freshmen twice on the Beck Depression Inventory, namely at the start of the semester and three months later. The students were randomly assigned to a room with a mildly depressed roommate or with a non-depressed roommate. The results showed that those students who were assigned to a room with a depressed roommate became increasingly depressed over time. Joiner (1994) reported similar evidence for contagious depression in an independent “roommate- study”. Importantly, this latter study showed that the contagion effect persisted when baseline levels of roommate depression and roommate negative life events were controlled. For more evidence on contagious depression, see Coyne (1976) .

### **MODERATORS OF BURNOUT CONTAGION**

In one of the few studies on burnout contagion reported in the literature, Groenestijn, Buunk and Schaufeli (1992) described empirical evidence for burnout contagion among nurses. As predicted, they found that nurses with a strong need for social comparison information (in contrast with their counterparts) reported higher levels of burnout when they perceived more burnout complaints among colleagues. The reason for this was presumably that particularly nurses who had a high need for social comparison were influenced by the attitudes and behaviors of their colleagues .

Westman and Etzion (1995) examined burnout contagion among 101 couples of male military officers and their wives. They found that wives’ burnout had a positive impact on husbands’ burnout, after controlling for the husbands’ own job stress and coping resources. In addition, husbands’ burnout likewise affected their wives’ burnout. Thus, in this study, burnout transferred from husbands to wives and vice versa .

The results of these two burnout contagion studies are consistent with Hatfield et al.’s (1994) theory on emotional contagion. Hatfield and colleagues have argued that there are several circumstances under which people should be especially likely to catch others’ emotions. Emotional contagion is particularly likely, for example, if individuals pay close attention to others, and if they construe themselves as interrelated to others rather than as independent and unique. In addition, a number of studies have shown that there exist stable individual differences in people’s susceptibility to emotional stimuli (Doherty, Orimoto, Singelis, Hatfield & Hebb, 1995; Stiff, Dillard, Somera, Kim, & Sleight, 1988), and that these individual differences are good predictors of the extent to which people catch positive and negative emotions from others. In the present study, we will examine the relevance of this personality factor for the burnout contagion process .

### **A MODEL OF BURNOUT CONTAGION**

In the present study, we integrated the literature on emotional contagion and burnout to develop a burnout contagion model. Following Leiter and Maslach’s (1988) process model of burnout, we hypothesized that emotional exhaustion arises first as a result of perceived burnout complaints among colleagues, and as a result of susceptibility to emotional contagion (see Figure 1). Two processes may play a role. First, GPs may become emotionally exhausted as a result of the negative feelings, the cynical attitudes, or the impaired job behaviors expressed by their colleagues .

This is shown in Figure 1 by the direct relationship between perceived burnout complaints in colleagues and emotional exhaustion. Second, GPs who are susceptible to emotional stimuli are hypothesized to be most at risk because of the emotionally demanding relationships with patients. That is, they are most vulnerable to catching the negative emotions expressed by their patients, such as fear, anxiety, depressed mood, and worry (cf. Maslach, 1982). This is expressed by the direct relationship between susceptibility to emotional contagion and emotional exhaustion.

In addition, it is hypothesized that, in particular, GPs who are susceptible to emotional contagion catch the burnout complaints expressed by their colleagues. This is depicted in Figure 1 by the moderating impact of susceptibility to emotional contagion on the relationship between perceived burnout complaints in colleagues and emotional exhaustion.

Finally, we predict that emotional exhaustion, in turn, evokes negative attitudes towards patients, as GPs attempt to gain emotional distance from them as a way of coping with their exhaustion (cf. Leiter & Maslach, 1988). To summarize, the present study tested the following hypotheses.

### **HYPOTHESES**

(1) There exists a positive relationship between perceived burnout complaints among colleagues and emotional exhaustion, and a positive relationship between susceptibility to emotional contagion and emotional exhaustion.

(2) Susceptibility to emotional contagion moderates the relationship between perceived burnout complaints among colleagues and emotional 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.

### **[FIGURE 1]**

### **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, 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 Dierendonck (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”.

## [FIGURE 2]

### 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 model, as displayed in Figure 2, consists of hypothetical constructs or latent variables that are all estimated by two empirical, manifest variables that are directly observed (i.e., the scales introduced before). The interaction term in the model was the only variable for which the latent variable was equal to the manifest variable: the cross-product term of perceived burnout complaints among colleagues and susceptibility to emotional contagion. Before the interaction term was computed, these variables were standardized, i.e., centered around their mean scores (cf. Aiken & West, 1991).

LISREL generates a chi-square goodness-of-fit statistic to test the extent to which our model is consistent with the data. A small, nonsignificant chi-square value indicates that the model fits the data well, and that the model and the data are not significantly different from each other. The final step in our analysis involves testing the extent to which the addition of paths from the most distal predictor variables to negative attitudes results in an improvement of the model. Bentler and Bonnet (1980) propose using a chi-square-difference test to answer the question of whether one model fits the data better than another. Each additional relationship specified in the alternative model costs one degree of freedom in the goodness of fit test. The chi-square difference test determines whether the improvement in fit of the model is sufficient to warrant the cost of a degree of freedom in the significance test.

## [TABLE 1]

### RESULTS

#### DESCRIPTIVE STATISTICS

Table 1 shows the mean values, standard deviations, intercorrelations, and internal consistencies (Cronbach’s alpha’s) of the variables included in this study. As can be seen from this table, the predictor variables correlated significantly with both the mediating variable (emotional exhaustion), and the criterion variable (negative attitudes: depersonalization and personal accomplishment). This implies that an important condition for mediation was met in this study (cf. Baron&Kenny, 1986).

Note that the intercorrelations between the three predictor variables were rather low.

#### TEST OF THE BURNOUT CONTAGION MODEL

Figure 2 shows the standardized solution of the burnout contagion model, and the standardized parameters. The results indicated that the model fit quite well to the data,  $\chi^2(18) = 27.48$ ,  $p = .07$ , adjusted goodness of fit index (AGFI) = .98, root mean square residual (RMR) = .035. All path coefficients are significant at the  $p < .05$  level. As a further test of the model, we allowed “perceived burnout complaints among colleagues” to have a direct relationship with negative attitudes, in addition to its indirect relationship through emotional exhaustion. This modified model also fit well to the data,  $\chi^2(17) = 25.19$ ,  $p = .09$ , AGFI = .98, RMR = .033. The standardized parameters of the direct and indirect relationship between perceived complaints and negative attitudes were .18 ( $p < .05$ ) and .32 ( $p < .01$ ), respectively. However, the difference between the chi-square value of the hypothetical model and the modified model was not significant,  $\Delta\chi^2(1) = 2.29$ ,  $p < .14$ . These results are consistent with Hypothesis 1 and 3, and suggest that the impact of perceived burnout complaints 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,  $\chi^2(17) = 25.58$ ,  $p = .08$ , AGFI = .98, RMR = .034, the difference between this chi-square value and the chi-square value of the hypothetical model is not significant,  $\Delta \chi^2(1) = 1.90$ ,  $p < .18$ . 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,  $\chi^2(17) = 27.23$ ,  $p = .06$ , AGFI = .98, RMR = .035. However, the difference between these two chi-square values was far from significant,  $\Delta \chi^2(1) = .25$ ,  $p < .63$ . 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 practitioners 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 remarks remind them of the times that their own patients were unappreciative of their help.

We found that those GPs who are most susceptible to the emotions expressed by others are most likely to become emotionally exhausted. The reason for this is presumably that these GPs are most vulnerable to catching the negative emotions not only expressed by their colleagues, but also by their patients. For example, in trying to understand the problem a patient is facing, a GP has to tune in to the emotions expressed by the patient. In such a situation, particularly those who are chronically susceptible to emotions are likely to catch, for example, the fear, anxiety, and depressed mood expressed by patients.

Because of the correlational nature of our data, it is important to look at alternative explanations for the relationship between perceived burnout complaints among colleagues and emotional exhaustion. Is it possible that feelings of emotional exhaustion cause perceptions of burnout complaints among colleagues? Research on the "false consensus" phenomenon has indeed shown that people are inclined to overestimate the prevalence of their own attitudes, emotions, and behaviors (Ross, Greene & House, 1977). In addition, cognitive dissonance theory would predict that GPs who experience feelings of burnout will be motivated to reduce the difference between their own cognitions and emotions, and those of their colleagues ("If I am burned-out, all the other GPs must be burned-out as well").

Although these alternative explanations cannot be ruled out completely with the present data, the significant, and independent contribution of the interaction term to explain variance in emotional exhaustion suggests that perceived burnout complaints among colleagues caused feelings of exhaustion instead of the other way around. More specifically, the positive relationship between perceived burnout complaints among colleagues and individual doctors' feelings of exhaustion was most pronounced among highly susceptible GPs. This suggests that GPs who are susceptible to emotional contagion caught the burnout complaints expressed by their colleagues. There is no reason to expect that GPs who are highly susceptible to the emotions expressed by others would overestimate the prevalence of burnout among their colleagues to a larger extent than GPs low in susceptibility.

Consistent with Leiter and Maslach's (1988) process model of burnout, we found that emotional exhaustion as determined by perceived burnout complaints among colleagues and susceptibility to emotional contagion, in turn, evokes negative attitudes. More specifically, higher levels of emotional exhaustion were predictive of negative attitudes towards patients, and towards oneself in relationship to the job. According to Leiter and Maslach (1998), this is one way for GPs to gain emotional distance from their patients as a way of coping with their exhaustion.

Limitations of our study clearly must also be noted. First, the study was conducted with a specific group of human service professionals, namely GPs. Although earlier research has provided evidence for burnout contagion among nurses (Groenestijn et al., 1992), and among couples of male military officers and their wives (Westman & Etzion, 1995), the results of the present study still need to be replicated in a more generalizable group to establish external validity of the conclusions. Second, the perceived number of burnout complaints among colleagues was only measured with two items, which questions its reliability.

Therefore, further research that includes multiple-item measures is needed. Third, it is unclear how burnout contagion takes place. Is it a conscious process, or is it an unconscious process? Is repeated exposure to a stimulus person suffering from burnout necessary for burnout contagion to occur? Experimental and longitudinal studies seem best suited to answer these more fundamental questions in future research. Finally, the analyses in the current study are correlational and thus do not confirm causality.

## CONCLUSION

Despite these limitations, the results of this study provide evidence for the existence of burnout contagion among GPs. As Edelwich and Brodsky (1980) noted: "If burnout only affected individuals in isolation, it would be far less important and far less devastating in its impact than it is. Burnout in human service agencies is like staph infection in hospitals: it gets around. It spreads from clients to staff, from one staff member to another, and (most crucially) from staff back to clients. Perhaps it ought to be called "staff infection"." (p. 25).

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**TABLES AND FIGURES**

**Figure 1**

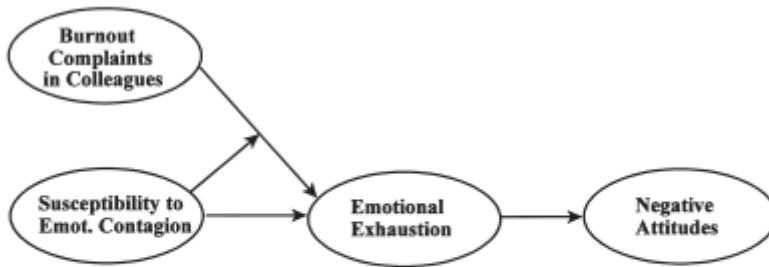


FIGURE 1. The Model of Burnout Contagion

**Figure 2**

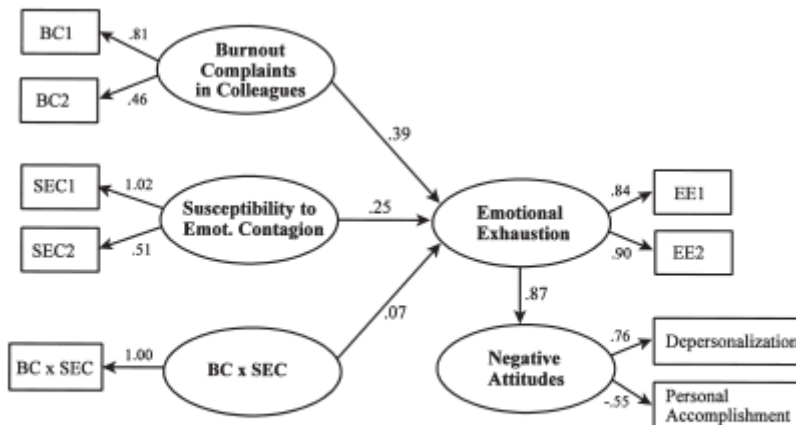


FIGURE 2. Burnout Contagion Model, Standardized Solution, *N* = 507

**Table 1**

Table 1. Descriptive Statistics and Intercorrelations of the Variables Included in This Study, *N* = 507

	M	SD	1	2	3	4	5	6
1. Emotional Exhaustion	16.83	7.29	(.90)					
2. Depersonalization	9.11	3.93	.58 <sup>a</sup>	(.71)				
3. Personal Accomplishment	26.74	3.39	-.44 <sup>a</sup>	-.41 <sup>a</sup>	(.71)			
4. Burnout Complaints	4.42	1.08	.30 <sup>a</sup>	.31 <sup>a</sup>	-.09 <sup>c</sup>	(.54)		
5. Susceptibility	14.47	3.09	.27 <sup>a</sup>	.13 <sup>b</sup>	-.30 <sup>a</sup>	.09 <sup>c</sup>	(.69)	
6. Complaints x Susceptibility	0.29	3.41	.14 <sup>b</sup>	.09 <sup>c</sup>	-.04	.07	.10 <sup>c</sup>	(—)

Note. BC = perceived Burnout Complaints in colleagues; EC = Emotional Contagion. <sup>a</sup> *p* < .001. <sup>b</sup> *p* < .01. <sup>c</sup> *p* < .05.