

Burnout and Inequity Among Human Service Professionals: A Longitudinal Study

Dirk van Dierendonck
University of Amsterdam

Wilmar B. Schaufeli
Utrecht University

Bram P. Buunk
University of Groningen

In a composite sample of human service professionals ($N = 245$), longitudinal relations across 1 year were tested between equity in the professional–recipient relationship and burnout (i.e., emotional exhaustion, depersonalization, and reduced personal accomplishment). The 1st research question was whether inequity influenced burnout across time. The 2nd research question was whether longitudinal relations between equity and burnout were curvilinear, as predicted by equity theory. The results confirmed that inequity affects the central component of burnout (i.e., emotional exhaustion) and that this relation is curvilinear. Feeling more deprived and feeling more advantaged resulted in higher future emotional exhaustion levels. No indication was found for a longitudinal relation between inequity and depersonalization. A synchronous relation was found suggesting that personal accomplishment influences equity.

A basic characteristic of the work of human service professionals is their often emotionally charged contacts with the recipients of their care. It is therefore not surprising that these contacts are considered to play a central role as determinants of burnout (e.g., Cordes & Dougherty, 1993; Jackson, Schwab, & Schuler, 1986; Skorupa & Agresti, 1993). The role of these contacts also shows up in the definition of burnout as “a psychological syndrome of emotional exhaustion, depersonalization, and reduced personal accomplishment that can occur among individuals who work with other people in some capacity” (Maslach, 1993, p. 20). Hence, Buunk and Schaufeli (1993) argued that to enhance one’s understanding of the role interactions with recipients play in the development of burnout, the professional–recipient relationship should be considered as an ongoing process of social exchange, that is, governed by principles of equity.

The goal of the present research is to investigate longitudinal relationships between social exchange processes with recipients and burnout among human service professionals. Equity theory, one of the most influential social exchange theories, outlines the conditions that make individuals perceive a situation as inequitable (Adams, 1965). According to this theory, people evaluate their relationships with others in terms of rewards, costs, investments, and profits (see La Gaipa, 1977). Individuals perceive a situation as fair when their own ratio between outcomes (e.g., gratitude, status, and appreciation) and inputs (e.g., time, effort, and skills) equals that of a comparison other. A basic proposition of equity theory is that if people perceive relationships as inequitable, they feel distressed (Adams, 1965; Walster, Walster, & Berscheid, 1978). When one’s outcomes relative to one’s inputs are lower than those of a comparison other, one feels *deprived*, and when one’s own outcomes relative to one’s inputs are higher than those of a comparison other, one feels *advantaged*. Furthermore, equity theory predicts a curvilinear relationship between equity and distress: perceiving oneself as deprived as well as perceiving oneself as advantaged results in distress, as has been confirmed by many studies on intimate relationships (e.g., Sprecher, 1992; Van Yperen & Buunk, 1990). As has recently been argued by Buunk and Schaufeli (1999), reciprocity is probably an evolutionarily rooted psychological principle. That is, by engaging in relationships that are governed by expectations of

Dirk van Dierendonck, Department of Work and Organizational Psychology, University of Amsterdam, Amsterdam, the Netherlands; Wilmar B. Schaufeli, Department of Social and Organizational Psychology, Utrecht University, Utrecht, the Netherlands; Bram P. Buunk, Department of Social Psychology, University of Groningen, Groningen, the Netherlands.

Correspondence concerning this article should be addressed to Dirk van Dierendonck, University of Amsterdam, Department of Work and Organizational Psychology, Roeterstraat 15, 1018 WB Amsterdam, the Netherlands. Electronic mail may be sent to dierendo@psy.uva.nl

reciprocity, our ancestors increased their likelihood of survival.

In the present study, it is assumed that burnout is related to perceptions of inequity in the relationship between the professional and the recipients of his or her care. It may be assumed that this relationship is complementary by its very nature: The professional provides care, assistance, help, and support, whereas the recipient is supposed to receive. Although it may be unrealistic for professionals to expect some kind of reward, they do expect recipients at least to show gratitude or to make a real effort to get well (Cherniss, 1995). However, recipients frequently take the professionals' effort for granted or are unwilling to follow their advice (cf. Maslach, 1982, Maslach & Jackson, 1982). Indeed, several cross-sectional studies among nurses (VanYperen, Buunk, & Schaufeli, 1992, Schaufeli & Janczur, 1994; VanYperen, 1996, 1998), teachers (Van Horn, Schaufeli, & Enzmann, 1999), police officers (Kop, Euwerna, & Schaufeli, 1999), and general practitioners (Van Dierendonck, Schaufeli & Sixma, 1994) confirm that professionals' perceptions of inequity are related to all three dimensions of burnout. In addition, two studies among therapists working in a forensic psychiatric center and among staff members working in the direct care of mentally disabled people (Van Dierendonck, Schaufeli, & Buunk, 1996) showed that, as predicted by equity theory, professionals who felt deprived and professionals who felt advantaged in the relationship with the recipients were more burned out, especially on the emotional exhaustion dimension, as compared with the professionals who perceived themselves as equitable in this relationship.

Despite the growing cross-sectional evidence, thus far, no longitudinal studies have been published to test the impact of equity in the relationship with recipients on burnout. Equity theory presupposes that the cognitive evaluation of an exchange relationship precedes distress, a negative emotional response. Because burnout includes an emotional reaction (i.e., emotional exhaustion), we hypothesized that inequity precedes burnout. Therefore, the first research question was to investigate whether inequity in the professional-recipient relationship influences burnout across time. The second, and closely related, research question was to investigate whether the curvilinear effects of inequity on burnout that were found in cross-sectional research (Van Dierendonck et al., 1996) can be longitudinally replicated.

In sum, this article aimed at answering the following research question among a sample of human

service professionals: What is the nature of the relationship between inequity in the relationship with recipients and burnout (i.e., emotional exhaustion, depersonalization, and personal accomplishment)? It was expected that perceptions of inequity lead to burnout rather than the other way around and that this relationship is curvilinear, as may be expected on the basis of equity theory and cross-sectional findings.

Method

Participants

The composite sample of this study consisted of four groups of Dutch human service professionals. Two groups participated as control groups in the evaluation of an individual burnout prevention program among professionals working in direct care with mentally disabled people ($n = 42$ and $n = 83$). The professionals of these groups were also included in the earlier published research on the effects of this program (for more information, see Van Dierendonck, Schaufeli, & Buunk, 1998). The professionals of the other two groups worked in a health care organization with two departments: a nursing home ($n = 73$) and a lung clinic ($n = 47$). These professionals included nurses, orderlies, physicians, and physical therapists. A composite sample was used because structural equation modeling needs a sufficient number of respondents to provide valid estimates (Anderson & Gerbing, 1988). A sample size somewhere between 200 and 300, as used in this study, seems to be a sufficient number.

The interval between the two measurement points was 1 year in all groups. Of the 568 participants who took part in the first survey (response rate between 68% and 72%), 245 also participated in the follow-up (attrition rate = 43%). The sample consisted of 52 male (21%) and 193 female (79%) professionals. The mean age of the participants was 33.8 years ($SD = 8.0$), with a mean of 7.2 years ($SD = 5.7$) of work experience in their organization.

Measures

Burnout Burnout was measured with a revised Dutch version of the Maslach Burnout Inventory, which consists of three subscales: Emotional Exhaustion, Depersonalization, and Personal Accomplishment (Maslach, Jackson, & Leiter, 1996). We slightly adjusted the Dutch version so its validity and reliability improved (Schaufeli & Van Dierendonck, 2000). The original items 12 ("I feel energetic") and 16 ("Working with people directly puts too much stress on me") were eliminated, as suggested by Byrne (1993) and by Schaufeli and Van Dierendonck (1993). Using confirmatory factor analysis, both previous studies showed that the factorial validity of these two items is insufficient. Because the Depersonalization scale usually has a rather low internal consistency (Schaufeli, Enzmann, & Girault, 1993), two items were added: "Recipients bother me with personal matters, but I ignore them" and "I avoid personal contact with recipients as much as possible." Finally, item 22 of the original Depersonalization scale ("I feel recipients blame me for some of their problems") was dropped because of its

poor item-total correlation. Accordingly, a six-item Depersonalization scale resulted that showed a low but acceptable internal consistency (see Table 1, see also Van Dierendonck et al., 1996, 1998)

Perceptions of equity. Perceptions of equity were measured for the relationship with the recipients by a measure based on the Adams formula (Van Dierendonck et al., 1996) First, some examples of investments in and outcomes from the relationship with recipients were described (e.g., time, patience, effort, appreciation, and gratitude) Next, four questions were asked about the investments in the relationship of both parties and about their outcomes That is, in the relationship with recipients "Overall, how much effort do you feel you put into the relationships with recipients?" "Overall, how much do you feel recipients put into the relationships with you?" "How much benefit do you feel you receive from the relationships that you have with recipients?" and "How much benefit do you feel they receive from their relationships with you?" A 7-point scale was used, ranging from *very little* (1) to *very much* (7) The degree of equity was calculated by using the Adams (1965) formula

$$\frac{\text{Outcomes Self}}{\text{Inputs Self}} - \frac{\text{Outcomes Recipients}}{\text{Inputs Recipients}} = \text{Degree Equity}$$

A resulting value of zero is indicative of an equitable relationship Values less than zero are indicative of deprived perceptions, and values greater than zero are indicative of advantaged perceptions

Results

The strength and the direction of the relations between the three burnout dimensions and inequity in the relationship with recipients were pairwise as-

sessed with a so-called two-wave panel model (Zapf, Dormann, & Frese, 1996). The preferred method for investigating such longitudinal directions is panel analysis with structural equation models (Kessler & Greenberg, 1981). Our analysis combines two methods into one: exploring longitudinal directions using panel analysis and investigating curvilinear relations using multiple regression (Aiken & West, 1991). This approach allows for analyses similar to cross-lagged panel designs and multiple regression analysis. An additional advantage is that this approach provides statistical tests that allow for directional conclusions, which are especially valuable if an important goal is to find empirical evidence for theoretically expected longitudinal directions In addition, structural equation models can reveal synchronous relations between variables. Synchronous effects are represented in the model by a path of one variable (e.g., equity) measured at Time 2 that influences another variable (e.g., burnout) also measured at Time 2. Synchronous effects can be distinguished from correlations in that they are directional and that these effects do not necessarily occur simultaneously at Time 2. The likelihood of a synchronous relation is tested because if the "true" effect of time is much shorter than the time lag of the study, a model with a synchronous effect will represent the longitudinal data more adequately than a model with a longitudinal effect in the same direction (for more information, see Zapf et al., 1996).

Using LISREL 8 (Jöreskog & Sörbom, 1993), we tested six structural equation models three longitudinal and three synchronous models for each burnout

Table 1
Descriptive Statistics, Reliability Estimates, and Intercorrelations of Variables (N = 245)

Variable	M	SD	α	Intercorrelation							
				1	2	3	4	5	6	7	8
Time 1											
1. Emotional exhaustion	11.55	6.66	.85	—							
2. Depersonalization	4.66	3.48	.57	.44**	—						
3. Personal accomplishment	31.15	5.93	.74	-.28**	-.30**	—					
4. Equity recipients	-0.69	0.90		-.08	-.03	.10	—				
Time 2											
5. Emotional exhaustion	12.01	7.14	.85	.59**	.32**	-.12	-.01	—			
6. Depersonalization	4.40	3.46	.67	.19**	.64**	-.25**	.03	.40**	—		
7. Personal accomplishment	31.77	5.67	.78	-.20**	-.22**	.66**	.07	-.22**	-.29**	—	
8. Equity recipients	-0.59	0.78		-.14*	-.00	.00	.58**	-.09	.08	.04	—

Note The equity measure is a calculated score; therefore, no reliability coefficient could be calculated.

* $p < .05$ ** $p < .01$

dimension. Because there are no hard criteria for accepting a model to be "true" in structural equation modeling, it is imperative to empirically test the hypothesized relationships against possible alternatives. By comparing the fit of each of these models with that of the stability model (which assumes that, with the exception of stabilities across time, no other relationships between variables exist), we can determine what is the most likely direction, shape (linear or curvilinear), and time frame (1 year longitudinal or synchronous) of the effect. Figure 1 shows the model that consisted of six variables: a particular burnout dimension at Time 1 (T1) and Time 2 (T2), the linear term of equity, and the quadratic term of equity. The quadratic terms were added to the model to test for the expected curvilinear relation between equity and burnout. The linear terms were centered before calculating the quadratic terms to correct for multicollinearity (Aiken & West, 1991). In the so-called stability model, only the stability coefficients (arrows a, b, and c) and the correlations at Time 1 (arrows d, e, and f) were released; the cross-lagged coefficients (arrows g, h, and i) and the synchronous coefficients at T2 (arrows j, k, and l) were fixed at zero. In each of the six models that were tested, the stability model was adjusted by releasing one or two additional

paths. In Tables 2 and 3, these paths are described as longitudinal models ($\text{burnout}_{T1} \rightarrow \text{equity}_{T2}$, $\text{equity}_{T1} \rightarrow \text{burnout}_{T2}$ and $\text{equity}_{T1} \rightarrow \text{burnout}_{T2}$ & $\text{equity}_{T1}^2 \rightarrow \text{burnout}_{T2}$) and as synchronous models ($\text{burnout}_{T2} \rightarrow \text{equity}_{T2}$, $\text{equity}_{T2} \rightarrow \text{burnout}_{T2}$ and $\text{equity}_{T2} \rightarrow \text{burnout}_{T2}$ & $\text{equity}_{T2}^2 \rightarrow \text{burnout}_{T2}$), respectively. Notice that in the curvilinear models, two paths were released, the linear term and the curvilinear term, as is recommended when testing for curvilinear effects with multiple regression (Aiken & West, 1991). For a curvilinear effect to be acknowledged, the model encompassing the curvilinear effect needs to significantly improve the fit of the model that only includes the linear term.

Table 2 shows the fit of the models examining the longitudinal relations between emotional exhaustion and equity in the relationship with recipients. With respect to the relation between emotional exhaustion and equity in the relationship with recipients, the model encompassing a longitudinal curvilinear relation from equity in the relationship with recipients at T1 to emotional exhaustion at T2 shows the best fit. This model improved the fit of the stability model and the model with the linear term significantly, $\Delta\chi^2(2, N = 245) = 5.96, p = .05$ and $\Delta\chi^2(1, N = 245) = 5.46, p = .02$, respectively. The absolute fit

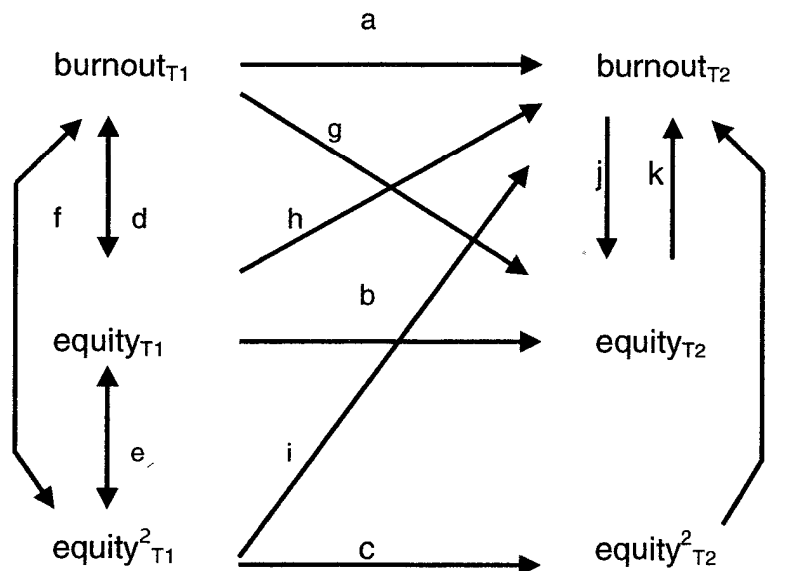


Figure 1. Model for testing longitudinal relations between burnout and equity. Arrows a, b, and c are the stability coefficients, and arrows d, e, and f are the covariances at Time 1 (T1); arrows g, h, and i are the cross-lagged coefficients, and arrows j, k, and l are the synchronous coefficients at Time 2 (T2).

Table 2
Longitudinal Relations Between Emotional Exhaustion and Equity in the Relationship With Recipients (N = 245)

Path	χ^2	df	p	GFI	CFI	$\Delta\chi^2$	p
EE ↔ EQR							
Stability model	105.71	9	.00	.85	.99		
Longitudinal models							
EE _{T1} → EQR _{T2}	105.47	8	.00	.85	.99	.24	.62
EQR _{T1} → EE _{T2}	105.21	8	.00	.85	.99	.50	.48
EQR _{T1} → EE _{T2} & EQR _{T1} ² → EE _{T2}	99.75	7	.00	.86	.99	5.96	.05
Synchronous models							
EE _{T2} → EQR _{T2}	103.49	8	.00	.85	.99	2.22	.14
EQR _{T2} → EE _{T2}	105.38	8	.00	.85	.99	.33	.57
EQR _{T2} → EE _{T2} & EQR _{T2} ² → EE _{T2}	104.87	7	.00	.85	.99	.84	.66

Note $\Delta\chi^2$ signifies the change with the stability model. GFI = goodness-of-fit index, CFI = comparative fit index, EE = emotional exhaustion, EQR = equity in relationship with recipients; T1 = Time 1, T2 = Time 2

of this model was still nonsignificant because of the inclusion of both the linear and curvilinear terms of equity. A large part of the remaining variance is due to covariance between the linear and curvilinear terms at T2. This covariance was fixed at zero to test the curvilinear hypothesis in line with the method used in multiple regression analysis. By allowing the linear and curvilinear terms of equity at T2 to covary in the last model, the fit improved considerably to $\chi^2(6, N = 245) = 20.18, p = .002$, goodness-of-fit index (GFI) = .97, comparative fit index (CFI) = 1.00.

Figure 2 graphically displays the relation between

equity in the relationship with recipients at T1 and emotional exhaustion at T2, controlling for emotional exhaustion at T1. Data from a multiple regression analysis were used to depict this curvilinear effect. The curve shows that compared with a slightly deprived relationship, an advantaged relationship as well as a deprived relationship leads to more emotional exhaustion, hereby confirming the hypothesis. The curve in Figure 3 has two remarkable characteristics. First, the lowest level of emotional exhaustion was not found for the equitable relationship (0 points) but was found for a relationship that was perceived as slightly deprived (≈ -2 points). Second, an advan-

Table 3
Longitudinal Relations Between Depersonalization and Equity in the Relationship With Recipients (N = 245)

Path	χ^2	df	p	GFI	CFI	$\Delta\chi^2$	p
DEP ↔ EQR							
Stability model	97.94	9	.00	.86	.99		
Longitudinal models							
DEP _{T1} → EQR _{T2}	97.51	8	.00	.86	.99	.43	.51
EQR _{T1} → DEP _{T2}	97.79	8	.00	.86	.99	.15	.70
EQR _{T1} → DEP _{T2} & EQR _{T1} ² → DEP _{T2}	97.66	7	.00	.86	.99	.28	.87
Synchronous models							
DEP _{T2} → EQR _{T2}	97.93	8	.00	.86	.99	.01	.92
EQR _{T2} → DEP _{T2}	97.89	8	.00	.86	.99	.05	.83
EQR _{T2} → DEP _{T2} & EQR _{T2} ² → DEP _{T2}	97.25	7	.00	.86	.99	.69	.71

Note $\Delta\chi^2$ signifies the change with the stability model. GFI = goodness-of-fit index, CFI = comparative fit index, DEP = depersonalization; EQR = equity in relationship with recipients, T1 = Time 1, T2 = Time 2

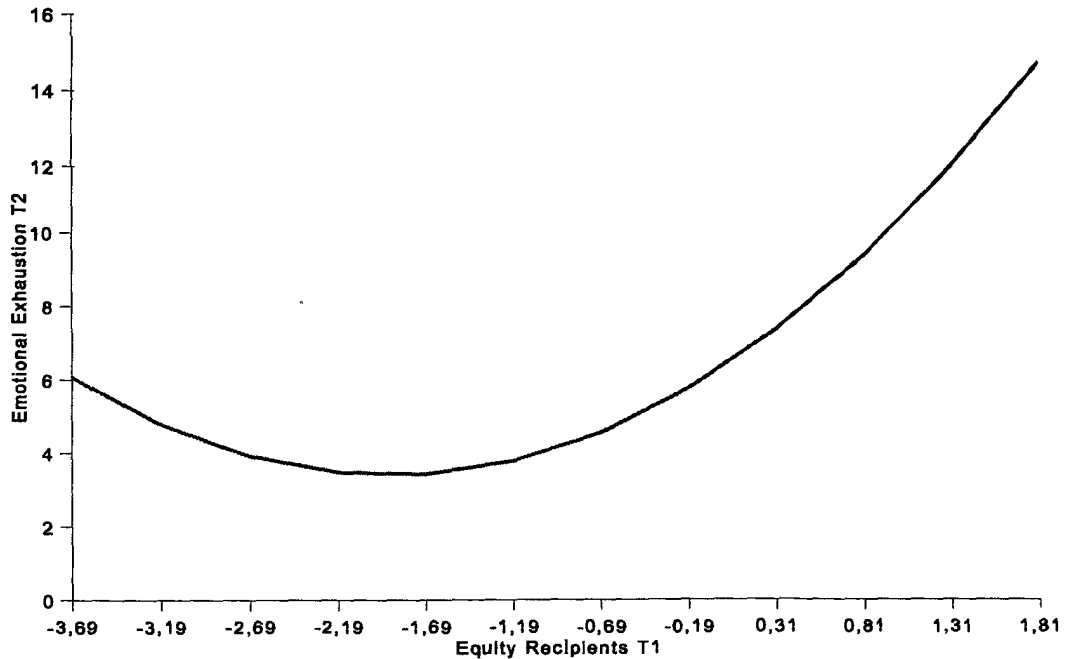


Figure 2 Curvilinear relation between equity in the relationship with recipients at Time 1 (T1) and emotional exhaustion at Time 2 (T2)

tagged relationship at T1 had a stronger negative effect on emotional exhaustion at T2 than a deprived relationship

The stability model of depersonalization and equity in the relationship with recipients was not significantly improved with either one of the causal or one of the synchronous models (see Table 3). Accordingly, depersonalization and equity in the relationship with recipients seem to be unrelated in this research.

The relation between personal accomplishment and equity in the relationship with recipients could not be unequivocally determined. The stability model was significantly improved with the synchronous relation of personal accomplishment at T2 toward equity in the relationship with recipients at T2, $\Delta\chi^2(1, N = 245) = 4.44, p = .04$, rendering this the best-fitting model. The path coefficient for the linear relationship is .16, signifying that feelings of personal accomplishment led to perceiving more benefits from the relationship with recipients. As with emotional exhaustion, by allowing the linear and curvilinear terms of equity at T2 to covary in this model, the fit improved considerably to $\chi^2(6, N = 245) = 20.82, p = .004, GFI = .97, CFI = 1.00$.

Nevertheless, it should be noted that the improvement in fit of the curvilinear synchronous model (equity in the relationship with recipients_{T2} and equity in the relationship with recipients_{T2}² → personal accomplishment_{T2}) also approached significance in comparison with both the stability model and the linear model, $\Delta\chi^2(2, N = 245) = 5.73, p = .06$ and $\Delta\chi^2(1, N = 245) = 3.07, p = .08$, respectively.

In a final step, we examined together in one model the relations between the three burnout dimensions on the one hand and equity in the relationship with recipients on the other hand. In this model, those paths were released that had shown the best fit in the above described analyses. The fit of the model was $\chi^2(26, N = 245) = 75.92, p = .000, GFI = .94, CFI = .97$. The modification indices showed that this model could be meaningfully improved by releasing two synchronous paths between the burnout dimensions. That is, the relation between depersonalization at T2 and emotional exhaustion at T2 was released to be estimated, as was the relation between personal accomplishment at T2 and depersonalization at T2. The fit of this slightly revised model, $\chi^2(24, N = 245) = 49.86, p = .001, GFI = .96, CFI = .94$, was significantly better than that of the original model,

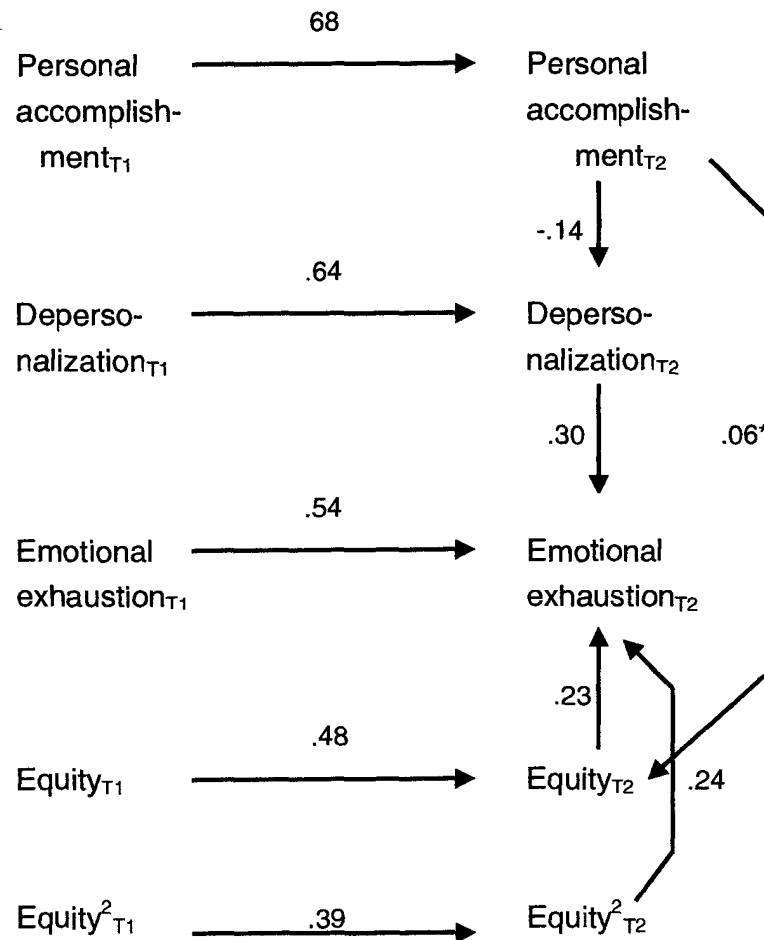


Figure 3 Model of longitudinal and synchronous relations between burnout and equity: standardized solution. The intercorrelations between the variables at T1 are not depicted for reasons of clarity. All coefficients are significant ($p < .05$) except * $p = .07$. T1 = Time 1; T2 = Time 2.

$\Delta\chi^2(2, N = 245) = 26.06, p < .001$. These changes made in the revised model are in line with the results of Van Dierendonck, Schaufeli, and Buunk (2000), who performed secondary data analyses on four longitudinal data sets (i.e., Jackson et al., 1986; Leiter, 1990; Lee & Ashforth, 1993; Leiter & Durup, 1996). They found that personal accomplishment influences depersonalization either longitudinally or synchronously, and depersonalization on its turn synchronously influences emotional exhaustion. Figure 2 depicts the standardized path coefficients of the revised model. All coefficients are significant ($p < .05$), except for the

relation between personal accomplishment and equity in the relationship with recipients. Compared with the results of Table 4, the path coefficient of this linear relation dropped from .16 to .06 ($p = .07$).

In sum, the results with respect to possible relationships between equity in the relationship with recipients and burnout show that equity in the relationship with recipients longitudinally and curvilinearly influences emotional exhaustion. Furthermore, no relation was found between equity in the relationship with recipients and depersonalization. Finally, personal accomplishment might have a positive synchro-

Table 4
Longitudinal Relations Between Personal Accomplishment and Equity in the Relationship With Recipients (N = 245)

Path	χ^2	df	p	GFI	CFI	$\Delta\chi^2$	p
PA \leftrightarrow EQR							
Stability model	103.22	9	.00	.85	.99		
Longitudinal models							
PA _{T1} \rightarrow EQR _{T2}	102.81	8	.00	.86	.99	.41	.52
EQR _{T1} \rightarrow PA _{T2}	103.20	8	.00	.85	.99	.02	.89
EQR _{T1} \rightarrow PA _{T2} & EQR _{T1} ² \rightarrow PA _{T2}	102.49	7	.00	.86	.99	.73	.69
Synchronous models							
PA _{T2} \rightarrow EQR _{T2}	98.78	8	.00	.86	.99	4.44	.04
EQR _{T2} \rightarrow PA _{T2}	100.56	8	.00	.86	.99	2.66	.10
EQR _{T2} \rightarrow PA _{T2} & EQR _{T2} ² \rightarrow PA _{T2}	97.49	7	.00	.86	.99	5.73	.06

Note. $\Delta\chi^2$ signifies the change with the stability model. GFI = goodness-of-fit index, CFI = comparative fit index, PA = personal accomplishment; EQR = equity in relationship with recipients, T1 = Time 1, T2 = Time 2.

nous influence on equity in the relationship with recipients.

Discussion

In this article, the longitudinal and synchronous relations were investigated between equity in the relationship with recipients and the three burnout dimensions. Additionally, the expected curvilinear relation between equity and burnout was investigated.

With respect to the direction and the time frame of the relations between equity and burnout, two significant relations were found. Of these two, one was a curvilinear relation in which equity influenced burnout and not the other way around. This longitudinal finding validates previous cross-sectional findings. It can be concluded that among human service professionals, perceptions of equity have a curvilinear effect on emotional exhaustion as suggested by Van Dierendonck et al. (1996). As found cross-sectionally in the study by van Dierendonck et al., feeling more deprived as well as feeling more advantaged resulted longitudinally in more emotional exhaustion. However, contrary to what equity theory predicts, feeling advantaged resulted in more emotional exhaustion than feeling deprived. This finding and the fact that the lowest level of emotional exhaustion was found among professionals with a deprived relationship strengthen the explanation that professional–recipient relationships are asymmetrical by their very nature. Obviously, an advantaged relationship runs counter to the professional's attitude (which is directed at

giving) in such a strong and fundamental way that it might become stressful in itself.

The lack of a longitudinal or synchronous relation between inequity and depersonalization is surprising. Depersonalization is the most recipient-oriented dimension of burnout. It seems that the increase in emotional exhaustion as a result of feeling deprived and advantaged is not accompanied by a change in the attitude toward the recipients. The results of the model depicted in Figure 3 confirm earlier findings of Van Dierendonck et al. (2000), who observed that burnout is the result of a failing coping process in which depersonalization possibly signifies inadequately coping with the demands of the job. This coping style is negatively influenced by a reduced sense of personal accomplishment.

The present study has a number of limitations. First, we cannot exclude that the weaker results with respect to depersonalization are artifacts of the low internal consistency at T1. Note, however, that a low internal consistency is often found for the Depersonalization subscale of the Maslach Burnout Inventory (see Schaufeli & Enzmann, 1988). It also is possible that the two items that were added to the scale less accurately capture the depersonalization concept. Cooper and Richardson (1986) argued that weak measurement may lead to an underestimation of the true impact.

A second limitation is that we did not include so-called third variables in our design. This precludes an unambiguous demonstration of causal relationships (Zapf et al., 1996). However, a strong point in

our design is the inclusion of the stability coefficients and the intercorrelations between the T1 variables. Therefore, occasion factors (e.g., weather and mood) and biographical variables (e.g., age, sex, and education) can be ruled out as a source of spurious dependency. The effects of nonconstant third variables (common factors), however, stay unknown.

The interpretation of the link between equity and burnout is further complicated by the possible synchronous relation whereby personal accomplishment influences equity. Of the three dimensions, personal accomplishment is the most cognitively oriented in that it reflects a dimension of self-evaluation, that is, the evaluation of one's own competence at work (Maslach, 1993). This conclusion that the most likely direction of this relation runs from personal accomplishment at T2 to equity in the relationship with recipients at T2 is a cautionary one. It is true that the stability model was only significantly improved with the synchronous relation of personal accomplishment at T2 toward equity in the relationship with recipients at T2, but the improvement in fit of the curvilinear synchronous model of equity in the relationship toward personal accomplishment approached significance in comparison with both the stability model and the linear model.

In addition, it must be emphasized that not all the results are very strong, with the coefficient of one path only approaching significance in the model of Figure 3. This may be explained by our measure of equity. Subtracting and adding individual items, as was done with the Adams (1965) formula, probably negatively influences the reliability. A lower reliability diminishes the power and therewith the possibility of finding significant relations. This could be an explanation for the low correlations between equity and burnout. In other studies using a multi-item scale, correlations between .22 and .50 were found (Van Dierendonck et al., 1994, VanYperen, 1998). Furthermore, the exact time frame cannot be precisely determined with synchronous relations. This time frame can be anywhere between a few days to almost 1 year. More research is clearly needed on the process of burnout, encompassing more measurement points within a shorter time frame. Nevertheless, a lower chance of finding significant relations makes the significant longitudinal curvilinear relation even more meaningful.

In conclusion, the present study not only lends some credence to the importance of inequity in the burnout process but also directs attention to feeling advantaged in the relationship with recipients. Our results suggest that feeling advantaged might be even

more stressful than feeling deprived. This may have implications for interventions. Burned-out professionals who feel advantaged will probably need a different approach than those who feel deprived. Their perception of inequity can, for example, be introduced in an intervention program by asking professionals to explicitly list inputs and outcomes and then having them assess their (im)balance in the relationship with their recipients. A promising burnout intervention program aimed at the cognitive restoration of equity perceptions is described by Van Dierendonck et al. (1998). This program was designed to reduce feelings of inequity resulting from a discrepancy between goals and expectations. The results showed that burnout and deprived feelings diminished in the experimental group.

Finally, the multidimensional nature of burnout is confirmed because equity has different relations with each burnout dimension: a curvilinear relation with emotional exhaustion, no relation with depersonalization, and a possible synchronous relation with personal accomplishment.

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