

BURNOUT AND INTENTION TO LEAVE AMONG MENTAL HEALTH-CARE PROFESSIONALS: A SOCIAL PSYCHOLOGICAL APPROACH

SABINE GEURTS

University of Nijmegen, The Netherlands

WILMAR SCHAUFELI

University of Utrecht, The Netherlands

IAN DE JONGE

University of Nijmegen, The Netherlands

In this study, burnout and intention to leave are investigated from a social psychological perspective. By employing covariance structure modeling (LISREL 8), a model is tested and revised among a group of 208 group mental health care professionals. The results showed that the more employees are engaged in negative communication with their colleagues about management, the more they feel strengthened in their perception of inequity in the employment relationship. This perception of inequity results in two forms of withdrawal: intention to leave the organization (i.e., "behavioral" withdrawal) and emotional exhaustion, resulting—in turn—to feelings of depersonalization ("psychological" withdrawal). Thoughts about leaving the organization are also directly triggered by negative discussions concerning management. Furthermore, the more employees feel emotionally exhausted, the more they seem to feel the need to engage in negative communication with colleagues. The implications of the findings are discussed, particularly from the perspective of social comparison theory and equity theory, and methodological aspects and limitations are considered.

Human service professionals work in emotionally demanding jobs. As a result, they are exposed to high risks for their health and wellbeing (cf. Maslach & Schaufeli, 1993). Not only is burnout recognized as a chronic

This study was partly financially supported by grant from the Dutch Ministry of Social Affairs and Employment.

Address correspondence to Sabine Geurts, Department of Work and Organizational Psychology, University of Nijmegen, P.O. Box 9104, 6500 HE Nijmegen, The Netherlands.

and extensive problem in this field, high turnover rates, exceeding 60% each year—also have been reported (cf. Ben-Dror, 1994; Razza, 1993). Of course, the presumably high incidence of both burnout and turnover has undesirable implications. For instance, it may reinforce client's insecurities and mistrust in the care-providing system, and it may discourage workers from entering or remaining in the field (Hargrove, Fox & Goldman, 1991), which in turn could lead to an impairment of quality of care.

Whereas burnout in health-care organizations has received much attention in the popular, the professional, and the scientific press, studies examining burnout in mental health-care organizations, as well as studies assessing the relationship between burnout and turnover are rather scarce (Ben-Dror, 1994). Moreover, despite the fact that burnout has been the focus of numerous research efforts, most research in this area has been atheoretical and has focused virtually no attention to the underlying social psychological processes (Buunk & Schaufeli, 1993).

The present study tries to bridge these gaps by studying burnout in conjunction with intention to leave among mental health care professionals from a social psychological perspective. Although it is recognized that intentions may change over time and are not necessarily predictive of future behavior, a review and meta-analysis of longitudinal studies by Steel and Ovalle (1984) has consistently shown that an individual's thoughts and intention of leaving are the strongest predictor of an actual leave decision (cf. Tett & Meyer, 1993).

Our central thesis is that burnout and intention to leave develop primarily in a social context, and that to understand these phenomena, attention must be paid to how individuals perceive and interpret information and behaviors of others at work. Recently, it has been argued that social comparison theory (Festinger, 1954; Wheeler, 1991) and social exchange theory (Adams, 1965; Walster, Walster & Berscheid, 1978) provide a promising framework for improving our understanding of burnout (Buunk & Schaufeli, 1993; Schaufeli, Van Dierendonck & Van Gorp, 1996) and turnover intentions (Van Yperen, Hagendoorn, & Geurts, 1996). This social psychological perspective is based on the following two assumptions: First, social exchange and reciprocity between individual workers and the organization are key elements in the employment relationship. Second, individual workers are inclined to engage in social comparison and communication with colleagues in order to relate their own work experiences to those of others in similar positions. This is particularly true for human service professionals, who often experience uncertainty in their work, for instance, because of lack of clear criteria for success (cf. Hingley & Cooper, 1986).

In the present research, it is assumed that emotional exhaustion (i.e. feelings of being emotionally overextended and depleted of one's emo-

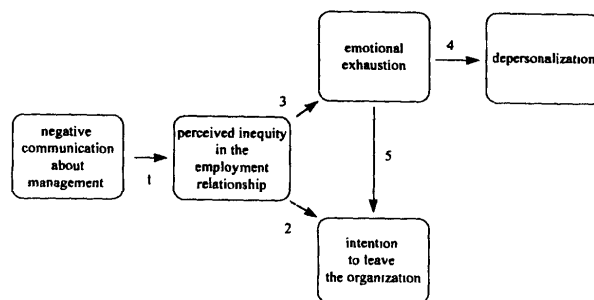


FIGURE 1 The hypothetical model

tional resources) and intention to leave the organization are likely to develop when individual workers perceive a lack of reciprocity in their employment relationship (social exchange), and when they receive information from their colleagues consistent with their perception (social comparison). Emotional exhaustion, generally considered to be the key dimension of the burnout syndrome (cf. Shirom, 1989), in turn is thought to trigger two types of withdrawal reactions: "psychological" withdrawal, that is, depersonalization (i.e. a negative, callous, or excessively detached response to people one works with, particularly recipients of one's care), and "behavioral" withdrawal, the intention to leave the organization. Both withdrawal reactions are considered attempts to cope with excessive emotional demands.

The conceptual model that guides the present research is illustrated in Figure 1. After briefly discussing the role of social comparison within work units, our hypothetical model is described in greater detail.

SOCIAL COMPARISON WITHIN WORK UNITS

A central thesis of social comparison theory (Festinger, 1954; Wheeler, 1991) is that people use others as a source of information to establish an accurate view of the world. People engage in comparisons and communication with others similar to them in order to reduce uncertainty about the validity of their own perceptions and judgments, and to establish a common norm or opinion (Moscovici, 1985). Within work units, these social comparison processes can be expected to play an important role in fostering the development burnout and turnover intentions. There is

indeed some evidence that burnout levels of individual employees are more similar within work units than between work units. Although, of course, differences in job content and job conditions between work units might explain the differences in burnout levels, social comparison processes also provide a plausible explanation. Employees may take on burnout symptoms they perceive among their colleagues, reasoning that these symptoms are apparently quite normal given their job situation (Buunk & Schaufeli, 1993). Also, by engaging in interaction with colleagues during which negative information about the job is exchanged, employees may become conscious of less desirable aspects of their job, and thus may develop burnout symptoms and turnover intentions (Buunk, 1990; Moscovici, 1985).

In line with this perspective, in the current study it is assumed that individual workers are inclined to relate their own work experiences to those of close colleagues, and that such comparisons may have consequences for the development of burnout and intention to leave the organization (cf. Buunk & Schaufeli, 1993).

NEGATIVE COMMUNICATION AND INEQUITY IN THE EMPLOYMENT RELATIONSHIP

From the perspective of social exchange theory (Homans, 1961) and equity theory (Adams, 1965; Deutsch, 1983; Walster, et al., 1978), one potentially powerful work experience deals with perceived inequity in the employment relationship. Social exchange models assume that individuals pursue equity in their exchange with the organization (Barnard, 1938; Hatfield & Sprecher, 1984): employees agree to make specific contributions to an organization (e.g., talents, experience, time and effort), and they clearly expect the organization to provide benefits (e.g., payment, fringe benefits, promotion prospects, a supportive climate) proportional to their contributions. Building on this perspective, the notion of a psychological contract (Rousseau & Parks, 1993) between employees and employers conveys expectations held by employees about the reciprocal nature of the employment relationship. Expectations concern both concrete or explicit issues (e.g., payment and work load), and less tangible or implicit matters (e.g., esteem and dignity at work). Inequity, or a violation of the psychological contract, is experienced when the expectations of reciprocity remain unfulfilled because the costs of the exchange with the organization outweigh the benefits that one received in return.

A psychological contract resides per definition in the "eyes of the beholder," particularly because of the less concrete or ambiguous contributions and benefits involved. Therefore, individual workers will

often feel uncertain about the appropriateness of their inequity perception. Building on social comparison theory, comparisons and communication with one's colleagues are major ways of evaluating one's equity considerations. Research on the "group polarization phenomenon" suggests that, when individuals engage in a discussion with colleagues in which a negative view of the organization predominates (cf. Myers & Lamm, 1976), they will develop an even more negative view after the discussion (cf. Brauer, Judd & Gliner, 1995; Moscovici, 1985; Myers & Lamm, 1976). In a similar vein, it can be expected that individual workers who receive information from their colleagues consistent with their own perception of an inequitable employment relationship will feel strengthened in their point of view, resulting in a polarization of the inequity perception. Following this reasoning, current research hypothesizes that, the more employees are engaged in negative communication with colleagues about management, the more they consider their employment relationship to be inequitable (Figure 1: path 1).

BURNOUT AND INTENTION TO LEAVE AS REACTIONS TO INEQUITY

A long history of equity research (Adams, 1965; Walster et al., 1978; Deutsch, 1983; Mowday, 1991), as well as recent studies on psychological contract violation (Rousseau & Parks, 1993; Robinson & Rousseau, 1994), reveal that both burnout and intention to leave might result when employees perceive a lack of reciprocity in their employment relationship. When expectations of reciprocity are corroded, psychological and behavioral withdrawal may result, such as dissatisfaction (Robinson & Rousseau, 1994; Syroit, Lodewijkx, Franssen & Gerstel, 1993), intentions to leave the organization and actual turnover (Guzzo, Noonan & Elron, 1994; Robinson & Rousseau, 1994; Van Yperen et al., 1996), and absenteeism (Geurts, Schaufeli & Buunk, 1993; Geurts, Buunk & Schaufeli, 1994a; Geurts, Buunk & Schaufeli, 1994b; Geurts & Schaufeli, 1996). In particular, human service professionals seem vulnerable to perceived violations of the psychological contract because they often have unrealistic job expectations (Cherniss, 1980, 1995). When high expectations (e.g., about autonomy or collegiality at work) clash with harsh reality, young professionals especially might experience contract violation due to unfulfilled expectations of reciprocity.

From the perspective of equity theory (Adams, 1965), the psychological process that underlies burnout and intention to leave are considered reactions to an inequitable employment relationship. Inequity is conceptualized as an aversive motivational state that the individual will attempt to reduce (Adams, 1965). One means available to reduce inequity

is to "leave the field" (i.e. absenteeism or quitting the job). Indeed, employees may perceive time away from work as instrumental to decreasing their investments and to attaining other more valued nonwork outcomes simultaneously (cf. Hackett, Bycio & Guion, 1989; Morgan & Herman, 1976). A series of studies of Geurts and her colleagues (1993; 1994a; 1994b; Geurts & Schaufeli, 1996) have consistently shown that employees call in sick, the more they perceive their exchange with the organization to be inequitable. In addition, Rosin and Korabik (1991) showed that women managers who felt that their expectations had not been met were more inclined to leave the organization. The current study, which focuses on permanent rather than temporary withdrawal, hypothesizes that, the more inequitable employees perceive their employment relationship to be, the more they will be inclined to leave the organization permanently (Figure 1: path 2).

Leaving the organization is, however, a rather radical way of coping with inequitable employment relationship. The choice for this coping strategy will depend, among other things, on the perceived availability of alternative employment opportunities (Rusbult & Farrell, 1983). When employees perceive barriers to leave the work situation, for instance because of poor labor market, they are "forced" to stay in their jobs. When there exists a chronic discrepancy between investments and outcomes and there is no alternative way of escaping it, it is plausible to assume that employees develop feelings of emotional exhaustion in response to perceived inequity or unmet job expectations (cf. Cherniss, 1980). Recent studies among nurses (Schaufeli et al., 1996) and professionals working with mentally disabled people (Van Dierendonck, 1997) explicitly show that individuals who feel that their inputs in the employment relationship exceed the gains provided to them develop more burnout symptoms. Several other studies provide more indirect support for such a relationship. For example Edelwich and Brodsky (1980) mention the low pay, the lack of promotion prospects, and the lack of clear criteria for success as factors contributing to burnout. Accordingly, it is hypothesized that the more inequitable employees perceive their employment relationship to be, the more they will feel emotionally exhausted (Figure 1: path 3).

In line with the burnout literature (Maslach, 1993), we consider "psychological" and "behavioral" withdrawal as attempts to cope with the depletion of one's emotional resources. When work demands begin to take their toll, human service employees react by distancing themselves from the source of stress. Edelwich and Brodsky (1980) suggest that when apathy takes hold, employees either give up on their job by becoming less committed (i.e., "psychological" withdrawal) or by giving

up the job and profession altogether (i.e., "behavioral" withdrawal). Furthermore, Leiter and Maslach (1988) have shown that when emotional exhaustion develops, professionals may develop a cynical and distant attitude (i.e., depersonalization) as an attempt to gain emotional distance from their job (cf. Leiter, 1993; Lee & Ashforth, 1993a). Based on a literature review, Kahill (1988) concludes that a strong relationship exists between burnout among professionals and both turnover intentions and actual turnover. In addition, Jackson, Schwab and Schuler (1986) as well as Lee and Ashforth (1993b) reported significant relationships—particularly involving emotional exhaustion—between thoughts of leaving the job and actually leaving the job. Thus, in addition to turnover intention representing a direct attempt to reduce an inequitable situation (Figure 1: path 2), it is also considered an attempt to cope with feelings of exhaustion. Accordingly, it is hypothesized that the more employees feel emotionally exhausted, the more they develop feelings of depersonalization (Figure 1: path 4), and the more they will be inclined to leave the organization (Figure 1: path 5).

METHOD

PARTICIPANTS AND PROCEDURE

The current study was conducted among 208 out of 260 mental health care professionals (80 males and 108 females; the response rate was 80%). Among them was a subsample ($n = 122$) consisting of direct care professionals from a community residential facility. These professionals all worked with mentally disabled people, either as a group leader ($n = 94$), as a departmental manager ($n = 24$), or as a nurse ($n = 4$). The other subsample ($n = 86$) consisted of participants employed in a community mental health center. Among them were 7 psychiatrists, 20 psychologists and psychotherapists, 7 pediatricians, 37 social workers, and 15 supporting assistants. The average age was approximately 37 ($SD = 7.26$; range 23–62), and the mean duration of employment was approximately 9 years ($SD = 6.28$; range 0–26). All subjects participated voluntarily in a survey. Questionnaires were filled in and returned by mail. It was strongly emphasized that these would be treated confidentially.

SURVEY MEASURES

Negative Communication about Management. On a 5-point scale, ranging from "never" (1) to "daily" (5), participants indicated by means of one question how often they and their colleagues complained about management.

Perceived Inequity in the Employment Relationship. Participants were confronted with three items: (1) "I invest more in my work than what I get out of it"; (2) "I exert myself too much considering what I get back in return"; and (3) "For the efforts I put into the organization, I get much in return" (this last item was recoded). Participants responded on a 5-point scale, ranging from "I disagree completely" (1) to "I agree completely" (5). The internal consistency is satisfactory ($\alpha = .73$). Similar general measures of inequity have been employed in absence research (Geurts et al., 1993) and previous research on burnout (e.g., Van Dierendonck, Schaufeli, & Buunk, 1996a; Van Yperen, Buunk & Schaufeli, 1992).

Emotional Exhaustion. This concept was measured by eight items of the Dutch version of the Maslach Burnout Inventory (Maslach & Jackson, 1986), the so-called MBI-NL (Schaufeli & Van Dierendonck, 1993). Some examples of items of this scale are: "I feel emotionally drained from my work" and "Working with people all day is really a strain for me." Because of insufficient factorial validity in earlier studies, one of the original nine items (No. 16: "Working with people directly puts too much stress on me") has been omitted in the Dutch version (Schaufeli & Van Dierendonck, 1993, 1994). The internal consistency is good ($\alpha = .87$). The items were scored on a 7-point scale, ranging from "never" (0) to "every day" (6).

Depersonalization. This concept was measured by five items of the Dutch version of the Maslach Burnout Inventory (MBI-NL) (Maslach & Jackson, 1986), such as "I have become more callous toward clients since I took this job" and "I worry that this job is hardening me emotionally." The internal consistency is sufficient ($\alpha = .64$). The items were scored on a 7-point scale, ranging from "never" (0) to "every day" (6).

Intention to leave the organization. Participants were confronted with the following four items: "I consider my decision to work for this employer as an obvious mistake," "If it would have been easier to change employers, I would have quit a long time ago," "I'm equally willing to work for another employer," and "Before I change employers, a lot has to happen" (this last item was recoded). They responded on a five-point rating scale, ranging from "I disagree completely" (1) to "I agree completely" (5). The internal consistency is sufficient ($\alpha = .69$).

DATA ANALYSIS

Covariance structure modeling (LISREL 8; Jöreskog & Sörbom, 1993) was performed to assess the fit of the proposed model. As proposed by Hayduk (1987), Kenny (1979), and Williams and Hazer (1986), the reli-

abilities of the measures (i.e., the internal consistencies) are used to fix the values of the factor loadings and error variances.¹ This method can only be used when working with standardized variables (cf. Hayduk, 1987; Williams & Hazer, 1986). To assess the overall fit of the model, a mixture of fit-indices is used (Bollen & Scott Long, 1993; Jöreskog, 1993):

1. The well-known Chi-square statistic (χ^2);
2. The Adjusted Goodness-of-Fit Index (AGFI; Jöreskog, 1993). Values greater than .90 indicate a reasonable fit of the model, whereas values equal to or greater than .95 indicate a close fit (Browne & Cudeck, 1993; Verschuren, 1991).
3. The Root-Mean-Square Error of Approximation (RMSEA; Browne & Cudeck, 1993). Values of about .08 or less indicate a reasonable fit of the model, whereas values lower than .05 indicate a close fit (Browne & Cudeck, 1993; Verschuren, 1991).
4. The Non-Normed Fit Index (NNFI; Bentler & Bonett, 1980), indicating the *incremental* fit of a particular model as compared to a null model (M_0) that assumes zero relationships among the variables. Values less than .90 usually mean that the model can be improved substantially.
5. The Comparative Fit Index (CFI; Bentler, 1990), with a 0–1 interval in which the value 1 stands for a perfect model fit. This index seems to be one of the best indices in the context of model misspecifications and variations in sample size (Bentler, 1990).
6. The Expected Cross-Validation Index (ECVI; Browne & Cudeck, 1993), a measure of "the discrepancy between the fitted covariance matrix in the analyzed sample and the expected covariance matrix that would be obtained in another sample of the same size" (Jöreskog, 1993, p. 307). All possible models must be estimated, ranked according to the ECVI, and then the model with the smallest value is chosen (cf. Browne & Cudeck, 1993).

RESULTS

Table 1 shows the descriptive statistics (i.e. mean values, standard deviations, theoretical range, and zero-order correlations) for the total sample consisting of 208 mental health care professionals. A multi-sample LISREL analysis revealed that the correlation matrices of Subsample

1 The path from any construct to its measured variable (λ) equals the square root of the reliability of the measured variable. Consequently, the amount of random error variance (δ or ϵ) is the quantity 1 minus the reliability of the measured variable

TABLE 1. Means (*M*), Standard Deviations (*SD*), and Zero-Order Correlations of the Variables Included in the Current Study (*n* = 208)

	<i>M</i>	<i>SD</i>	Theoretical Range	2	3	4	5
Negative communication about management	2.95	.91	1-5	.38	.43	.34	.43
Perceived inequity in the employment relationship	2.73	.97	1-5		.54	.30	.45
Emotional exhaustion	11.52	7.28	0-48			.54	.44
Depersonalization	3.72	3.50	0-30				.27
Intention to leave the organization	2.05	.78	1-5				

1 (*n* = 122) and Subsample 2 (*n* = 86) were *not* significantly different ($\chi^2_{(15)} = 13.72$, $p = ns$), allowing us to test our conceptual model in the total sample of 208 participants. Because our prime interest is in *relationships* among the variables, it is *not* useful to check whether or not the means of individual variables are the same for the two independent institutes (Kessler & Greenberg, 1981).

An indication of the level of burnout among the mental health care professionals involved in the current study was obtained by comparing their MBI-NL scores on emotional exhaustion and depersonalization with those of 3,679 other Dutch human service professionals (e.g., nurses, physicians, correctional officers, and hospice staff) who serve as provisional normative sample (Schaufeli & Van Dierendonck, 1994). In this rather heterogeneous sample, mean levels of emotional exhaustion and depersonalization were 14.11 (*SD* = 8.01) and 7.90 (*SD* = 4.36), respectively. *T*-tests revealed that the mental health care professionals in the current study reported lower levels of emotional exhaustion ($M = 11.52$, $SD = 7.28$; $t_{(3859)} = 4.28$, $p < .001$) and particularly of depersonalization ($M = 3.72$; $SD = 3.50$; $t_{(3815)} = 11.05$, $p < .001$), compared with the reference group. We should realize, however, that the comparative sample is based on professions particularly chosen for their high prevalence of burnout symptoms. Therefore, the *absolute* level of burnout in our sample is not necessarily "low." Taking a closer look at the absolute score on an item of the scale "emotional exhaustion," we notice that 43% ($n = 90$) reported to "feel used up at the end of the working day," *at least* several times a month. Covariance structure analyses were employed to assess the fit of the hypothetical model of Figure 1. A two-step process was used: Correlation matrices were performed in order to analyze the structural model. Along with these matrices, the information from the reliabilities were also entered into the program. After a successful model identification test has been performed, estimation of the model parameters can proceed.

TABLE 2. Goodness-of-fit indices (*n* = 208)

Model	χ^2	df	AGFI	RMSEA	NNFI	CFI	ECVI
M ₀	272.28**	10	.38	.36	—	—	1.36
M ₁	18.57**	5	.89	.11	.90	.95	.19
M ₂	20.06**	6	.90	.11	.91	.95	.18
M ₃	12.81*	5	.93	.09	.94	.97	.16
M ₄	4.73	4	.97	.03	.99	1.00	.13

Note. * $p < .05$, ** $p < .001$.

AGFI = Adjusted goodness-of-fit, RMSEA = Root Mean Square Error of Approximation, NNFI = Non-Normed Fit Index, CFI = Comparative Fit Index, ECVI = Expected Cross-Validation Index

The goodness-of-fit measures indicate that the proposed model (see Figure 1) does *not* fit the data sufficiently ($\chi^2_{(5)} = 18.57$, $p < .001$, AGFI = .89, RMSEA = .11, NNFI = .90, CFI = .95, ECVI = .19). These fit indices as well as the modification indices show that model M₁ can be improved. Table 2 shows the goodness-of-fit measures of a structural null model (M₀), proposing zero relationships among the variables and the a priori specified model (M₁). Table 2 also shows three additional revised models (M₂, M₃ and M₄) that were subsequently tested.

After the first step (M₁), the nonsignificant relationship between emotional exhaustion and intention to leave the organization ($\beta = .17$, $p = ns$) was constrained to zero. As can be expected, because this path was nonsignificant, the fit of M₂ did not deteriorate significantly ($\Delta\chi^2_{(1)} = -1.49$, $p = ns$). After this step (M₂), the fit of M₃ improved significantly ($\Delta\chi^2_{(1)} = 7.25$, $p < .01$) when a direct relationship between negative communication about management and intention to leave the organization was relaxed. The latter association indicates that mental health care professionals are increasingly inclined to leave their organization the more that negative experiences with management are communicated. After Step 3, the fit of M₄ improved significantly when a direct relation was specified between emotional exhaustion and negative communication about management ($\Delta\chi^2_{(1)} = 8.08$, $p < .005$), indicating that the more mental health care professionals feel emotionally exhausted, the more they engage in negative discussions about management.² This step resulted in a well fitting model ($\chi^2_{(4)} = 4.73$, $p = ns$, AGFI = .97, RMSEA = .03, NNFI = .99, CFI = 1.00, ECVI = .13), suggesting that the final revised

2 It should be mentioned here that an equally well-fitting model resulted when this relationship was relaxed in the other (theoretically tenable) direction, that is, from negative communication to emotional exhaustion. However, a flow from emotional exhaustion to negative communication appeared to be more dominant ($\beta = .34$) than the other way around ($\beta = .21$).

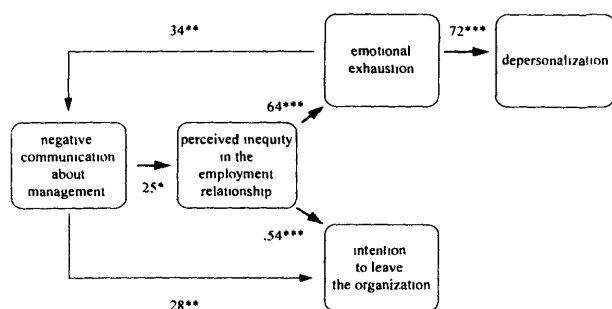


FIGURE 2 The final revised structural model

Note. * $p < .05$, ** $p < .01$, *** $p < .001$

model reproduces the observed covariance matrix adequately. Figure 2 illustrates the standardized regression coefficients of the final revised model (M_4), which also passed a successful model identification test.

The results show that four out of five hypothesized paths are significant. The more mental health care professionals are engaged in negative communication about management, the more they perceive inequity in their employment relationship (path 1: $\beta = .25$, $p < .05$). This perception of inequity is positively related with both intention to leave the organization (path 2: $\beta = .54$, $p < .001$) and emotional exhaustion (path 3: $\beta = .64$, $p < .001$). In accordance with our expectation, emotional exhaustion results in feelings of depersonalization (path 4: $\beta = .72$, $p < .001$). However, contrary to our expectation, emotional exhaustion is *not* significantly related to intention to leave the organization (path 5: $\beta = .17$, $p = ns$).

The results further show that two additional paths are significant. First, the more employees communicate negatively about management, the stronger they are inclined to leave the organization ($\beta = .28$, $p < .01$). This *direct* impact of negative communication about management on intention to leave the organization is stronger than the *indirect* impact via perceived inequity in the employment relationship [i.e., $.14 = \text{path } 1 \times \text{path } 2 + \text{path } 1 \times \text{path } 3 \times .34$ (the nonrecursive path) $\times \text{path } 1 \times \text{path } 2$]. Second, emotional exhaustion is positively related to negative communication about management, indicating that the more employees feel emotionally exhausted, the more they engage in negative discussions with colleagues about management ($\beta = .34$, $p < .01$). The final model (M_4) explains approximately half of the variance in all three outcome

variables, that is, 47% of emotional exhaustion, 52% of depersonalization and 50% of intention to leave.

To test whether or not the pattern of path coefficients of the final revised model (M_4) was the same in the two subsamples, multi-sample structural equation analyses were performed. In Step 1, a fit function is calculated, hypothesizing that the model estimates are the same across the subsamples (H_0). In Step 2, a fit function is calculated, hypothesizing that the model estimates (i.e., the path coefficients) are different across the subsamples (H_1). The difference between the two fit functions is *not* significant ($\Delta\chi^2_{(6)} = 5.28$, $p = ns$), which means that H_0 cannot be rejected. In other words, an *invariant* pattern of path coefficients of the final revised model (M_4) is tenable in both subsamples.

The last phase in LISREL modeling should be the test of our revised model (M_4) with new (or different) data. This so called cross-validation is important when the model has been revised to improve the model fit in the same sample on which the original model was tested (model modification may increase the risk of chance capitalization, which means that the final model may not reflect a generalizable structure in the population). When additional data are unavailable, the use of a single sample cross-validation index—like the ECVI we described before—is suggested by Browne and Cudeck (1993). In our study the ECVI for the final model, M_4 (ECVI = .13), is less than the ECVIs for the models fitted before, and less than the ECVI for the saturated model (ECVI = 14) (cf Browne & Cudeck, 1993). This rank order of competing models is similar to the rank order according to the expected overall discrepancy. It can therefore be concluded that the final revised model (M_4) has a smaller expected overall discrepancy than any of the competing models, yielding a closer fit.

DISCUSSION

The aim of the present study was to investigate burnout and intention to leave the organization among mental health care professionals from a social psychological perspective. It was assumed that perceived equity is a key element in the psychological contract that exists between an employee and the organization, and that employees relate their own equity considerations to those of colleagues by engaging in social comparison and communication. Such comparisons may have consequences for the development and persistence of burnout and intention to leave the organization.

Remarkably, we found a relatively low level of burnout in the composite sample used in the current study. In particular, the level of depersonalization was low compared to the normative sample. An

explanation might be that our sample consisted exclusively of professionals working with clients having a *mental* handicap of some kind, whereas the normative sample also included professionals working with clients without any mental handicap. Although working with the mentally handicapped may be stressful from time to time due to violent outbursts and behavior problems (Sharrard, 1992), gaining emotional distance from these clients is more difficult than developing a cynical and distant attitude toward clients considered mentally healthy (cf. Van Dierendonck, et al., 1996a). Moreover, Cherniss and Krantz (1983) found remarkably little burnout in what they called "ideological communities." Professionals in these settings, for instance residential programs for mentally retarded people operated by a Catholic religious order, were strongly committed to the institute's "communal" ideology (cf. Buunk & Schaufeli, 1993). It might be the case, although this is purely speculative, that the community residential facility for mentally disabled people involved in the current study typifies what Cherniss (1995) would call an "ideological community." Despite the relatively low level of burnout, however, a substantial part of the variance (approximately 50%) in both burnout dimensions is explained by the final revised model in the current study.

Most of our hypotheses were supported by data in the current study. In line with social comparison perspective (Festinger, 1954; Wheeler, 1991) and group polarization research (Moscovici, 1985; Myers & Lamm, 1976), our results suggest that when employees are engaged in negative discussions with their colleagues about management, they become more convinced of the appropriateness of their own inequity perception in the employment relationship, resulting in a polarization of this perception. In other words, receiving social comparison information consistent with one's own negative thoughts about management seems to result in a more negative view of management. The results further showed that, as expected, employees respond to this inequity perception by developing burnout symptoms or by leaving the organization. From an equity perspective (Adams, 1965; Deutsch, 1983; Walster et al., 1978) the latter response can be considered instrumental to reducing the inequitable employment relationship. We expected the former response to occur when a chronic discrepancy between investments and outcomes exists. As with equity perspective and burnout research (Leiter, 1993; Van Dierendonck, 1997), results showed that employees deal with this situation by gaining emotional distance from their job. This finding is consistent with the stress-strain-coping framework of Lazarus and Folkman (1984), where perceived inequity can be viewed as a stressor, emotional exhaustion as a particular strain, and depersonalization as a way of coping. From an equity perspective, depersonalization as a form

of "psychological withdrawal" can also be considered an attempt to reduce one's contributions to the job in order to restore an equitable employment relationship (Van Dierendonck, 1997).

In addition to "psychological withdrawal" as attempt to deal with the depletion of one's emotional resources, it was also expected that "behavioral withdrawal,"—intention to leave the organization—would develop in response to emotional exhaustion (cf. Jackson et al., 1986; Lee & Ashforth, 1993b). However, although the zero-order correlation between these two outcome variables was significant ($r = .44, p < .001$), the standardized regression coefficient in the final revised model was *not* ($\beta = .17, p = \text{ns.}$). Apparently, a substantial part of the variance between emotional exhaustion and intention to leave is explained by their common relationship with perceived inequity. In fact, when we partial out the impact of perceived inequity, the zero-order correlation between exhaustion and intention to leave drops substantially ($r = .23$). This result indicates that perceived inequity is a strong and common antecedent of both emotional exhaustion and intention to leave, underlining the importance of including social psychological antecedents in research on burnout and turnover.

Whether feelings of exhaustion or thoughts about leaving the organization develop may depend on loyalty to the work organization and commitment to the job. Research by Van Yperen et al. (1996) among blue collar workers clearly indicates that both factors operate as barriers to turnover intention, particularly in response to perceived inequity. In a similar vein, Reilly's study (1994) among hospital nurses showed that the link between job stressors and burnout was significantly stronger for more committed nurses. In addition, Farber (1983) argues that burnout often affects the most caring and involved workers because they are the ones for whom a discrepancy between experience (i.e., "the way it is") and expectation (i.e., "the way it should be") most matters. Therefore, a direction for future research would be to investigate the possible moderating role of job and organizational commitment on the relationship between social psychological antecedents on the one hand, and burnout and turnover on the other hand.

The current study also revealed two unexpected results. A direct relationship was found between negative communication about management and turnover intentions, suggesting that the content of such communications motivated employees to withdraw permanently from the work situation. And there may be two mechanisms through which social comparisons may have played a role in this relationship. As we argued before, research on "group polarization" would suggest that individuals who engage in a discussion about management in which a negative view on management predominates, will develop a more nega-

tive view on this topic after the discussion (Buunk, 1990; Moscovici, 1985). It is plausible that, independent of any equity considerations, such a negative view on management directly fosters an intention to leave the organization. Also, colleagues may also act as models whose behavior is then imitated. Kirschenbaum and Weisberg (1990) demonstrated in a heterogeneous sample of workers in the textile branch that perceptions of coworkers' intentions to leave had a high positive impact upon one's own intention to leave, as well as upon actual turnover. This result suggests that a process of "response contagion" might have taken place: individuals may have adopted thoughts about leaving the organization, reasoning that having these thoughts is apparently normal given their job situation (cf. Hatfield, Cacioppo, & Rapson, 1992).

Another unexpected result involved the association between emotional exhaustion and negative communication about management, suggesting that employees who experience burnout symptoms search for social comparison information. This finding is consistent with earlier research by Buunk, Schaufeli and Ybema (1994), who showed that hospital nurses who felt emotionally exhausted and uncertain, experienced the need to compare and affiliate with similar others. That is, they desired to talk with others about work problems. This finding validates the early work of Schachter (1959), which supported the idea that individuals who feel uncertain about the appropriateness of their own emotions tend to affiliate with others in similar situations. Research by Sullins (1991) provided evidence for a process of "emotional contagion" as a result of such affiliation. Her research showed that individuals who feel uncertain about their emotions are inclined to take on the emotion of those they are with, particularly where negative emotions are concerned. A similar process has been shown with regard to burnout. Groenestijn, Buunk and Schaufeli (1992) demonstrated that nurses who affiliated with colleagues expressing burnout symptoms reported more burnout symptoms themselves. The results of the current study also suggest such a vicious circle: emotional exhaustion may induce a desire to compare and communicate with colleagues. When a negative view of management predominates the discussion, such communications may lead to a process of contagion of negative perceptions (i.e. perceived inequity in the employment relationship), thoughts (about leaving the organization), and emotions (i.e., emotional exhaustion), which in turn induce a need for affiliation and communication.

To conclude, current research demonstrates that a social psychological approach, particularly from the perspective of social comparison theory and social exchange theory, might provide a fruitful and promising avenue for future research on burnout and turnover. Our study suggests that when individual workers perceive a lack of reciprocity in their

employment relationship (i.e., social exchange), and receive information from their colleagues consistent with this perception (i.e., social comparison), they are more likely to develop burnout symptoms and turnover intentions.

The current study adds to the extant literature in at least two major ways. First, by using a theory-guided approach and by concentrating on the underlying social psychological processes, rather than on the end state, the current study contributes to earlier studies on burnout and turnover (cf. Schaufeli, Maslach & Marek, 1993). Second, our study merits earlier theory-guided social psychological studies on burnout by integrating both burnout and turnover into this theoretical framework, and by studying these phenomena in the population of mental health care professionals, rather than general health care workers (e.g., general nurses).

LIMITATIONS AND FUTURE RESEARCH

Despite the overall positive results, the present research has several limitations as well. As with, like all cross-sectional research, and despite the use of covariance structure modeling, this study does not provide a firm basis for drawing causal inferences. Hence, it cannot be ruled out that perceived inequity in the employment relationship is an accompanying symptom of burnout, instead of being its antecedent. Even reverse causation cannot be ruled out. However, a recent longitudinal study by Van Dierendonck, Schaufeli and Buunk (1996b) provided stronger evidence that inequity precedes burnout, rather than vice versa.

Second, three steps had to be taken in order to arrive at a properly fitting model. Therefore, the possibility of chance capitalization cannot be completely ruled out. On the other hand, the Expected Cross-Validation Index (ECVI) provides a first indication of the robustness of the model in another (fictitious) sample.

Third, this study relied exclusively on self-report measures that could increase the problem of common method variance. Unfortunately, we cannot test the strength of this variance, but several findings recently reported in the literature (e.g., Boumans & Landeweerd, 1993; Semmer, Zapf & Greif, 1996; Spector, 1992) indicate that common method variance is not as troublesome as one might expect in this kind of studies. For instance, Semmer et al. (1996) noted similar patterns of correlations in studies for which self-reported stressors, on the one hand, and observed stressors, on the other hand, were related to variables of health and wellbeing respectively. A related issue involves the use of a single item in measuring the construct "negative communication about management." We are unable to demonstrate in the current study that this

single indicator is as reliable and valid as multiple indicators. However, research on related concepts, such as job satisfaction, demonstrates that a single item construct is a good indicator for a global or general construct, and has sufficient psychometric properties as well (e.g., test-retest reliability, construct validity, predictive validity) (cf. De Jonge, 1995; Scarpello & Campbell, 1983).

Finally, although a substantial amount of variance (about 50%) in both burnout and intention to leave is explained by the model in the current research, a question that needs to be answered is whether this involves unique variance, or perhaps the same variance explained by such well-established determinants, as major job stressors and job satisfaction (cf. Kirschenbaum & Weisberg, 1990; Rosin & Korabik, 1995; Sawyer, 1992). A related question involves the possible impact of a dispositional factor such as "negative affectivity," which may have biased the (self-report) responses of employees (e.g., Burke, Brief & George, 1993). In general, people high on negative affectivity may tend to respond more negatively in general to questions they confronted in the current study.

Directions for future research would be to include other possible (social psychological) antecedents of burnout and turnover in longitudinal research, and to investigate their relative contribution in explaining both phenomena; to control for the impact of dispositional factors, such as negative affectivity, and, as argued before; to include job and organizational commitment as possible moderating factors in research on burnout and turnover.

REFERENCES

- Adams, J. S. (1965). Inequity in social exchange. In L. Berkowitz (Ed.), *Advances in experimental social psychology* (Vol. 2, pp. 267-299). New York: Academic.
- Barnard, C. I. (1938). *The functions of the executive*. Cambridge, MA: Harvard University Press.
- Ben-Dror, R. (1994). Employee turnover in community mental health organization: A developmental stages study. *Community Mental Health Journal*, 30, 243-257.
- Bentler, P. M. (1990). Comparative fit indexes in structural models. *Psychological Bulletin*, 107, 2, 238-246.
- Bentler, P. M., & Bonett, D. G. (1980). Significance tests and goodness of fit in the analysis of covariance structures. *Psychological Bulletin*, 88, 588-606.
- Bollen, K. A., & Scott Long, J. (1993). Introduction. In K. A. Bollen & J. Scott Long (Eds.), *Testing structural equation models* (pp. 1-9). Newbury Park, CA: Sage.
- Boumans, N. P. G., & Landeweerd, J. A. (1993). Some problems concerning the measurement of job characteristics in nursing work. *The European Work and Organizational Psychologist*, 2, 4, 303-317.
- Brauer, M., Judd, C. M., & Gliner, M. D. (1995). The effects of repeated expressions on attitude polarization during group discussions. *Journal of Personality and Social Psychology*, 68, 1014-1029.
- Browne, M. W., & Cudeck, R. (1993). Alternative ways of assessing model fit. In K. A. Bollen & J. Scott Long (Eds.), *Testing structural equation models* (pp. 136-162). Newbury Park, CA: Sage.
- Burke, M. J., Brief, A. P., & George, J. M. (1993). The role of negative affectivity in understanding relations between self-reports of stressors and strains: A comment on the applied psychology literature. *Journal of Applied Psychology*, 78, 3, 402-412.
- Buunk, B. P. (1990). Affiliation and helping interactions within organizations: A critical analysis of the role of social support with regard to occupational stress. In W. Stroebe & M. Hewstone (Eds.), *European review of social psychology* (pp. 293-322). New York: Wiley.
- Buunk, A. P., & Schaufeli, W. B. (1993). Burnout: A perspective from social comparison theory. In W. B. Schaufeli, C. Maslach, & T. Marek (Eds.), *Professional burnout: Recent developments in theory and research* (pp. 53-73). Washington: Taylor & Francis.
- Buunk, A. P., Schaufeli, W. B., & Ybema, J. F. (1994). Burnout, uncertainty and the desire for social comparison among nurses. *Journal of Applied Social Psychology*, 24, 1701-1718.
- Cherniss, C. (1980). *Professional burnout in human service organizations*. New York: Praeger.
- Cherniss, C. (1995). *Beyond burnout*. New York: Routledge.
- Cherniss, C., & Krantz, D. L. (1983). The ideological community as an antidote to burnout in the human services. In B. Farber (Ed.), *Stress and burnout in the human service professions* (pp. 198-212). New York: Pergamon.
- De Jonge, J. (1995). *Job autonomy, well-being, and health: A study among Dutch health care workers* (Ph D thesis). Maastricht: Datawayse.
- Deutsch, M. (1983). Current social psychological perspectives on justice. *European Journal of Social Psychology*, 13, 305-319.
- Edelwich, J., & Brodsky, A. (1980). *Burnout: Stages of disillusionment in the helping professions*. New York: Human Sciences Press.
- Farber, B. A. (1983). *Stress and burnout in the human service professions*. New York: Pergamon.
- Festinger, L. (1954). A theory of social comparison processes. *Human Relations*, 7, 117-140.
- Geurts, S. A., Buunk, A. P., & Schaufeli, W. B. (1994a). Health complaints, social comparisons and absenteeism. *Work and Stress*, 8, 220-234.
- Geurts, S. A., Buunk, A. P., & Schaufeli, W. B. (1994b). Social comparisons: A structural modeling approach. *Journal of Applied Social Psychology*, 24, 1871-1890.
- Geurts, S. A., & Schaufeli, W. B. (1996). *Absenteeism: A social psychological explanation*. Manuscript submitted for publication.
- Geurts, S. A., Schaufeli, W. B., & Buunk, A. P. (1993). Social comparison, inequity, and absenteeism among bus drivers. *The European Work and Organizational Psychologist*, 3, 191-203.
- Groenestijn, E., Buunk, A. P., & Schaufeli, W. B. (1992). Het besmettingsgevaar bij burnout: De rol van sociale vergelijkingsprocessen [The risk 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 en beïnvloeding van intermenselijke en gezondheidsproblemen* (pp. 88-103). Den Haag: VUGA.
- Guzzo, R. A., Noonan, K. A., & Elron, E. (1994). Expatriate managers and the psychological contract. *Journal of Applied Psychology*, 79, 617-626.
- Hackett, R. D., Bycio, P., & Guion, R. M. A. (1989). Absenteeism among hospital nurses: An idiographic-longitudinal analysis. *Academy of Management Journal*, 32, 424-453.
- Hargrove, S. D., Fox, C. J., & Goldman, C. R. (1991). Recruitment, motivation and reinforcement of preprofessionals for public sector mental health careers. *Community Mental Health Journal*, 27, 199-207.
- Hatfield, E., Cacioppo, J. T., & Rapson (1992). In M. S. Clark (Ed.), *Review of personality and social psychology* (Vol. 14, pp. 151-177). Newbury Park, CA: Sage.

- Hatfield, E., & Sprecher, S. (1984). Equity theory and behavior in organizations. In S. B. Bacharach & E. J. Lawler (Eds.), *Research in sociology of organization* (Vol. 3, pp. 95-124). Greenwich, CT: JAI Press.
- Hayduk, L. A. (1987). *Structural equation modelling with LISREL: Essentials and advances*. Baltimore, MD: The John Hopkins University Press.
- Hingley, P., & Cooper, C. L. (1986). *Stress and the nurse manager*. Chichester: Wiley.
- Homans, G. C. (1961). *Social behaviour. Its elementary forms*. New York: Harcourt Brace Jovanovich.
- Jackson, S. E., Schwab, R. L., & Schuler, R. S. (1986). Toward an understanding of the burnout phenomenon. *Journal of Applied psychology*, 71, 630-640.
- Joreskog, K. G. (1993). Testing structural equation models. In K. A. Bollen & J. Scott Long (Eds.), *Testing structural equation models* (pp. 294-316). Newbury Park, CA: Sage.
- Joreskog, K. G., & Sorbom, D. (1993). *LISREL 8 User's reference guide*. Chicago: Scientific Software International.
- Kahill, S. (1988). Symptoms of professional burnout: A review of the empirical evidence. *Canadian Psychology*, 29, 284-297.
- Kenny, D. A. (1979). *Correlation and causality*. New York: Wiley.
- Kessler, R. C., & Greenberg, D. F. (1981). *Linear panel analysis: Models of quantitative change*. New York: Academic.
- Kirschenbaum, A., & Weisberg, J. (1990). Predicting worker turnover: An assessment of intent on actual separations. *Human Relations*, 43, 829-847.
- Lazarus, R. S., & Folkman, S. (1984). *Stress, appraisal and coping*. New York: Springer.
- Lee, R. T., & Ashforth, B. E. (1993a). A longitudinal study of burnout among supervisors and managers: Comparisons 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. (1993b). A further examination of managerial burnout: Toward an integrated model. *Journal of Organizational Behavior*, 14, 3-20.
- Leiter, M. P. (1993). Burnout as 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). Washington: Taylor & Francis.
- Leiter, M. P., & Maslach, C. (1988). The impact of interpersonal environment on burnout and organizational commitment. *Journal of Organizational Behavior*, 9, 297-308.
- 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). Washington: Taylor & Francis.
- Maslach, C., & Jackson, S. E. (1986). *MBI: Maslach Burnout Inventory: Manual research edition*. Palo Alto, CA: Consulting Psychologists Press (first ed. 1981).
- 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. 1-18). Washington: Taylor & Francis.
- Morgan, L. G., & Herman, J. B. (1976). Perceived consequences of absenteeism. *Journal of Applied Psychology*, 61, 738-742.
- Moscovici, S. (1985). Social influence and conformity. In G. Lindzey & E. Aronson (Eds.), *Handbook of social psychology* (pp. 347-412). New York: Random House.
- Mowday, R. T. (1991). Equity theory predictions of behavior in organizations. In R. M. Steers & L. W. Porter (Eds.), *Motivation and work behavior* (pp. 135-163). New York: McGraw-Hill.
- Myers, D. G., & Lamm, H. (1976). The group polarization phenomenon. *Psychological Bulletin*, 82, 602-627.
- Razza, N. J. (1993). Determinants of direct-care staff turnover in group homes for individuals with mental retardation. *Mental Retardation*, 5, 284-291.
- Reilly, N. P. (1994). Exploring a paradox: Commitment as a moderator of the stressor-burnout relationship. *Journal of Applied Social Psychology*, 24, 397-414.
- Robinson, S. L., & Rousseau, D. M. (1994). Violating the psychological contract: not the exception but the norm. *Journal of Organizational Behavior*, 15, 145-259.
- Rosin, H., & Korabik, K. (1991). Workplace variables, affective responses, and intention to leave among women managers. *Journal of Occupational Psychology*, 64, 317-330.
- Rosin, H., & Korabik, K. (1995). Organizational experiences and propensity to leave: A multivariate investigation of men and women managers. *Journal of Vocational Behavior*, 46, 1-16.
- Rousseau, D. M., & Parks, J. M. (1993). The contracts of individuals and organizations. In L. Cummings & B. Staw (Eds.), *Research in organizational behavior* (Vol. 15, pp. 1-43). Greenwich, CT: JAI.
- Rusbult, C. E., & Farrell, D. (1983). A longitudinal test of the investment model: The impact on job satisfaction, job commitment, and turnover of variations in rewards, costs, alternatives, and investments. *Journal of Applied Psychology*, 68, 429-438.
- Sawyer, J. E. (1992). Goal and process clarity: Specification of multiple constructs of role ambiguity and a structural equation model of their antecedents and consequences. *Journal of Applied Psychology*, 77, 130-142.
- Scarpello, V., & Campbell, J. P. (1983). Job satisfaction: are all the parts there? *Personnel Psychology*, 36, 577-600.
- Schachter, S. (1959). *The psychology of affiliation*. Palo Alto, CA: Stanford University Press.
- Schaufeli, W. B., & Van Dierendonck, D. (1993). The construct validity of two burnout measures. *Journal of Organizational Behavior*, 14, 631-647.
- Schaufeli, W. B., & Van Dierendonck, D. (1994). Burnout, een concept gemeten. De Nederlandse versie van de Maslach Burnout Inventory (MBI-NL) [Burnout, the measurement of a concept: The Dutch version of the Maslach Burnout Inventory]. *Gedrag & Gezondheid*, 22, 153-172.
- Schaufeli, W. B., Van Dierendonck, D., & Van Gorp, K. (1996). Burnout and reciprocity: Towards a dual-level social exchange model. *Work and Stress*, 10, 225-237.
- Schaufeli, W. B., Maslach, C., & Marek, T. (1993). The future of burnout. In W. B. Schaufeli, C. Maslach, & T. Marek (Eds.), *Professional burnout: Recent developments in theory and research* (pp. 253-259). Washington: Taylor & Francis.
- Semmer, N., Zapf, D., & Greif, S. (1996). "Shared job strain": A new approach for assessing the validity of job stress measurements. *Journal of Occupational and Organizational Psychology*, 69, 293-310.
- Sharrard, H. H. (1992). Feeling the strain: job stress and satisfaction of direct-care staff in mental handicap services. *The British Journal of Mental Subnormality*, 38, 32-38.
- Sherif, M. (1935). A study of some social factors in perception. *Archives of Psychology*, 27.
- Shirom, A. (1989). Burnout in work organizations. In C. L. Cooper & I. Robertson (Eds.), *International review of industrial and organizational psychology* (pp. 25-48). Chichester, England: Wiley.
- Spector, P. E. (1992). A consideration of the validity and meaning of self-report measures of job conditions. In C. L. Cooper & I. T. Robertson (Eds.), *International review of industrial and organizational psychology* (pp. 281-328). Chichester: Wiley.
- Steel, R. P., & Ovalle, N. K. (1984). A review and meta-analysis of research on the relationship between behavioral intentions and employee turnover. *Journal of Applied Psychology*, 69, 673-686.
- Sullins, E. S. (1991). Emotional contagion revisited: Effects of social comparison and

- Hatfield, E., & Sprecher, S. (1984). Equity theory and behavior in organizations. In S. B. Bacharach & E. J. Lawler (Eds.), *Research in sociology of organization* (Vol. 3, pp. 95-124). Greenwich, CT: JAI Press.
- Hayduk, L. A. (1987). *Structural equation modelling with LISREL: Essentials and advances*. Baltimore, MD: The John Hopkins University Press.
- Hingley, P., & Cooper, C. L. (1986). *Stress and the nurse manager*. Chichester: Wiley.
- Homans, G. C. (1961). *Social behaviour. Its elementary forms*. New York: Harcourt Brace Jovanovich.
- Jackson, S. E., Schwab, R. L., & Schuler, R. S. (1986). Toward an understanding of the burnout phenomenon. *Journal of Applied psychology*, 71, 630-640.
- Joreskog, K. G. (1993). Testing structural equation models. In K. A. Bollen & J. Scott Long (Eds.), *Testing structural equation models* (pp. 294-316). Newbury Park, CA: Sage.
- Joreskog, K. G., & Sorbom, D. (1993). *LISREL 8 User's reference guide*. Chicago: Scientific Software International.
- Kahill, S. (1988). Symptoms of professional burnout: A review of the empirical evidence. *Canadian Psychology*, 29, 284-297.
- Kenny, D. A. (1979). *Correlation and causality*. New York: Wiley.
- Kessler, R. C., & Greenberg, D. F. (1981). *Linear panel analysis: Models of quantitative change*. New York: Academic.
- Kirschenbaum, A., & Weisberg, J. (1990). Predicting worker turnover: An assessment of intent on actual separations. *Human Relations*, 43, 829-847.
- Lazarus, R. S., & Folkman, S. (1984). *Stress, appraisal and coping*. New York: Springer.
- Lee, R. T., & Ashforth, B. E. (1993a). A longitudinal study of burnout among supervisors and managers: Comparisons 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. (1993b). A further examination of managerial burnout: Toward an integrated model. *Journal of Organizational Behavior*, 14, 3-20.
- Leiter, M. P. (1993). Burnout as 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). Washington: Taylor & Francis.
- Leiter, M. P., & Maslach, C. (1988). The impact of interpersonal environment on burnout and organizational commitment. *Journal of Organizational Behavior*, 9, 297-308.
- 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). Washington: Taylor & Francis.
- Maslach, C., & Jackson, S. E. (1986). *MBI Maslach Burnout Inventory: Manual research edition*. Palo Alto, CA: Consulting Psychologists Press (first ed. 1981).
- 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. 1-18). Washington: Taylor & Francis.
- Morgan, L. G., & Herman, J. B. (1976). Perceived consequences of absenteeism. *Journal of Applied Psychology*, 61, 738-742.
- Moscovici, S. (1985). Social influence and conformity. In G. Lindzey & E. Aronson (Eds.), *Handbook of social psychology* (pp. 347-412). New York: Random House.
- Mowday, R. T. (1991). Equity theory predictions of behavior in organizations. In R. M. Steers & L. W. Porter (Eds.), *Motivation and work behavior* (pp. 135-163). New York: McGraw-Hill.
- Myers, D. G., & Lamm, H. (1976). The group polarization phenomenon. *Psychological Bulletin*, 82, 602-627.
- Razza, N. J. (1993). Determinants of direct-care staff turnover in group homes for individuals with mental retardation. *Mental Retardation*, 5, 284-291.
- Reilly, N. P. (1994). Exploring a paradox: Commitment as a moderator of the stressor-burnout relationship. *Journal of Applied Social Psychology*, 24, 397-414.
- Robinson, S. L., & Rousseau, D. M. (1994). Violating the psychological contract: not the exception but the norm. *Journal of Organizational Behavior*, 15, 145-259.
- Rosin, H., & Korabik, K. (1991). Workplace variables, affective responses, and intention to leave among women managers. *Journal of Occupational Psychology*, 64, 317-330.
- Rosin, H., & Korabik, K. (1995). Organizational experiences and propensity to leave: A multivariate investigation of men and women managers. *Journal of Vocational Behavior*, 46, 1-16.
- Rousseau, D. M., & Parks, J. M. (1993). The contracts of individuals and organizations. In L. Cummings & B. Staw (Eds.), *Research in organizational behavior* (Vol. 15, pp. 1-43). Greenwich, CT: JAI.
- Rusbult, C. E., & Farrell, D. (1983). A longitudinal test of the investment model: The impact on job satisfaction, job commitment, and turnover of variations in rewards, costs, alternatives, and investments. *Journal of Applied Psychology*, 68, 429-438.
- Sawyer, J. E. (1992). Goal and process clarity: Specification of multiple constructs of role ambiguity and a structural equation model of their antecedents and consequences. *Journal of Applied Psychology*, 77, 130-142.
- Scarpello, V., & Campbell, J. P. (1983). Job satisfaction: are all the parts there? *Personnel Psychology*, 36, 577-600.
- Schachter, S. (1959). *The psychology of affiliation*. Palo Alto, CA: Stanford University Press.
- Schaufeli, W. B., & Van Dierendonck, D. (1993). The construct validity of two burnout measures. *Journal of Organizational Behavior*, 14, 631-647.
- Schaufeli, W. B., & Van Dierendonck, D. (1994). Burnout, een concept gemeten. De Nederlandse versie van de Maslach Burnout Inventory (MBI-NL) [Burnout, the measurement of a concept: The Dutch version of the Maslach Burnout Inventory]. *Gedrag & Gezondheid*, 22, 153-172.
- Schaufeli, W. B., Van Dierendonck, D., & Van Gorp, K. (1996). Burnout and reciprocity: Towards a dual-level social exchange model. *Work and Stress*, 10, 225-237.
- Schaufeli, W. B., Maslach, C., & Marek, T. (1993). The future of burnout. In W. B. Schaufeli, C. Maslach, & T. Marek (Eds.), *Professional burnout: Recent developments in theory and research* (pp. 253-259). Washington: Taylor & Francis.
- Semmer, N., Zapf, D., & Greif, S. (1996). "Shared job strain": A new approach for assessing the validity of job stress measurements. *Journal of Occupational and Organizational Psychology*, 69, 293-310.
- Sharrard, H. H. (1992). Feeling the strain: job stress and satisfaction of direct-care staff in mental handicap services. *The British Journal of Mental Subnormality*, 38, 32-38.
- Sherif, M. (1935). A study of some social factors in perception. *Archives of Psychology*, 27.
- Shirom, A. (1989). Burnout in work organizations. In C. L. Cooper & I. Robertson (Eds.), *International review of industrial and organizational psychology* (pp. 25-48). Chichester, England: Wiley.
- Spector, P. E. (1992). A consideration of the validity and meaning of self-report measures of job conditions. In C. L. Cooper & I. T. Robertson (Eds.), *International review of industrial and organizational psychology* (pp. 281-328). Chichester: Wiley.
- Steel, R. P., & Ovalle, N. K. (1984). A review and meta-analysis of research on the relationship between behavioral intentions and employee turnover. *Journal of Applied Psychology*, 69, 673-686.
- Sullins, E. S. (1991). Emotional contagion revisited: Effects of social comparison and

- expressive style of mood convergence. *Personality and Social Psychology Bulletin*, 17, 166-174.
- Syroit, J., Lodewijckx, H., Franssen, E., & Gerstel, I. (1993). Organizational commitment and satisfaction with work among transferred employees: An application of referent cognitions theory. *Social Justice Research*, 6, 219-234.
- Tett, R. P., & Meyer, J. P. (1993). Job satisfaction, organizational commitment and turnover: Path analyses based on meta-analytic findings. *Personnel Psychology*, 46, 252-293.
- Van Dierendonck, D. (1997). *Balancing give and take, an equity approach to burnout* (PhD-thesis). Enschede: Print Partners Ipskamp.
- Van Dierendonck, D., Schaufeli, W. B., & Buunk, A. P. (1996a). Inequity among human service professionals: Measurement and relation to burnout. *Basic and Applied Social Psychology*, 18, 429-451.
- Van Dierendonck, D., Schaufeli, W. B., & Buunk, A. P. (1996b). *Burnout and equity among human service professionals: A longitudinal study*. Manuscript submitted for publication.
- Van Yperen, N. W., Buunk, A. P., & Schaufeli, W. B. (1992). Communal orientation and the burnout syndrome among nurses. *Journal of Applied Social Psychology*, 22, 173-189.
- Van Yperen, N. W., Hagendoorn, M., & Geurts, S. A. (1996). Intent to leave and absenteeism as reactions to perceived inequity: The role of psychological and social constraints. *Journal of Occupational Psychology*, 69, 367-372.
- Verschuren, P. J. M. (1991). *Structurele modellen tussen theorie en praktijk* [Structural models between theory and practice]. Meppel: Het Spectrum.
- Walster, E., Walster, G. W., & Berscheid, E. (1978). *Equity: Theory and research*. Boston, MA: Allyn & Bacon.
- Wheeler, L. (1991). A brief history of social comparison theory. In J. M. Suls & T. A. Wills (Eds.), *Social comparison: Contemporary theory and research* (pp. 3-21). Hillsdale, NJ: Erlbaum.
- Williams, L. J., & Hazer, J. T. (1986). Antecedents and consequences of satisfaction and commitment in turnover models: A reanalysis using latent variable structural equation methods. *Journal of Applied Psychology*, 71, 2, 219-231.