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Sources and Determinants of Job Stress among Employees Working in Therapeutic Toddler Classes in Dutch Rehabilitation Centres

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ABSTRACT *The first purpose of this study was to determine to what degree infant teachers and therapists in Dutch therapeutic toddler classes perceive job stress. Another purpose was to identify the sources of job stress. Further, this study examined whether infant teachers, physical, occupational and speech therapists have to cope with different degrees of job stress and, finally, the influence of staff characteristics on the degree of job stress was investigated. Sixty-two infant teachers and 88 therapists working in therapeutic toddler classes completed a questionnaire for job stress. Most job stress was perceived to be a result of lack of non-contact time. Nine sources of job stress were identified. The four disciplines responded differently to the sources of stress. Regression analysis showed profession to be the strongest predictor of job stress.*

Introduction

Since the 1970s early intervention with children with a motor disability in the age range birth to 4 years has become an important activity at centres for rehabilitation medicine in The Netherlands. In the beginning, intervention programs were primarily centre-based with parent training occurring in an outpatient setting. Evaluation showed, however, that many parents perceived their therapy role as stressful (De Moor, 1987). As in other studies about parent involvement in early intervention activities (Held, Heisch, & Koch, 1983; Kogan, Tyler, & Turner, 1974; Mayo, 1981; Spiker, 1982) the perceived stress was strongly related to variables like the severity of the motor disability, the age of the child, the complexity of the parent training program, and the extent to which the training was successful (De Moor, 1987). The concerns about

parent training have resulted in a second, more child-focused, treatment model: the therapeutic toddler class (De Moor, 1987). The therapeutic toddler class offers a classroom-based rehabilitation program for toddlers with a motor disability (ages 1 to 4). The program contains developmental activities in a group environment as well as individual therapy (physical, occupational, and speech therapy) and children attend the program several days per week. In 1994 a survey of all rehabilitation centres containing toddler classes in The Netherlands showed that there were 44 toddler classes with a population of approximately 400 children (Hendriks, De Moor, Oud, & Busink, 1997). At the present time the therapeutic toddler class is a regular service in all Dutch rehabilitation centres.

Over the past two decades job stress has been of great interest to researchers and those who work in the areas of health care and education (Maslach & Schaufeli, 1993). Job stress is defined in many ways. The most frequently quoted definition of [job] stress comes from Kyriacou (1987): “[Job] stress [is] the experience by a person of unpleasant emotions, such as tension, frustration, anxiety, anger and depression, resulting from aspects of his work” (p. 146). Kyriacou (1987), Kingsley and Cook-Hatala (1988), and Hatton and Emerson (1993) distinguish two types of job stress, client-related job stress and work-related job stress. Although client-related characteristics are surely important for establishing job stress (e.g., client behaviour), findings from studies in the field of intellectual impairment indicate that aspects of working conditions are more frequently mentioned by care staff as sources of job stress (Browner et al., 1987; Grant & Moores, 1977). Furthermore, the main source of client-related job stress in these studies, violent behaviour towards staff members, is not usually relevant in the case of very young children. For these reasons the present paper focuses mainly on work-related job stress.

Job stress has been the focus of many studies in special education (see e.g., Jenkins & Calhoun, 1991; Kyriacou, 1987; Kelly & Berthelsen, 1995; Salo, 1995; Smith & Bourke, 1992; Strassmeier, 1992; Van Poppel & Kamphuis, 1996), in childcare (see e.g., Boyd & Kay Pasley, 1989; Kingsley & Cook-Hatala, 1988), and in services for those with intellectual impairment (see e.g., Buckhalt, Bearden, & Marchetti, 1990; Hatton & Emerson, 1993). The main sources of stress identified in these studies are lack of time, low salary, children’s needs and behaviour, work overload, role conflict and role ambiguity, interpersonal relationships, lack of recognition, and lack of opportunities for personal advancement. No research concerning job stress of staff working with children with motor disabilities has been reported, however. The conditions under which infant teachers and therapists in Dutch therapeutic toddler classes have to perform their jobs at this point in time are difficult and could lead to job stress. These conditions include (a) mergers of rehabilitation centres (between 1987 and 1996 the number of rehabilitation centres for children decreased from 26 to 17 and furthermore all free-standing children’s centres disappeared); (b) organisational changes (all centres took restructuring measures, mainly in terms of clustering teams around the child with the disability); (c) cutbacks in Medicare funding, changeover to output-pricing and efficiency measures (Vereniging van Revalidatie

Instellingen in Nederland, 1994); (d) little turnover of personnel and limited career prospects; (e) lack of non-contact time (in 1997 Hendriks et al. reported that for 72% of 116 employees in therapeutic toddler classes the ratio of contact-non-contact time in terms of percentages was 80:20 or worse); and (f) physical arrangements (e.g., 46% of the infant teachers and 20% of the directors judged classrooms to be too small and of poor quality; Hendriks et al., 1997). Because the working conditions in therapeutic toddler classes differ from those in education, child care and intellectual disability services, the types of stress may be expected to differ also.

The purpose of the present study was, first, to determine whether there is job stress among infant teachers and therapists in therapeutic toddler classes and, second, to identify its sources. In addition, two further questions were examined. Unlike, for instance, Dutch special education teachers, the infant teachers of the Dutch therapeutic toddler classes have no official job description indicating their role, function, and responsibilities, and there are no arrangements concerning the amount of time for inservice training and preparation activities. In 1998 the time allocated in special education for both aspects is respectively 10% and 35% of the entire job (Ministerie van Onderwijs, Cultuur en Wetenschappen, 1998). For infant teachers there are also no preservice education and training programs where they can obtain a diploma (De Moor, 1987). Compared with the infant teachers the working conditions of the therapists are quite different. Therapists have a detailed job description, more opportunities for postgraduate training, and higher job status. Another difference is that in general the therapists are working with individual children and only for a short time on each occasion. The infant teachers, however, are working with groups of children during the entire day. Because of these differences between therapists and infant teachers a third question arises: Do infant teachers and therapists have to cope with different degrees of stress, and do they experience stress related to different aspects of their work?

Many studies about job stress (Crane & Iwanicki, 1986; Kyriacou, 1987; Kyriacou & Sutcliffe, 1978; Laughlin, 1984; Malik, Mueller, & Meinke, 1991; Salo, 1995) have investigated the impact of particular staff characteristics, such as gender, age and length of working experience, on the perception of job stress. McClelland (1986) suggested that the length of working experience, salary, and the number of hours may influence the perception of job stress, however, Strassmeier's (1992) research among teachers of children with an intellectual impairment found no association between the variables gender, age and amount of working experience, and the perception of job stress. The present study investigated the possible contribution of several staff characteristics to the perceived job stress of staff working in therapeutic toddler classes.

In summary, the research questions in this study are: (a) To what degree do infant teachers and therapists in therapeutic toddler classes perceive job stress? (b) Which sources of job stress can be identified? (c) Do infant teachers, physical, occupational and speech therapists have to cope with different degrees of job stress from different sources? and (d) Is job stress related to staff characteristics other than role?

Method

Participants and Setting

This study, part of a larger research project examining the quality of care in therapeutic toddler classes reported by Hendriks et al. (1997), included physical therapists, occupational therapists, speech therapists and infant teachers working in therapeutic toddler groups in 16 rehabilitation centres in The Netherlands. Only one of the total number of 17 rehabilitation centres containing toddler classes refused to be included in the study. All infant teachers (80) in the 16 centres were invited to participate in the study. Two physical therapists, two occupational therapists, and two speech therapists per facility were randomly selected and invited to participate. The questionnaire was completed by 62 infant teachers and 88 therapists (31 physical, 29 occupational, and 28 speech therapists). Completed questionnaires were returned by 150 (85%) of the possible 176 participants.

Instruments

In order to measure the degree of job stress among staff members in therapeutic toddler classes, a questionnaire was developed which asked infant teachers, physical, occupational and speech therapists to indicate the extent to which they perceived job stress on 49 items.

Item selection was based on a review of the literature, discussions with early interventionists, and a questionnaire for determining job stress among teachers of elementary and high schools in The Netherlands (Van Poppel & Kamphuis, 1992). Twenty-eight items were taken from the Van Poppel and Kamphuis questionnaire and were adjusted to the working conditions of infant teachers and therapists in the therapeutic toddler group (e.g., the item about the work atmosphere in the toddler group was originally about the work atmosphere in the school). Two items were taken literally from Van Poppel and Kamphuis. The remainder of the items (19) concerned specific problems of infant teachers and therapists in a therapeutic toddler group and was based on a review of the literature and discussions with early interventionists.

A priori we grouped the items into 11 categories. These categories were: lack of time, team collaboration, management, opportunities for advancement, team climate, supervision by management, characteristics of the toddler class, physical arrangements and physical resources, organisational conditions, issues with parents, and job conditions.

The questionnaire asked the participants to circle one of five answer codes corresponding to the extent to which they felt burdened by each item. Code 1 represented "I don't feel burdened by this item," 2 "I hardly feel burdened," 3 "I feel burdened," 4 "I feel heavily burdened," and 5 "I feel very heavily burdened." One item, for example, reads, "To what extent do you feel burdened by a too small toddler classroom?" In order to determine the reliability of the questionnaire, we examined the degree of internal consistency. Internal consistency reliability (Cron-

bach's alpha) for all participants was .89, for therapists .88, and for infant teachers .91.

In addition to completing this questionnaire, participants completed (anonymously) a form indicating the following staff characteristics: gender, age, profession, level of education, length of working experience, tenured or not, number of hours working, salary scale, and whether they had received extra inservice training.

Procedure

Each rehabilitation centre was asked to assign a contact person. This contact person was responsible for the distribution of the questionnaires and their completion and return. A cover letter was attached to the questionnaire explaining the nature and purpose of the study. Participants were assured their answers would be processed anonymously.

Data Analysis

Degree of job stress. We calculated the mean ratings, standard deviations, and the percentage of participants feeling burdened, heavily burdened, or very heavily burdened (ratings 3 through 5) of the total participants, the therapists, and the infant teachers in order to examine whether they perceived job stress on any of the aspects of their work included as a questionnaire item. Participants were considered to perceive an aspect as stressful when the mean rating of the participants was higher than 3.00 (i.e., on average participants felt burdened, heavily burdened or very heavily burdened by an item), or when more than 50% of the participants responded they felt burdened, heavily burdened or very heavily burdened on an item.

Sources of job stress. Through a principal components factor analysis with varimax rotation the different sources of job stress, as perceived by the total group of participants, were determined.

Differences in job stress among disciplines. One-way analyses of variance (ANOVA) were used to determine the extent to which physical therapists, occupational therapists, speech therapists, and infant teachers differed in perceiving job stress from the various sources of job stress and on the total score of all 49 items of the questionnaire.

Determinants of job stress. The amount of explained variance in the degree of job stress was examined, through multiple regression analysis, as a function of staff characteristics. These characteristics were gender, age (in whole years), profession (infant teacher or therapist), level of education (Intermediate Vocational Education, Higher Professional Education or University), length of working experience (in whole years), tenured or not, number of working hours, salary scale (six official Dutch scales), and receiving extra inservice training (yes or no). Due to missing values on staff characteristics the regression analyses took place for 115 out of the

TABLE I. Mean ratings, standard deviations, and percentage of participants feeling burdened (ratings 3 through 5) per item for all participants, therapists, and infant teachers. Only items on which 50% or more of participants perceived job stress are presented

Item	<i>M</i> ^a	<i>SD</i>	% 3, 4 or 5
<i>All participants (n = 150)</i>			
Lack of time for studying new material	3.39	1.17	78.0
Lack of preparation time for working with children	3.09	0.96	79.3
Many organisational changes	2.87	1.28	61.3
Extent to which administration takes up time	2.72	1.11	57.3
Being interrupted during working with children	2.66	1.12	58.0
Too few possibilities for extra training and continuing education	2.63	1.27	54.0
<i>Therapists (n = 88)</i>			
Lack of time for studying new material	3.57	1.10	83.0
Lack of preparation time for working with children	3.22	0.90	85.2
The extent administration takes up the total job	2.91	1.13	65.9
Many organisational changes	2.87	1.25	64.8
The extent to which the job takes up free time	2.57	1.13	53.4
<i>Infant teachers (n = 62)</i>			
Lack of time for studying new material	3.14	1.23	71.0
Being interrupted during working with children	3.08	1.17	71.0
Too few possibilities for extra training and continuing education	3.02	1.25	67.6
Lack of preparation time for working with children	2.92	1.01	71.0
Many organisational changes	2.85	1.33	56.5
Limited opportunities for personal advancement	2.58	1.36	51.6

^a 1 = not burdened, 2 = hardly burdened, 3 = burdened, 4 = heavily burdened, 5 = very heavily burdened

original 150 persons. We performed the regression analysis in two steps. First all staff characteristics were entered. In the second analysis only significant regressors from the first analysis were entered.

Results

Degree of Job Stress

In order to know whether the participants perceived high levels of job stress we calculated the mean ratings, standard deviations and the percentage of participants feeling burdened, heavily burdened or very heavily burdened (ratings 3 through 5). Firstly, we calculated the items on which the total group of participants perceived job stress, using the method described earlier. These are presented in Table I which also presents the items on which the therapists and the infant teachers separately perceived job stress according to the previously defined criteria.

Table I shows that for all participants the mean ratings of two items were higher than 3.00. These items are “lack of time for studying new material” and “lack of

preparation time for working with children.” Furthermore, a high percentage of the participants felt burdened by “the many organisational changes” (61%).

Therapists felt burdened to very heavily burdened on the same aforementioned two items about lack of time. Furthermore, they reported feeling burdened by “the extent to which administrative activities take up time” (65.9%).

Results for infant teachers show they perceived the most job stress to be the result of “lack of time for studying new materials.” Also “being interrupted during working with children” and “too few possibilities for extra training and continuing education” were important sources of job stress for the infant teachers.

In summary, the most job stress was perceived to be a result of lack of time. Therapists also felt burdened by the amount of time administrative activities take up. Being interrupted during working with children and having too few possibilities for extra training and continuing education were major sources of job stress for the infant teachers.

Sources of Job Stress

In order to examine what sources of job stress are measured by the questionnaire, a principal components factor analysis with varimax rotation was performed. On the basis of the scree plot, the loadings of the items ($> .40$), and the interpretability of the factors we found the questionnaire to be made up of nine factors. Four items were removed because they had a loading lower than $.40$. Two other items did have loadings higher than $.40$ but they were removed as they did not load onto any of the factors. Table II lists the nine factors (and their labels) and the items which contribute to each factor.

In order to get a more complete view of the perception of job stress we examined the mean ratings and standard deviations of the nine sources of job stress for all participants. Table III shows that, on average, participants felt mostly burdened by “time pressure” (source 5). On the other eight sources of job stress the mean level of job stress perception is low.

Differences in Job Stress Among Disciplines

One-way analyses of variance (ANOVA) were calculated to determine whether there were differences among the disciplines in their perception of the sources of stress they experienced in their work. Differences were calculated between the physical therapists, occupational therapists, speech therapists, and infant teachers. The Tukey Multiple Range Test was used to determine which disciplines differed significantly from each other.

Differences in perception of job stress emerged among disciplines for four of the nine sources of job stress. With respect to perceived job stress from source 1 “management and organisation,” speech therapists reported to be less burdened than physical therapists ($F = 2.98, p = .03$). All therapists perceived less job stress from source 3 “characteristics of the toddler class” than did infant teachers

TABLE II. List of the nine sources of job stress measured and the items which contribute to each factor

Source of job stress and items

Source 1. Management and organisation

Director is too far away from daily practice
 Poor functioning of the director
 Many organisational changes
 Lack of support by the director
 Little participation in management of the toddler group ward
 Difference of opinion with team members about rehabilitation issues
 Poor contact with the director
 Indistinct qualifications

Source 2. Recognition and physical resources

Poor relationships between colleagues of own profession
 Lack of special adaptations in toys and equipment
 Lack of toys and equipment
 Little recognition by colleagues of own profession

Source 3. Characteristics of the toddler class

Too many children in the toddler class
 Behaviour problems of the children
 Being interrupted during training activities
 Too heavy caregiving demands of the children
 Too large, variation in group composition (physical, cognitive and social)

Source 4. Information exchange and personal advancement

Insufficient job guidance
 Poor collaboration with colleagues (within own discipline)
 Limited contribution to team decisions concerning the child
 Insufficient informing of the parents
 Too little challenge in the job
 Too few possibilities for extra training and continuing education

Source 5. Time pressure

Lack of preparation time for working with children
 Lack of time for studying new material (e.g., toys, equipment, and curricula)
 The extent to which the job takes up free time
 The extent to which administrative activities take up time

Source 6. Team climate

Team members do not stand by agreements or mutual decisions
 Poor interpersonal relationships within toddler class team
 Poor collaboration within the toddler class team
 Little recognition by team members
 Insufficient functioning of team members

Source 7. Physical arrangements

Too small size of the classroom
 Too small rooms for therapy
 Bad setting of the department of the toddler classes in the centre

TABLE II. *Continued*

- Working with too many adults in one classroom
- Poor quality of the classroom (e.g., light, hygiene, maintenance, temperature, humidity)
- Poor quality of the therapy rooms (e.g., light, hygiene, maintenance, temperature, humidity)

Source 8. *Opportunities for consultation*

- Too few opportunities for mutual consultation within the team
- Too few team meetings

Source 9. *Feelings of inadequacy*

- Being not adequately trained for fulfilling this job
- Work atmosphere in the department of the toddler classes
- Criticism from parents concerning treatment and guidance

($F = 10.85, p < .001$). Speech therapists reported to feel less burdened from source 4 “information exchange and personal advancement” than infant teachers ($F = 3.10, p = .03$). Infant teachers perceived less job stress as a result of “time pressure” (source 5) than occupational therapists ($F = 4.53, p = .01$). See Table III for mean for each group.

TABLE III. Mean ratings (and standard deviations) of the nine sources of job stress for all participants, physical therapists, occupational therapists, speech therapists, and infant teachers

Sources of job stress	All participants ^a ($n = 150$)	Physical therapists ($n = 31$)	Occupational therapists ($n = 29$)	Speech therapists ($n = 28$)	Infant teachers ($n = 62$)
Organisation and directing	2.11 (.78)	2.42 (.89)	2.15 (.86)	1.83 (.64)	2.07 (.70)
Recognition and physical resources	1.56 (.66)	1.48 (.53)	1.53 (.79)	1.42 (.57)	1.69 (.68)
Characteristics of the toddler class	2.07 (.65)	1.84 (.49)	1.84 (.54)	1.81 (.45)	2.40 (.72)
Information exchange and personal advancement	1.84 (.59)	1.81 (.61)	1.78 (.46)	1.61 (.51)	1.99 (.63)
Time pressure	2.89 (.84)	2.77 (.85)	3.28 (.86)	3.11 (.65)	2.67 (.84)
Team climate	1.74 (.65)	1.78 (.56)	1.75 (.69)	1.68 (.64)	1.74 (.69)
Physical arrangements	2.06 (.77)	2.07 (.72)	2.06 (.85)	1.93 (.57)	2.11 (.85)
Opportunities for consultation	2.04 (.96)	2.08 (.92)	1.97 (1.04)	2.16 (100)	2.01 (.94)
Feelings of inadequacy	1.64 (.58)	1.55 (.46)	1.76 (.74)	1.55 (.48)	1.68 (.58)

^a 1 = not burdened, 2 = hardly burdened, 3 = burdened, 4 = heavily burdened, 5 = very heavily burdened

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TABLE IV. Multiple regression analysis of perceived job stress using selected staff characteristics with explained variance (R^2) and regression coefficient or standardised regression coefficient ($n = 115$)

Dependent variable	R^2	Independent variable	Standardised coefficient	Regression coefficient	p
Job stress	.052	age	.165		.043
		profession		-.123	.082
Management and organisation	.051	age	.248		.011
		experience	-.216		.026
Characteristics of the toddler class	.182	profession		-.566	.000
Information exchange and personal advancement	.046	profession		-.255	.008
Time pressure	.048	profession		.372	.007
Team climate	.000	profession		-.006	.959
Feelings of inadequacy	.073	age	.280		.001
		tenured		-.193	.291

Determinants of Job Stress

The regression analysis was performed in two steps. The first regression analysis identified the determinants (staff characteristics) and the extent to which each determinant accounted for variance in perceived job stress from the nine sources of job stress as well as on the total score of all 49 items of the questionnaire. In the second analysis only significant regressors were introduced into the regression analysis.

Table IV shows the results of the second analysis. For the continuous variables, age and length of working experience, a standardised regression coefficient was used. This coefficient indicates by how many standard deviations the dependent variable (source of stress) increases when the independent variable (staff characteristic) increases by one standard deviation. For the dichotomous variables, profession and being tenured or not, a regression coefficient which indicates the difference in means between two groups was used. The staff characteristics of age (coefficient = .165, $p < .05$) and profession (coefficient = -.123, $p < .10$) significantly influenced the total score of all 49 items. The proportion of variance explained by these two variables was 5.2%. Older persons perceived less job stress than did younger persons and therapists perceived less job stress than infant teachers using the total score. Age (coefficient = .248, $p < .05$) and the number of years of working experience (coefficient = -.216, $p < .05$) influenced source 1 "organisation and directing." Older persons perceived less job stress on this aspect. Persons with more working experience, however, perceived more job stress on "organisation and directing." The proportion of explained variance of these variables was 5.1%. The proportion of explained variance of the mean rating of job stress on source 3 (characteristics of the

toddler class) and 4 (information exchange and personal advancement) was 18.2% and 4.6% respectively. They can both be regressed to the variable profession (coefficient = $-.566$, $p < .001$ and coefficient = $-.255$, $p < .01$ respectively). Therapists perceived less job stress resulting from both sources than did infant teachers. In contrast, infant teachers felt less burdened from source 5 “time pressure” than did therapists. The proportion of explained variance was 4.8% (coefficient = $.372$, $p < .05$). “Team climate” (source 6) was not influenced by the predictor profession. The characteristic of age (coefficient = $.280$, $p < .01$) significantly influenced source 9 “feelings of inadequacy.” The proportion of variance explained by this variable in combination with the characteristic being tenured or not is 7.3%. Older persons perceived less job stress than did younger persons on this variable.

Conclusion and Discussion

The findings of the present study do not confirm the expectation that the working conditions of therapists and infant teachers in the Dutch therapeutic toddler classes would lead to the perception of high levels of job stress. Table II shows that participants felt burdened by only one source of job stress, namely time pressure. These findings differ from those of studies of employees working with older people in facilities and in educational services for those with intellectual impairment in which employees mention high rates of job stress or even burnout on more than one domain (Buckhalt et al., 1990; Edwards & Mittenberger, 1991; Salo, 1995). The finding that job stress in this study is limited to one domain can be related to the characteristics of the group with whom the respondents work and the context in which the job takes place (Capel, 1991; Kelly & Berthelsen, 1995; Smith & Bourke, 1992). The client group here consists of young children who generally have no severe behaviour problems or great caregiving demands (Hendriks et al., 1997). The context in which teaching and therapy takes place is one of small classes with sufficient physical resources (Hendriks et al., 1997).

Although in this study participants, as a group, perceived low levels of job stress (mean of total score of all 49 items for all participants = 2.01), there were individual differences. Further analyses among individual participants indicated that of all therapists and infant teachers, four infant teachers reported a lot of stress (mean of total score of all 49 items higher than 3). However, the patterns of job stress perception for each of them were quite different. Their perception of job stress was personal, as Kelly and Berthelsen (1995) found for stress amongst preschool teachers. One infant teacher felt mainly burdened by aspects of employment related to organisation and directing (source 1). Another’s response indicated that stresses related to recognition and physical resources (source 2) were the most worrying, while another reported finding the characteristics of the toddler class (source 3) as the most stressful. The fourth was most burdened by aspects of the job related to characteristics of the toddler class and team climate (source 6).

Although, in general, the participants considered their job not to be very stressful, there were clear specific stressors, namely “time pressure” and the many organisational changes. Employees of the therapeutic toddler classes indicated strongly that

they perceived job stress to be related to lack of non-contact time. Because for most employees the percentage of non-contact time is no more than 20% (Hendriks et al., 1997), there is insufficient time for preparing educational and therapeutic activities with the children, for studying new material, and for carrying out administrative activities. This affects adversely the quality of the rehabilitation programs provided in the toddler classes, especially in the long term. A solution for the problem of job stress related to time pressure is the development of quality standards for a more balanced distribution of contact and non-contact time. The necessity of such a measure is not without obligation because in the near future centres for rehabilitation medicine will be obliged to design a quality policy following the Quality of Care Institution Act in The Netherlands (Ministerie van Volksgezondheid, Welzijn en Sport, 1995).

Employees of the therapeutic toddler classes also felt burdened by the many organisational changes. This finding confirmed our presumption that the many mergers of rehabilitation centres, the frequent changes in the internal organisational structure, and the introduction of efficiency measures lead to job stress. Because organisational changes are often inevitable, allowing employees to participate in the decision-making concerning these reorganisations could prevent job stress. Previous research showed employees who felt they had contributed to decisions in the centres were less likely to feel dissatisfied on the job (Hatton & Emerson, 1993; Maslach & Pines, 1977; McClelland, 1986; Pope & Stremmel, 1992; Whitebook, Howes, Darrah, & Friedman, 1981). Because the Dutch health care situation is changing dramatically at the present time as a result of new cutbacks in government funding, we expect that in rehabilitation medicine, perceptions of job stress will increase in the near future and extend over more domains. Van der Ploeg and Scholte (1997) indicated that job satisfaction among childcare workers is not a constant factor. Since 1976 it has decreased gradually. They suggested that this change was due to the increasing professionalisation of childcare workers who, as a consequence, developed a more critical attitude towards their working conditions. We expect that the employees of the therapeutic toddler classes will also develop a more critical attitude in response to the current cutbacks and that as a result their perceptions of job stress will increase.

Results showed that participants did not feel burdened by eight out of nine possible sources of job stress identified in this study. For example, both infant teachers and therapists felt hardly or not at all burdened by the team climate. This finding is consistent with recent Dutch research that found that childcare staff in semi-residential facilities were very satisfied with respect to the team collaboration (Van der Ploeg & Scholte, 1997). It differs, however, from the results of Kelly and Berthelsen's (1995) study in which preschool teachers mentioned stress arising from their relationships with colleagues. A possible explanation for this inconsistency is the fact that in The Netherlands rehabilitation medicine and child care is based on working in teams, contrary to educational settings in which teachers work more individually without a natural peer support system (Billingsley, 1993).

The degree of job stress among employees of the therapeutic toddler classes varies significantly with respect to age, length of working experience, and whether the

individual is tenured or not. A possible explanation for the finding of lower levels of job stress among older participants is that these are the employees who have “stuck it out” over the years and have now mellowed or hardened to the point that problems do not bother them anymore. An alternative explanation is that older employees “have their act together” due to their long-term commitment to rehabilitation medicine (Crane & Iwanicki, 1986). The strongest predictor of job stress, however, was professional role. Overall, infant teachers perceived more job stress than did therapists. In trying to understand this result, we have to look at the differences between infant teachers and therapists. For instance, infant teachers receive a salary which is lower than that of therapists. Previous research studies in child care settings, facilities for those with intellectual impairment, and educational settings (Buckhalt et al., 1990; McClelland, 1986; Strassmeier, 1992) have identified low salary as an important source of job stress and dissatisfaction. Furthermore, many infant teachers have a lower job status (e.g., their terms of employment are worse and they have no detailed role perception), contrary to therapists, who are more professionalised by training (Hendriks et al., 1997).

Examining the nine sources of job stress separately, infant teachers perceived more stress as a result of “characteristics of the toddler class” and “information exchange and personal advancement” than did therapists. An explanation for the difference in stress concerning the toddler class is probably that infant teachers are working with the children during the entire day, most of the time in groups in which individual child problems tend to accumulate. Therapists, however, are working with individual children during short periods without group dynamic processes. The difference in stress between infant teachers and therapists concerning information exchange and personal advancement is mainly a result of the lack of opportunities for extra training and continuing education for infant teachers. Results of a recent study in a Dutch rehabilitation centre (De Moor, Didden, Nuis, & Van de Ven, 1999) showed that infant teachers attended an average of 0.7 inservice or outservice training courses per employee during their entire employment, in contrast with therapists who attended an average of 4.3 courses. Although the importance of early developmental stimulation of children with disabilities is recognised, training of early educational personnel is not seen as a key mechanism for updating knowledge and skill levels, which, in turn, relates to better practice, improved morale, and lower program staff turnover (Ferguson & Brynensen, 1991). Our recommendation to rehabilitation centres is to create more opportunities for extra training of infant teachers.

Because of the importance of the relationship between perceived job stress and quality of care (Kyriacou, 1987; Sluyter & Mukherjee, 1986), several implications for rehabilitation centres may be drawn from these findings. Job stress related to time pressure can be reduced by developing quality standards for a more balanced distribution of contact and non-contact time in favor of non-contact time, but also by time management programs in which employees learn to work more efficiently. Compared with therapists, infant teachers reported significantly higher levels of job stress. We recommend rehabilitation centres stimulate the continuing professional-

sation of the infant teachers' job by offering extra training opportunities, clarifying their job description and equating their salaries to those of the therapists.

To improve our understanding of the determinants and sources of job stress among employees of Dutch therapeutic toddler classes, longitudinal research is needed. The present study examined whether employees working in therapeutic toddler classes experienced stress on items, concerning different aspects of their work, however, it did not examine whether these items apply. A suggestion for future studies would be to add a sixth answer code which represents: "This item does not apply."

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