



## Inequity Among Human Service Professionals: Measurement and Relation to Burnout

Dirk van Dierendonck and Wilmar B. Schaufeli  
*Department of Social and Organizational Psychology  
Utrecht University*

Bram P. Buunk  
*Department of Psychology  
University of Groningen*

This research investigated the impact on burnout of inequity experienced by human service professionals. Two studies were conducted, among therapists working with inmates in a forensic psychiatric center ( $N = 112$ ) and among staff members of an institute for the direct care of mentally disabled ( $N = 189$ ). Two types of inequity were examined: interpersonal inequity in the relations with recipients and inequity in relation with the organization. The majority of the professionals in both studies felt underbenefited in relation with recipients as well as in relation with their organization. As expected, inequity was curvilinearly related to burnout, especially with the emotional exhaustion dimension. Surprisingly, professionals who felt overbenefited experienced more burnout than colleagues who felt underbenefited. No gender effects were found for the distribution of inequity nor for the relation between inequity and burnout.

Since its "discovery" in the early 1970s, burnout in the human service professions has been the focus of numerous research efforts. Initial research started with clinical descriptions of burned-out professionals and evolved into a more systematic

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Requests for reprints should be sent to Dirk van Dierendonck, Utrecht University, Department of Social and Organizational Psychology, P O Box 80 140, 3508 TC Utrecht, The Netherlands. E-mail: Dierend@FSW RUU NL

empirical approach using standardized measures (Maslach & Schaufeli, 1993). The most widely used instrument that is also used in this study—the Maslach Burnout Inventory (Maslach & Jackson, 1986)—distinguishes between three dimensions of burnout: emotional exhaustion, depersonalization, and reduced personal accomplishment. Early clinical observations suggested that emotionally charged contacts with recipients of care are particularly stressful for professionals (Maslach, 1993). Because working with “difficult” people may put an emotional strain on human services professionals, the issue of demanding recipient contacts has frequently been dealt with in burnout research.

#### CAREGIVER-RECIPIENT RELATIONS

Although various authors have attributed a central role to contacts with recipients as a determinant of burnout (e.g., Cordes & Dougherty, 1993; Jackson, Schwab, & Schuler, 1986; Skorupa & Agresti, 1993), a comprehensive theoretical perspective is lacking. Recently, Buunk and Schaufeli (1993) have argued that equity theory provides a conceptual framework that advances our understanding of the role interactions with recipients play in the development of burnout in the human services.

According to equity theory, people evaluate their relations with others in terms of rewards, costs, investments, and profits (cf. La Gaipa, 1977). They anticipate that what they invest and gain from a relationship is proportional to what the other party in the relationship invests and gains (Adams, 1965; Walster, Walster, & Berscheid, 1978). A basic proposition of equity theory is that if people perceive relationships as inequitable, they feel distressed. More particularly, equity theory predicts a curvilinear relation between equity and distress: perceiving oneself as underbenefited as well as perceiving oneself as overbenefited results in distress, as has been confirmed by studies on intimate relations (e.g., Sprecher, 1992; VanYperen & Buunk, 1990).

For professionals, the relationship with the recipients of care is inequitable by its very nature. This relationship is basically complementary: the professional is supposed to provide care, assistance, help, advice, support, and so on, whereas the recipient is supposed to receive. Nevertheless, many professionals look for some rewards in return for their efforts; for example, they expect the recipients of their care to show gratitude, or to make a real effort to get well. However, these expectations are seldom fulfilled because recipients are in need of help and take the efforts of the professional for granted (cf. Maslach, 1982; Maslach & Jackson, 1982). In addition, recipients may be unmotivated to follow advice or guidelines and therefore improve only slowly, adding to the inequity as experienced by the professionals.

#### PROFESSIONAL-ORGANIZATION RELATIONS

The notion that the employee-organization relation can be understood in terms of an exchange relation goes back to Barnard (1938). Social exchange models assume that individuals pursue equity in the employee-organization relation (Hatfield & Sprecher, 1984). Thus, employees feel that they contribute to the organization with their work (e.g., time, effort) and therefore they expect in return rewards or inducements from the organization (e.g., salary, esteem, promotion, career advancement) that are proportional to their contributions.

Organizational conditions such as pay equity, lack of control over one's work, lack of role clarity, and lack of support by management have been shown to be important determinants of burnout (Schaufeli & Buunk, 1996). It is therefore likely that not only inequity in the professional-recipient relation, but also perceived inequity in the relation between professional and organization may play a role in the development of burnout (Maslach & Jackson, 1984).

Previous research has demonstrated the usefulness of equity theory as a theoretical framework for analyzing the employer-employee relations in organizations (Hatfield & Sprecher, 1984). However, most investigations were laboratory studies, typically examining employees' reaction to inequitable payment (Mowday, 1991). Although these studies generally support the predictions of equity theory (for a review, see Hatfield & Sprecher, 1984), to date there has been little field research (Summers & Hendrix, 1991). Nevertheless, field studies in related areas such as fairness (which encompasses equity) (e.g., Sashkin & Williams, 1990), or inequity in co-worker or supervisor relations (e.g., Buunk, Doosje, Jans, & Hopstaken, 1993) confirm the hypothesized curvilinear relation between equity and distress in organizational settings.

#### INEQUITY AND BURNOUT

The main aim of this study is to investigate the relation between burnout and inequity as experienced by human service professionals. In addition to burnout, the Austin Measure (Austin, 1972), which assesses feelings of contentment and distress, was included. This is traditionally used to measure distress caused by perceptions of inequity in intimate relations. By including this instrument our results can be compared to other studies of intimate relations. Recent studies among nurses (VanYperen, Buunk, & Schaufeli, 1992; Schaufeli & Janczur, 1994) and general practitioners (Van Dierendonck, Schaufeli, & Sixma, 1994) showed that perceptions of inequity are related to all three dimensions of burnout. However, the measures used in these studies allowed for underbenefited inequity only (e.g., “How often do you feel you invest more in the relation with patients than you receive back

in return?"). However, according to equity theory, overbenefited inequity is expected to be related to distress (e.g., burnout) as well. Human service professionals often consider their job a calling and perceive the responsibility for others' well-being as their primary concern (Cherniss, 1980). Therefore, they are likely to be deeply personally involved in their relationships with recipients and, thus, as in intimate relationships, feeling overbenefited is likely to be stressful.

#### Measurement of Equity

The measures of equity used in this study are based upon research into the effects of inequity in intimate relationships. In this area, two measures of equity have been successfully applied: a detailed and a global measure. In the detailed measure, respondents are asked to indicate separately the contributions and outcomes of themselves and of their partner, respectively. Next, the perception of equity is calculated by the researcher, using the so-called Adams formula (Adams, 1965; Harris, 1983). The global measure asks to indicate on a single item the overall perception of equity (the so-called Hatfield Global Measure; Hatfield, Traupmann, Sprecher, Utne, & Hay, 1985). To date the concurrent validity of both equity measures is unclear. Occasional studies that have used global as well as detailed measures report poor correlations (Lujanski & Mikula, 1983; Prins, Buunk & VanYperen, 1993; VanYperen & Buunk, 1990). On the other hand, Prins et al. (1993) concluded that both measures lead to similar results when it comes to confirming the predictions of equity theory. We followed the suggestion of Lujanski and Mikula (1983) to include global as well as detailed measures in order to study equity from different perspectives.

In this research, equity is assessed in direct comparison with the *exchange other* (i.e., the recipient and the organization, respectively). Although this is the usual practice in studies on interpersonal relations, in organizational studies the comparison referents are often other workers in similar jobs (e.g., Lord & Hohenfeld, 1979). However, because of the experimental design employed in most studies the comparison referent was controlled by the researcher. In nonexperimental studies such as the present investigation, the subject's choice of a comparison referent is quite difficult to control. Besides, as was noted by Pritchard (1969), it is unclear which and how many others a person will choose as comparison referents, whether such a choice is stable in time, and how comparable comparison referents are. Because of these fundamental problems, Pritchard proposed an 'internal standard' of comparison instead of a comparison person. By measuring equity in direct exchange with the organization instead of another comparison person the difficulties of determining the comparison referent were circumvented. In addition, this procedure ensured a direct comparison of the results with respect to interpersonal and organizational equity relations.

#### Gender Differences

The current study also explores whether there are gender differences in the perceptions of equity and whether gender differences play a role in the hypothesized relation between inequity and burnout. Women are supposed to have a more empathic attitude, are less outcome or result driven and are, therefore, more likely to allocate rewards equally, whereas men are more likely to allocate rewards equitably (Hatfield & Sprecher, 1984). Accordingly, it could be expected that men feel more upset than women in cases of inequity. Unfortunately, research is inconclusive: some studies support these assumptions, whereas other studies reported the opposite. For instance, in intimate relationships both men (e.g., Buunk & VanYperen, 1989) and women (e.g., Sprecher, 1992) feel distressed when they experience inequity in the relation with their partner. Similar contradictory findings have been found in relation to burnout: among general practitioners only for the men was inequity related to burnout (Van Dierendonck & Sixma, 1994), whereas among nurses only for the women was inequity related to burnout (VanYperen, et al., 1992).

#### Work Settings

The current investigation includes two quite different work settings, which are studied separately. Study 1 includes therapists who are employed at a forensic psychiatric center in The Netherlands. Dutch law offers the possibility to enforce a combination of imprisonment and treatment on criminal offenders who have committed severe crimes (e.g., manslaughter, rape, arson). That is, criminals who are considered to be a severe danger to society and who are not held (fully) accountable for their deeds, are confined in a forensic psychiatric center for treatment (possibly preceded by a prison sentence). The staff of these centers serves both as therapist and as prison guard; i.e., their work balances on the boundary of treatment and guarding. A common psychopathologic feature of these mentally disturbed inmates is their inability to maintain 'normal' social relations, which is the hallmark of the psychopathic personality disorder that is most frequently observed in these centers. Hence, as a rule, interpersonal relations with inmates are very difficult to develop, because they try to use the professional for their own purposes. Yet, such relations are crucial for treatment. As in ordinary prisons, inmates view therapists as agents of repression or oppression (Poole & Regoli, 1981). It is likely that because of this unbalanced interpersonal relation with inmates, prison officers and therapists are particularly vulnerable to burnout (cf. Whitehead, 1989). Inmates will seldom provide the rewards that are necessary for an equitable relationship. Accordingly, underbenefited inequity is likely to occur, whereas only few therapists will perceive themselves as overbenefited.

Study 2 includes staff who work with mentally disabled in small-scale institu-

tions. Their work differs considerably from that of the therapists in Study 1.

Basically, they take care of the daily needs of mentally disabled adults. For example,

they assist with taking a shower and getting dressed, and they are involved in all

kinds of domestic and social activities. Although working with handicapped

residents may be stressful from time to time because of violent outbursts and

behavior problems (Sharrard, 1992), the 'misconduct' of the mentally disabled is

best compared to that of children. Besides, working with the mentally handicapped

is more rewarding; for instance, they are more likely to show gratitude toward staff.

As a consequence, a more balanced interpersonal relationship is likely to develop.

Thus, based on the presumably more rewarding interpersonal relations with recipi-

ents, it is expected that staff in Study 2 feels less underbenefited and experiences

lower levels of burnout compared to the therapists of Study 1.

As far as the employee-organization relation is concerned, no differences in

levels of experienced inequity are hypothesized. Because of the extremely difficult

nature of the therapists' job, the forensic psychiatric center appointed additional

personnel officers for counseling the therapists. Accordingly, the presumably

greater investments of the therapists in their jobs is counteracted by appropriate

support from the organization, so that the exchange relation between employee and

organization is expected to remain in balance.

Accordingly, as far as the relation with respect to the amount of trust and

gratitude that can be expected in their relations with recipients, therefore, if feelings

of inequity are related to burnout in both studies, it would present a strong case for

the use of equity theory as a theoretical framework for understanding the underlying

mechanisms of burnout among human service professionals.

In sum, four hypotheses are tested:

1. Interpersonal equity is curvilinearly related to burnout (and feelings of

commitment/distress).

2. Organizational equity is curvilinearly related to burnout (and feelings of

commitment/distress).

3. Levels of burnout are higher among therapists working with criminal

offenders than among staff working with the mentally disabled.

4. Higher levels of interpersonal inequity exists among therapists working

with criminal offenders than among staff working with mentally disabled.

Furthermore, the convergent validity of two measures (detailed and global) of

inequity is investigated. Finally, the role of gender is explored in the perception of

equity and in the relation between inequity and burnout.

STUDY 1

Method

Participants

The sample consists of 114 therapists who are employed in a Dutch forensic psychiatric center (response rate 67%). Originally, three more therapists were part of the sample. They were removed prior to analysis because of extreme scores on the equity measures. Of the sample, 64% are male ( $n = 73$ ) and 36% are female ( $n = 41$ ). The mean age of the therapists is 37.4 years ( $SD = 7.7$ ) and they are on average employed for 6.9 years ( $SD = 6.6$ ) at the center. The number of the participants in the analysis varies slightly because of occasional missing data.

Measures

**Burnout.** Burnout was measured with a revised version of the Maslach Burnout Inventory, which consists of three subscales: emotional exhaustion, depersonalization, and personal accomplishment (Maslach & Jackson, 1986). Items are scored on a 7-point rating scale, ranging from 0 (*never*) to 6 (*every day*). 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 studies showed that the factorial validity of these two items is insufficient. Because the depersonalization scale has usually the lowest internal consistency (Schaufeli, Enzmann, & Graill, 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." 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 6-item depersonalization scale results that shows an acceptable internal consistency in both studies (see Table 1).

**Contentment/distress.** Contentment/distress was measured with the four-item Austin Measure (Austin, 1972). Respondents were asked to what extent inmates aroused feelings of "contentment," "happiness," "anger," and "guilt" and to what extent the organization arouses such feelings. Answers ranged from *not at all* (1) to *often* (4).

**Perceptions of equity.** Perceptions of equity were measured separately in the relationship with the inmates (interpersonal equity) and with the organization

TABLE 1  
Level of Burnout

	Sample 1 (n = 112)			Sample 2 (n = 189)			Nurses (n = 667)			t-test		
	$\alpha$	M	SD	$\alpha$	M	SD	M	SD	1,2	1,3	2,3	1,3
emotional exhaustion	85	141	64	85	119	66	152	77	2.83**	5.30***	2.83**	1.39
depersonalization	55	71	3.7	61	3.7	3.3	5.9	4.0	8.26***	7.06***	7.54***	2.88**
Original scale	70	7.8	4.2	65	4.3	3.7	28.5	4.38	8.36***	8.20***	8.36***	5.21***
Revised scale	67	26.1	5.2	79	31.6	5.7						

\*\* $p < .01$  \*\*\* $p < .001$ 

(organizational equity), each with two different measures, (a) detailed and (b) global. In advance, examples of investments in and outcomes from the relation were described (e.g., time, patience, effort, appreciation, gratitude). Next, for the first (detailed) measure, questions were asked about the investments in the relationship of both parties, and about their outcomes (4 items). For example: "Overall, how much effort do you feel you put into the relations with inmates?" and "Overall, how much do you feel inmates benefit from their relations 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 formula:  $\text{outcomes self}/\text{inputs self} - \text{outcomes other}/\text{inputs other}$  (Adams, 1965). This formula is mathematically equivalent to the formulas of Walster et al. (1978) and Anderson (1976), since our scales do not allow negative investments or outcomes. The second measure is based upon the Hatfield Global Measure of equity (Hatfield et al., 1985). Respondents were requested to consider their investments in and outcomes from the relation involved and were then asked to endorse the answer that best characterized this relation. Seven possible answers were presented, ranging from -3 to +3. For instance: "The organization invests much more than it gains from me" (+3); "The organization and I invest and gain equally" (0); "I invest much more in my work than I gain from the organization" (-3).

Correlations between both measures are  $r = .73$  ( $p < .01$ ), and  $r = .35$  ( $p < .01$ ) for organizational and interpersonal equity, respectively.

## Results

**Burnout level.** An indication of the level of burnout is obtained by comparing the scores of the therapists with a reference group of 667 Dutch nurses from different health-care settings (Schaufeli & Van Dierendonck, 1993). The original five-item depersonalization scale is used here for reasons of comparability.

Table 1 shows that the therapist's level of emotional exhaustion is comparable to that of the nurses in the reference group. However, feelings of depersonalization and reduced personal accomplishment are observed to be significantly more frequent among therapists than among nurses.

**Burnout, contentment/distress, and equity.** Next, it was examined whether—and in what way—perceptions of equity are related to burnout and feelings of contentment and distress. Because it was expected that equity is curvilinearly related to burnout and contentment/distress (Hypotheses 1 and 2), MANOVAs with polynomial contrasts were carried out. Polynomial contrasts provide a test for both linear and quadratic effects. A curvilinear effect of equity is demonstrated if a significant quadratic effect is produced. However, if only the

linear trend is significant, a linear relation exists between equity and burnout (contentment/distress).

Two MANOVAs were conducted for each type of equity measure (detailed and global) and included the three burnout dimensions and the four elements of the Austin Measure as dependent variables, respectively.

Table 2 shows that in their relations with inmates, therapists only occasionally felt overbenefited (about 5%), whereas the majority (about 84%) felt underbenefited according to both measures. As expected, therapists who—according to the Adams formula—received more back in return from their inmates felt significantly more content and less angry than those who perceived themselves underbenefited. For equity according to the Hatfield Global Measure a similar linear relation was found for happiness. However, neither equity-measure showed a curvilinear relation with the Austin Measure. This means that in the relation with inmates it is not

TABLE 2  
Equity and Contentment/Distress in the Relation With Inmates,  
Sample 1

	Under- benefit	Equity	Overbenefit	F-Value	
				Linear	Quadratic
Adams formula	(n = 92)	(n = 11)	(n = 7)		
Content	2.44	2.82	2.86	5.24*	.22
Happy	2.36	2.55	2.29	.01	.88
Angry	2.87	2.55	2.29	5.43*	.06
Guilty	1.83	1.73	2.29	3.32	3.07
Multivariate effect				3.68*	.05
Emotional exhaustion	14.8	8.5	16.7	.02	9.98**
Depersonalization	8.1	5.9	7.3	.66	1.00
Personal accomplishment	26.1	26.7	26.0	.03	.06
Multivariate effect				.28	3.27*
Hatfield measure	(n = 93)	(n = 11)	(n = 6)		
Content	2.48	2.67	2.40	.02	1.00
Happy	2.30	2.58	3.20	11.53***	1.58
Angry	2.83	2.75	2.40	1.76	.48
Guilty	1.81	2.08	2.00	.89	.36
Multivariate effect				5.21***	1.48
Emotional exhaustion	14.5	12.4	13.8	.19	.42
Depersonalization	8.2	6.4	5.3	3.31	.00
Personal accomplishment	25.7	28.7	28.7	2.82	.25
Multivariate effect				1.93	.39

\* =  $p < .05$  \*\* =  $p < .01$  \*\*\* =  $p < .001$

equity that is associated with more contentment or less distress. Rather, the more therapists received back in return from their inmates, the more content and happy and the less angry they felt.

With respect to burnout, a significant multivariate quadratic effect was found for equity according to the Adams formula. This effect was, at univariate level, the result of emotional exhaustion. Those therapists who perceived their relations with inmates as equitable were least exhausted, whereas those who felt either overbenefited or underbenefited were more emotionally exhausted. It is noteworthy that, contrary to expectations, therapists who perceived themselves as overbenefited felt most exhausted. No significant effect on burnout (linear nor quadratic) was found for equity according to the Hatfield Global Measure.

Accordingly, hypothesis 1 is partly confirmed. Although a significant curvilinear relation between burnout and equity (as measured by the Adams formula) was found, closer inspection revealed that only for one dimension (i.e., emotional exhaustion) was the pattern of the relation as expected.

In the relation with the organization, nobody felt overbenefited (see Table 3). About 70% of the therapists felt underbenefited according to both equity measures. Unfortunately, since nobody perceived themselves overbenefited, a curvilinear effect as predicted in hypothesis 2 could not be tested. Two significant multivariate effects were observed, both pertaining to the Austin measure. More particularly, on the univariate level, therapists who experienced an equitable relation with the organization felt more content (according to the Adams formula and to the Hatfield measure) and more happy (according to the Hatfield measure). No significant relation was found with both negative elements of Austin's measure. Only on the univariate level was a significant effect of equity on burnout observed: therapists who felt underbenefited (according to the Hatfield measure) were significantly more emotionally exhausted than therapists who perceived their relation with the organization as equitable.<sup>1</sup>

**Gender differences.** For both levels of equity (interpersonal and organizational), chi-square tests were executed in order to evaluate gender differences. However, perceptions of equity were not significantly different for men and woman on either level. For equity according to the Adams formula:  $\chi^2_{(2)} = 1.02$  ( $p = .60$ ) and  $\chi^2_{(1)} = .27$  ( $p = .60$ ) for inmates and the organization, respectively. For equity according to the Hatfield measure:  $\chi^2_{(2)} = .21$  ( $p = .90$ ) and  $\chi^2_{(1)} = .52$  ( $p = .47$ ) for inmates and the organization, respectively.

<sup>1</sup>In addition, it was investigated whether perceptions of equity on both levels (interpersonal and organizational) showed a combined effect on burnout and contentment/distress, respectively. However, no significant interaction effects were found for both equity measures.

Next, it was tested whether perceptions of inequity were differently related to burnout for men and women. Because the overbenefited condition was represented by only two female and four male therapists, they were removed prior to the analysis. Using the Adams formula, no significant gender  $\times$  equity interaction effect was found, neither on the multivariate nor on the univariate level: Wilks's  $\Lambda = .97$  ( $p = .36$ ) for the inmates as well as for the organization. Similar nonsignificant results were obtained with the Hatfield Global Measure: Wilks's  $\Lambda = .96$  ( $p = .26$ ) and Wilks's  $\Lambda = .94$  ( $p = .08$ ) for the inmates and the organization, respectively. Hence, it is concluded (a) that male and female therapists do not differ in their perceptions of equity, and (b) that perceptions of equity are not differently related to burnout for men and women.

TABLE 3  
Equity and Contentment/Distress in the Relation With Organization, Sample 1

	Under- benefit	Equity	Overbenefit	F-Value	
				Linear	Quadratic
Adams formula	(n = 90)	(n = 20)			
Content	2.87	3.29		9.47*	
Happy	2.41	2.71		3.69	
Angry	2.20	1.90		3.52	
Guilty	1.50	1.50		1.4	
Multivariate effect				3.14*	
Emotional exhaustion	14.5	12.1		2.60	
Depersonalization	7.6	8.4		4.8	
Personal accomplishment	26.3	26.1		.04	
Multivariate effect				1.45	
Hatfield measure	(n = 78)	(n = 36)			
Content	2.76	3.33		30.23***	
Happy	2.33	2.75		10.86***	
Angry	2.17	2.06		.84	
Guilty	1.45	1.58		1.09	
Multivariate effect				8.43***	
Emotional exhaustion	15.1	12.3		4.81*	
Depersonalization	8.0	7.5		.39	
Personal accomplishment	26.0	26.3		.08	
Multivariate effect				1.59	

\* =  $p < .05$  \*\* =  $p < .01$  \*\*\* =  $p < .001$

## STUDY 2

### Method

#### Sample

The sample consists of 189 professionals who are employed in small-scale institutions for the mentally handicapped (response rate 73%). Of these, 26% ( $n = 49$ ) are male and 74% ( $n = 140$ ) are female. The mean age is 35.1 years ( $SD = 7.0$ ) and they have been employed for an average of 7.1 years ( $SD = 4.6$ ) at the current institution. The working experience does not differ significantly between the two studies ( $p = .43$ ). The age of the professionals in Study 2 is significantly lower than in Study 1 ( $p = .03$ ). As in Study 1, the number of the participants in the analysis varies slightly because of occasional missing data.

#### Measures

The measures were similar to those used in Study 1, except that in the items related to the relation with recipients, "inmates" was replaced by "residents." As in Study 1, the reliability of the burnout scales was sufficient (see Table 1). In this study, the correlations between the two equity measures were  $r = .54$  ( $p < .01$ ), and  $r = .18$  ( $p < .01$ ) for the organization and the residents, respectively. As in Study 1, both equity measures are more strongly related at the organizational level than at the interpersonal level. When correlations are weighted for sample size,  $r = .63$  ( $p < .01$ ), and  $r = .25$  ( $p < .01$ ) for the organization and the recipients, respectively.

#### Results

**Burnout level.** As expected (hypothesis 3), Table 1 shows that staff of Study 2 experienced significantly less emotional exhaustion, less depersonalization, and more personal accomplishment than the therapists of Study 1. In addition, levels of burnout were significantly lower than the nurses' sample. Accordingly, the hypothesis is supported that therapists in a forensic psychiatric setting experience higher levels of burnout than staff working with the mentally handicapped.

**Burnout, contentment/distress and equity.** As in Study 1, the relations of equity with burnout and contentment/distress were examined using MANOVAs with polynomial contrasts. About 6% to 10% felt overbenefited, 61% felt underbenefited, and 31% perceived the relation with residents as equitable in terms of investments and outcomes (see Table 4). This distribution differed significantly from that in Study 1 ( $\chi^2_{(2)} = 18.50$ ;  $p < .001$  and  $\chi^2_{(2)} = 19.26$ ;  $p < .001$  for the Adams formula and the Hatfield Global Measure, respectively). As expected, the profes-

TABLE 4  
Equity and Contentment/Distress in the Relation With Residents, Sample 2

	Under-benefit	Equity	Overbenefit	F-Value	
				Linear	Quadratic
Adams formula	(n = 109)	(n = 54)	(n = 18)		
Content	3.14	3.17	3.22	.35	.05
Happy	3.10	3.13	3.22	.64	.17
Angry	2.11	2.11	2.33	.60	3.36
Guilty	1.78	1.83	1.83	.26	.02
Multivariate effect				.34	1.06
Emotional exhaustion	11.6	11.1	16.6	8.33**	8.14**
Depersonalization	4.1	3.9	7.3	11.7***	10.04**
Personal accomplishment	31.3	33.2	29.2	1.13	8.06**
Multivariate effect				4.33**	4.81**
Hatfield measure	(n = 113)	(n = 61)	(n = 11)		
Content	3.09	3.25	3.09	.05	1.25
Happy	3.06	3.23	3.18	.67	.36
Angry	2.20	2.16	2.27	.15	.57
Guilty	1.80	1.74	2.00	1.09	2.12
Multivariate effect				.47	.87
Emotional exhaustion	12.5	10.5	14.9	.79	5.04*
Depersonalization	4.2	4.1	6.4	3.07	2.99
Personal accomplishment	31.2	32.7	29.7	.57	3.32
Multivariate effect				1.02	2.14

\* = p < .05 \*\* = p < .01 \*\*\* = p < .001

professionals in the present study felt less underbenefited than the therapists in Study 1 as far as interpersonal relations with recipients are concerned. Thus, hypothesis 3 is confirmed.

There were no linear nor curvilinear significant effects of interpersonal equity on the four elements of the Austin measure. That is, the level of contentment or distress is unrelated to the perceived level of equity in the relation with residents. Burnout, on the other hand, was significantly related to equity. The Adams formula produced both linear and quadratic effects in relation to all three dimensions. The Hatfield Global Measure produced similar effects, although only one univariate quadratic effect (emotional exhaustion) reached significance. Surprisingly, professionals who experienced themselves as overbenefited on the interpersonal level reported higher levels of burnout than those who perceived their relations with residents as either equitable or underbenefited. The level of burnout was quite

comparable for the last two groups. Accordingly, hypothesis 1 about the curvilinear effect of interpersonal equity is confirmed, at least as far as burnout is concerned.

Few staff in Study 2 considered themselves overbenefited (about 3%) in the relation with the organization; the vast majority (about 80%) felt underbenefited (see Table 5). The distribution of respondents across categories differs significantly between both studies as far as the Hatfield Global Measure is concerned ( $\chi^2_{(2)} = 6.14; p = .04$ ), whereas the Adams formula just failed to produce significant results ( $\chi^2_{(2)} = 4.47; p = .11$ ). That is, the professionals in Study 2 perceive their relation with the organization as less equitable than the therapists in Study 1.

None of the elements of the Austin measure was significantly related to equity. However, emotional exhaustion was quadratically related to equity according to the Adams formula on the univariate level. As in the relation with residents, the

TABLE 5  
Equity and Contentment/Distress in the Relation With Organization, Sample 2

	Under-benefit	Equity	Over-benefit	F-Value		
				Linear	Quadratic	Under/Equity
Adams formula	(n = 145)	(n = 29)	(n = 7)			
Content	3.12	3.21	3.00	.20	.82	.47
Happy	3.10	3.07	3.42	1.90	1.75	.05
Angry	2.21	2.03	2.14	.41	.87	3.78
Guilty	1.77	1.79	2.00	1.30	.60	.04
Multivariate effect				1.53	1.45	1.25
Emotional exhaustion	12.7	8.3	13.1	.06	5.16*	10.85***
Depersonalization	4.5	3.4	5.6	.27	2.52	2.36
Personal accomplishment	31.4	32.5	30.1	.17	1.24	1.03
Multivariate effect				.27	1.78	3.61
Hatfield measure	(n = 146)	(n = 37)	(n = 2)			
Content	3.16	3.14	3.00	.16	.09	.05
Happy	3.16	3.03	3.50	.54	1.49	1.47
Angry	2.22	2.11	2.00	.53	.02	1.66
Guilty	1.76	1.92	1.50	.31	1.44	2.28
Multivariate effect				.41	.85	1.87
Emotional exhaustion	12.7	9.7	5.5	2.93	.30	6.37*
Depersonalization	4.4	4.0	4.0	.04	.01	.41
Personal accomplishment	31.6	31.5	30.0	.18	.08	.08
Multivariate effect				1.54	.23	2.76

\* = p < .05 \*\* = p < .01 \*\*\* = p < .001



level of emotional exhaustion was higher among staff who felt either over- or underbenefited than among staff who felt equitably treated. For reasons of comparability with Study 1, *F* values are presented of underbenefited versus equity at organizational level. No significant differences on the Austin measure are observed between these two groups. The level of emotional exhaustion is significantly lower among staff who felt equitably treated, compared to the overbenefited group.<sup>2</sup> Accordingly, hypothesis 2 about the curvilinear effect of equity at the organizational level is confirmed as far as burnout (particularly emotional exhaustion) is concerned.

**Gender differences.** For equity on both levels, chi-square tests were executed to evaluate gender differences. As in Study 1, perceptions of equity did not differ between men and women, neither at the interpersonal nor at the organizational level. For equity according to the Adams formula:  $\chi^2_{(2)} = 4.39$  ( $p = .11$ ) and  $\chi^2_{(1)} = 2.80$  ( $p = .25$ ) for inmates and the organization, respectively. For equity according to the Hatfield measure:  $\chi^2_{(2)} = 1.71$  ( $p = .43$ ) and  $\chi^2_{(1)} = .81$  ( $p = .67$ ) for inmates and the organization, respectively. It should be noted that in the relation with the organization, it was all women who felt overbenefited.

The interaction between gender and perceptions of inequity as assessed with the Adams formula was not significant for burnout: Wilks's  $\Lambda = .99$  ( $p = .59$ ) and Wilks's  $\Lambda = .99$  ( $p = .65$ ) for residents and the organization, respectively. Similar nonsignificant results were obtained with Hatfield's Global Measure: Wilks's  $\Lambda = .99$  ( $p = .81$ ) and Wilks's  $\Lambda = .98$  ( $p = .31$ ) for residents and the organization, respectively. As in Study 1, it is concluded that men and women do not differ in their perceptions of equity and that the relation of equity with burnout is similar for men and women.

## DISCUSSION

In this study, four hypotheses were tested in two independent samples that include therapists from a forensic psychiatric center (Study 1) and staff of small-scale institutions working with the mentally handicapped (Study 2), respectively. This section discusses these hypotheses and two additional issues that have been explored: the convergent validity of both equity measures and the role of gender.

<sup>2</sup>As in Study 1, it was investigated whether perceptions of equity at the interpersonal and organizational level showed a combined effect on burnout and contentment/distress, respectively. Again, on neither aspect was a significant interaction effect found.

## Curvilinear Relations (Interpersonal Level)

It was assumed that burnout and feelings of contentment/distress are curvilinearly related to interpersonal equity (hypothesis 1). This hypothesis was confirmed for burnout, at least as far as Adams's equity formula is concerned; with the exception of emotional exhaustion in Study 2, no significant curvilinear effects were found with Hatfield's Global Measure. However, closer inspection revealed that, contrary to expectations, the overbenefited group reported higher burnout levels than the underbenefited group. This is remarkable, since equity theory predicts the opposite (Adams, 1965). The robustness of this finding is enhanced by the fact that it is observed in both samples that are characterized by quite different professional-recipient relations. Furthermore, the result was replicated on the organizational level in Study 2: staff who felt overbenefited reported higher burnout levels than those who felt underbenefited.

A possible explanation for the high level of burnout (especially emotional exhaustion) among those who feel overbenefited is that professionals enter into relationships with recipients with particular expectations. Instead of an equitable relation, as would be expected in intimate relationships, an underbenefited relation is expected from the outset. It can be speculated that, as a result, one's emotional reactions toward feeling under- or overbenefited will differ: Less distress is likely to occur than would be the case in inequitable intimate relations. Professional-recipient relationships are asymmetrical by their very nature, and it was suggested by Austin and Walster that "Expectancy ameliorates distress, even when a person clearly realizes that the expected event is inequitable" (1974, p. 208). Consequently, an overbenefited 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. Following this line of reasoning, one would expect that those professionals who feel overbenefited (or equitably treated) report higher levels of guilt than the underbenefited group. Although the relation between inequity and guilt were not significant, Tables 2 and 4 show a promising trend. For instance, in Study 1, linear as well as curvilinear relation between interpersonal equity and guilt approach significance.

Contrary to what is commonly found in studies on intimate relations (e.g., Traupmann, Petersen, Utne, & Hatfield, 1981), our study reveals that the four elements of the Austin measure (i.e., contentment, happiness, anger, and guilt) are linearly related to inequity, at least in Study 1. This finding is in line with that reported by Sprecher (1992), who found that expectations of being underbenefited were more strongly related to anger, depression, less guilt, happiness, contentment, satisfaction, and love than expectations of being overbenefited. The fact that curvilinear relations were found between interpersonal equity and burnout (especially emotional exhaustion) but not between equity and the four general elements

of the Austin Measure illustrates the specificity of burnout as a stress reaction among human service professionals.

#### Curvilinear Relations (Organizational Level)

It was assumed that burnout and feelings of contentment/distress are curvilinearly related to organizational equity (hypothesis 2). Unfortunately, this hypothesis could not be tested in Study 1, since none of the therapists felt overbenefited in their relation with the center. In Study 2, hypothesis 2 was confirmed only on a univariate level for emotional exhaustion when the Adams formula was used. As in the case of the former hypothesis, no significant curvilinear effects were found for feelings of contentment/distress. When the underbenefited groups were compared with the equitable groups, the former felt — as expected — less content, less happy, and more burned-out.

The finding in both studies that the vast majority felt underbenefited in relation to their organization either suggests that it is genuinely difficult for an organization to produce in their workers a sense of fairness, or it signifies that quite some effort from the part of the management is still required. Since field studies on this issue are lacking (Mowday, 1991), no decision about the plausibility of either interpretation can be made.

#### Levels of Burnout

It was assumed that levels of burnout are higher among therapists working with criminal offenders than among staff working with mentally disabled (hypothesis 3). This hypothesis was clearly supported for all three dimensions of burnout. In addition, the therapists reported significantly more feelings of depersonalization and reduced personal accomplishment than nurses from a large reference sample. This finding illustrates our assumption that both studies are situated at opposite ends of a continuum with respect to the nature of the professional–recipient contact.

#### Perceptions of Equity

Fourth, it was assumed that higher levels of interpersonal inequity exist among therapists working with criminal offenders than among staff working with mentally disabled (hypothesis 4). This hypothesis was clearly confirmed for both equity measures that were used. However, the perception of interpersonal equity differed between the two studies. In the sample of professionals who work with the mentally disabled, the group that perceived their relations with recipients as equitable was

three times as large as among those who work with forensic psychiatric inmates. In addition, 10% of the professionals of Study 2 perceived their relation with recipients as overbenefited, whereas in Study 1 only 6% of the therapists felt overbenefited. These findings confirm that the nature of professional–recipient relations differs considerably between the two studies. Working with the mentally disabled seems to be more rewarding than working with inmates. As was already noted by Jackson et al. (1986), not every professional–recipient contact is one that, by definition, will result in burnout. Nevertheless, it is all the more remarkable that, despite these differences, similar curvilinear effects on burnout were observed in both samples. Social exchange processes seem to be similar and are more or less independent of the specific setting in which the interpersonal relation is embedded.

On the organizational level, the majority of the professionals felt underbenefited in both studies. In Study 2, only a small group felt overbenefited (3%), whereas in Study 1 this feeling was totally absent. It seems that professionals almost never feel that their organization is providing enough incentives. This echoes the findings of Maslach and Jackson (1984) who, when they asked police officers and teachers to generate a list of distressing aspects of their work, ended up with a list that included organizational conditions exclusively.

#### Validity of the Equity Measures

The correlations between the two measures differ considerably depending on the relation measured. For perceptions of equity at the organizational level, the correlations were high, whereas at the interpersonal level, only low correlations were found. This result suggests that as far as equity measured at organizational level is concerned, the convergent validity is good. However, at interpersonal levels, our findings are similar to those reported by Prins et al. (1993). The analyses into the relation between inequity and burnout showed that the Adams formula provided results that better correspond to equity theory than the Hatfield measure. Prins et al. (1993), who used identical measures to judge (in)equity among married couples, found similar results for both measures. They concluded that people are cognitively capable of using an equity formula themselves, as is done with the Hatfield measure. Our results suggest that this ability is influenced by the type of relation that is being judged. Possibly, the level of abstraction necessary for judging a relation using the Hatfield formula is more easily reached in intimate relations because both partners have comparable input and outcomes. For other relations it might be necessary to differentiate outcomes and input and calculate the degree of equity afterwards, as is done with the Adams formula. It should be noticed, however, that this does not exclude the Hatfield formula as a measure of equity because, in the relation with residents (Study 2), there is a significant quadratic relation of equity as assessed with the Hatfield measure with emotional exhaustion.

### Gender Differences

The analyses of gender differences is important because unequal gender distributions might be responsible for differential outcomes in both studies. In Study 2, where the majority of the professionals is female, the relation with recipients is perceived as more equitable, and there was a significant curvilinear relation with depersonalization and personal accomplishment. As it turned out, the results showed no significant gender differences in the distribution of equity (underbenefited, equitable, and overbenefited) in either study. In addition, the curvilinear effects of inequity upon burnout could not be accounted for by differences in gender distribution.

### Limitations

This research obviously has certain limitations. First, since this is a cross-sectional study, cause-effect explanations are tentative. One could speculate that burnout precedes perceptions of equity instead of vice versa. Van Dierendonck et al. (1994) reported such a relation with a model that encompassed a negative feedback loop whereby harassment by patients was related to inequity, which, in turn, was related to burnout. The negative attitudinal dimension of burnout (i.e., depersonalization and reduced personal accomplishment) was again related to harassment, thereby closing the feedback loop. Maslach (1982) suggests that in an effort to reduce emotional arousal, professionals might use psychological withdrawal by diminishing their performance, avoiding tasks, and hiding behind rules. When, as a result, the quality of care deteriorates, professionals might blame themselves. This could lead to perceptions of getting more than one deserves. The low level of personal accomplishment and the high level of depersonalization among overbenefited professionals in Study 2 could be explained along this line of reasoning. Second, the small size of the samples reduces the possibility of finding significant effects in relation to feeling overbenefited. However, despite this poor statistical power, we were able to show significant effects, which strengthens the validity of our findings. Future studies into the relation between inequity and burnout should, therefore, be longitudinal and include larger samples.

### Conclusions

What kind of general conclusions can be drawn from these results? First, the results of this study indicate that equity theory may serve as a relevant theoretical framework for enhancing our understanding of the etiology of burnout among human service professionals (Buunk & Schaufeli, 1993). The majority of profes-

sionals perceive themselves in their relation with recipients and the organization as underbenefited. Moreover in both samples, (in)equity in the relation with recipients seems to be curvilinearly related to burnout, especially with emotional exhaustion. Second, the perception of (in)equity is more adequately assessed by using the specific Adams formula instead of the general Hatfield measure. Third, perceptions of being underbenefited are related to distress, but feeling overbenefited is related to distress somewhat stronger. Finally, professionals might feel underbenefited, without necessarily experiencing more negative emotions or burnout, than colleagues who feel equitably treated.

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