Self-reported health, appraisal, coping, and stress in teachers

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Summary

This paper reports on an investigation of self-reported health in a sample of 8,158 teachers. Age groups, groups differing according to the intention to quit premature and school types were compared with respect to self-reported health. A model which predicted self-reported health by means of stress, style of appraisal and coping was investigated. The results indicated that self-reported health was lower in older than in younger teachers, in teachers with the intention to quit premature than other teachers, and in the school type associated with poorer professional perspectives for pupils than other school types. Structural equation modeling revealed that 23 percent of self-reported health was predicted by means of stress, style of appraisal and coping strategies. Style of appraisal received the highest path coefficient in predicting self-reported health. The contributions of coping strategies showed to be almost negligible.

Key words: Self-reported health, stress, appraisal, coping

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Introduction

The aim of this study was the investigation of self-reported health in the population of teachers. Self-reported health is a very important issue in this population. It is a particular matter of interest because health problems must be considered as potential predictor of burnout which is experienced by a considerable number of teachers (e.g., Barth, 1992; Daniel & Schuller, 2000; Taris, Peeters, Le Blanc, Schreurs, & Schaufeli, 2001). The impact of health problems results from their potential to prevent teachers from meeting their professional demands. There are already findings suggesting the existence of a relationship between self-reported health and burnout (Blix, Cruise, Mitchell, & Blix, 1994). Furthermore, this study serves the investigation of the relationship between self-reported health on the one hand and stress, appraisal and coping on the other hand. Although there are already numerous investigations of the relationship between these concepts, a further investigation is necessary because of the observation that the demands of a specific profession influence stress and self-reported health in specific ways (e.g., De Jong, Bosma, Peter, & Siegrist, 2000; Marino, 1997; McCauley McCauley, Ruderman, Ohlott, & Morrow, 1994; Van der Doef & Maes, 1999). This means that specific results can be expected for the population of teachers.

Self-reported Health in Teachers

Self-reported health is a person's judgment about his or her health status. It varies between good and bad and is a major source of health care behavior. Self-reported health is the result of a cognitive process, which retrieves, evaluates and integrates information concerning, for example, psychological well-being, physical activity, acute illness episodes and chronic health impairments (e.g., Denollet, 1994, 1997; Piko, 2000). Since individual characteristics and preferences of perception, evaluation and the integration of information influence the outcome, self-reported health can be assumed to differ from person to person. Although these sources of influence might bias the judgment concerning the health status, comparisons with self-reported health and objective indicators of the health status demonstrated predictive validity of self-reported health (see Farmer & Ferraro, 1997). This result suggested that the privileged access to most of the information concerning the own health status can be transformed into an appropriate judgement. Furthermore, the assessment of self-reported health by even a simple measure led to the observation of a good degree of stability (Martikainen et al., 1999). This is the more surprising since self-reported health can be assumed to change from time to time just as the health status is changing. This was a very important finding because of the simplicity of the measure applied for the assessment of self-reported health.

Self-reported health in teachers is of interest with respect to a number of topics. A very interesting topic is age since increasing age is often accompanied by an impairment of physical health. Furthermore, indicators of well-being as for example optimism show an age-related decrease (Schweizer & Schneider, 1997). Contrary to intuition, in the national representative penal study including a longitudinal framework reported by Farmer and Ferraro (1997) self-rated health showed to be constant over time. Since this study is based on two unselected samples including various professions, their result may not apply to teachers. In contrast, in laid-off workers age was found to be related to self-reported health (Xu, Xiao, & Chen, 2001). Furthermore, the result of a cross-sectional design indicated the expected relationship of age and health (Elovainio, Kivimäki, Kortteinen, & Tuomikoski, 2001).

Another topic of interest is the relationship between self-reported health and burnout with respect to the population of teachers. Actually, it is the relationship between the health status and burnout, which is of interest. It is obvious that a good health status is a favorable precondition for the absence of burnout and, therefore, suggests the intention to stay in the job. In contrast, a poor health status can make it difficult for the teacher to meet professional demands and, consequently, may be regarded as reason for quitting premature. Since self-reported health is a good indicator of the health status (see Farmer & Ferraro, 1997) and there is a positive relationship between self-reported health and self-efficacy (Parkatti, Deeg, Bosscher, & Launer, 1998), there is a rational basis for the assumption of a positive relationship between the report of good health and the intention to stay in the job indicating the absence of burnout.

Furthermore, differences in self-reported health with respect to school types are a topic of interest since school types differ according to the intellectual and social demands of teachers. For example, there are differences due to the pupils' and students' age, their professional perspectives and the neighborhoods of the schools.

Stress, Appraisal and Coping as Predictors

In this section evidence which suggests a relationship between self-reported health on one hand and stress, appraisal and coping on the other hand is considered. Although it is impossible to provide a comprehensive literature review, evidence for the reasonableness of the investigation of the assumed relationships shall be provided. There are many results suggesting a positive relationship between poor self-reported health and stress which is defined as the body's non-specific response to demands (Selye, 1936, 1982). This paper concentrates on the feeling of pressure as response. A decline in self-reported health as a result of previously experienced stress was found (Farmer & Ferraro,1997). Economic stress showed to be associated with poor self-reported health (Hagquist, 1998). In work situations stress due to increased psychological demands and reduced job control is related to poor self-reported health (Andries et al., 1996). In comparing white- and blue-collar workers it was found that psychosocial stress is causally linked to self-reported health as morbidity indicator among other indicators such as bodily symptoms and sickness behavior (Aro & Hasan, 1987). Life stress was observed to be related to poor self-reported health (Iso-Ahola & Park, 1996). Furthermore, an increased level of stress was repeatedly found in combination with poor self-reported health in college students. Stress due to an exam was associated with poor self-reported health as compared to the lack of such stress (Aysan, Thompson, & Hamarat, 2001; Hudd et al., 2000).

Appraisal as the process of evaluating the seriousness of the stressor can also be assumed to show a relationship with self-reported health. In evaluating this relationship stress needs to be considered a possible mediator since in many studies appraisal is conceived as very closely linked to stress and since stress is often defined as the result of the stressors' appraisal (e.g., Acevedo & Ekkekakis, 2001; Nyklicek, Vingerhoets, & Van Heck, 2000). It is implicitly assumed that appraisal which is described as a cognitive process and evaluates incoming information precedes psychological stress (Arnold, 1960, pp. 169-179; Lazarus & Folkman, 1984). Many studies investigating appraisal concentrated on the comparison between specific stimuli. For example, it was demonstrated that the same film can elicit different stress responses depending on the soundtrack provided (Speisman, Lazarus, Mordkoff, & Davison, 1964). This research also led to findings stating that ethnicity and culture influence the

appraisal of stress events (Aranda & Knight, 1997). However, the influence of appraisal is not restricted to stress. It is also important for self-reported health. This is, for example, indicated by the finding that self-reported health depends on psychosocial variables to a higher degree than on physical variables (Andersen & Lobel, 1995). Furthermore, appraisal was found to influence the perception of health risks (Van der Pligt, 1994).

The relationship between self-reported health and coping is not as obvious as the other relationships. Coping is considered as the behavior selected for managing a stressful event and can mean various behavioral strategies. Since different coping strategies vary according to their consequences, different relations to stress and, consequently, self-reported health can be expected. There are some positive results. For example, coping was found to contribute to the prediction of self-reported health in laid-off workers (Xu, Xiao, & Chen, 2001) and in senior police officers (Kirkcaldy, Cooper, & Brown, 1995). In students the availability of more effective coping was observed to be associated with better self-reported health than less effective coping (Aysan, Thompson, & Hamarat, 2001). In contrast, attachment to other persons at work was observed to show a complex rather than a simple relationship with health (Joplin, Nelson, & Quick, 1999). Moreover, no relationship between self-reported health and problem-focused coping was found in patients' spouses (Fowler, 2001).

The Aims of the Study

In the following sections a study that investigates self-reported health with respect to age, intention to quit premature as indicator of burnout and schools types, in a very large sample of teachers who participated in a school-development program is reported. Furthermore, the appropriateness of a model, which links self-reported health to stress, style of appraisal and coping, is investigated. Subsequently, the model is subjected to a further investigation in that it is applied to four subsamples corresponding to four age groups. The aim of this additional investigation is the demonstration of model invariance over subsamples.

Method

Participants

The sample included 8158 teachers of schools which decided to participate voluntarily in a government-supported program of school development. This sample was composed of 4301 females and 3857 males. These teachers received a questionnaire as part of an information seminar. Seminars were held between 1997 and 2001. This sample only included the data of the teachers who provided demographic information so that they could be identified by age, gender and school type. The main purpose of this working place inquiry was a complete or nearly complete opinion pole of the staff in order to provide support for school development.

Assessment instruments

Since the questionnaire addressed many topics unrelated to self-reported health, stress, coping and style of appraisal, it is necessary to restrict the report to the relevant topics. Self-reported health was assessed by two items. The first item comprised the phrase "My health status is ... " and the three response alternatives "rather bad", "satisfactory" and "good". In

parentheses the number 1 was arranged below the label "rather bad", the number 2 below the label " satisfactory" and the number 3 below the label "good" in order to make the meanings of these words more specific. The second item comprised the phrase "How bad do you feel about your present health status" and the three response alternatives "hardly", "average" and "strong". The number 1 was arranged below the label "hardly" in parentheses, the number 2 below the label "average" and the number 3 below the label "strong" in order to make the meanings of these words more specific. The Pearson correlation between these items was -.68 (p<.01). This result suggested a consistency of .81 according to Spearman-Brown. The second item was recoded before computing scores. According to the results presented by Martikainen et al., (1999) this composite is to be regarded as an appropriate representation of self-reported health.

Stress was assessed by a set of seven items. These items were preceded by a phrase which introduced every one of seven stressors. This phrase read "To what degree do you experience pressure due to ...". The stressors were job, working hours per week, number of topics / curriculum, authority induced changes, lack of class rooms and teaching in many classes. Two of the items (family and lack of class rooms) had to be removed in order to obtain a sufficient degree of consistency. The response alternatives available to the respondent were "hardly", "average" and "strong". Again, in parentheses the number 1 was arranged below the label "hardly", the number 2 below the label "average" and the number 3 below the label "strong" in order to make the meanings of these words more specific. Stress scores were obtained by the summation of the items. A Cronbach's Alpha of .72 was observed for this stress scale. The sizes of the part-whole correlations varied between .32 and .54.

Four items served for the assessment of style of appraisal. The style-of-appraisal scale which included these items was expected to indicate whether the person tended to prefer either a positive or negative style of appraisal. Each item consisted of one statement and four response alternatives. The statements read "I can meet the professional demands", "I feel overstrained by the pupils", "I avoid quarrels with colleagues", and "I experience professional problems as challenge rather than as burden". The response alternatives were "very often", "often", "sometimes", and "very seldom". The number 1 was arranged below the label "very often", the number 2 below the label "often", the number 3 below "sometimes" and the number 4 below the label "very seldom". Again, the numbers were expected to make the meaning of the words more specific. A consistency of .55 was observed for this appraisal scale which was obtained by summation after appropriate recoding of the second and third items. The sizes of the part-whole correlations varied between .21 and .36. Although the degree of consistency was not favorable and one item showed a low part-whole correlation, it was acceptable because of the low number of items.

Coping was represented by eight items addressing various ways of responding to professional problems. A phrase initiated the corresponding section of the questionnaire. The phrase read "When I have professional problems, then ...". The ways of responding were presented in the lines below. They were "I talk about it with colleagues", "I ask the school authority for advice and help", "I turn to external authorities", "I turn to the psychological service of the school", "I try to change the conditions at school with the help of others", "I search for literature which gives me advice", "I participate in teacher training", and "I talk about it in a supervision group". The response alternatives were "very often", "often", "sometimes", and "very seldom". The number 1 was arranged below the label "very often", the number 2 below the label "often", the number 3 below "sometimes" and the number 4 below the label "very seldom". Since the items represented quite different behaviors, they

were not assigned to one score representing coping in general. The investigation of the structural properties of these items is reported in the results section.

Further information was collected by asking for the teachers's gender, age, intention to quit premature and type of school. In order to assure anonymity of data, the participants were not asked for their exact age but for their membership in one of four age groups (39 ys and younger, from 40 ys to 44 ys, from 45 ys to 49 ys, 50 ys and older). Anonymity was important because the schools received feedback. Five types of schools were considered: (1) primary schools, (2) schools providing professional education, (3) schools providing general education (similar to high schools), (4) schools preparing for schools which provide professional education (= type 2) and (5) mixture schools. The mixture schools offer courses which are also offered by schools of the types 2 to 4.

The model for the structural investigation

The model assigned the role of the dependent variable to self-reported health and the role of the independent variable to stress, style of appraisal and coping which was subdivided into several strategies. Furthermore, the model showed the following specific features: (1) Some of the measurement models selected for this study assumed correspondence of the links relating the manifest variables to the latent variables. (2) The items of the stress and style-of-appraisal scales were subdivided into two classes each in order to obtain two parallel stress and style-of-appraisal scores. The assignment of items to classes was performed in such a way that the highest degree of similarity between the scores was achieved. This meant that similar degrees of consistency were aspired and also similar correlations with other variables. (3) Self-reported health as latent variable was represented by two manifest variables. Each one of the two items selected for representing self-reported health was considered as one manifest variable. The second one of these items was recoded in order to adjust the meaning to the rating-scale numbers of this item to the meaning of the rating-scale numbers of the other item. (4) Since coping strategies could be expected to be represented by unequal numbers of items, it was decided to have one manifest variable for each coping strategy as latent variable only. The numbers of items representing one coping strategy depended on the result of an exploratory investigation which should precede structural equation modeling.

Statistical analysis

The investigation of age groups, groups differing according to the intention to quit premature and school types was performed by means of t test and analysis of variance. The search for the sets of items representing coping strategies was performed by means of principal component analysis with Varimax rotation. The relationships between the scores were investigated by means of correlation analysis and the relationships between the corresponding latent variables by means of structural equation modeling. The invariance of the model with respect to the four age groups was investigated by multi-group analysis.

Results

Descriptive statistics

The mean scores and standard deviations are presented in Table 1.

Table 1:
Means and Standard Deviations of the Scales Measuring Self-reported Health, Stress, and
Style of Appraisal (N=8,158)

Scale	Mean	SD
Self-reported health	4.70	1.29
Stress	10.44	2.52
Style of appraisal	12.40	1.85

The self-reported health scores varied between the numbers 2 and 6, the stress scores between 5 and 15 and the style-of-appraisal scores between 4 and 16. The transformation of these ranges into the range between zero and one led to the means of .67, .54 and .70 for self-reported health, stress and style of appraisal in corresponding order. The statistics were presented in such a ways that a high self-reported health score indicated good self-reported health, a high stress score a high degree of stress and a high style-of-appraisal score a positive appraisal. Thus, it became apparent that the teachers tended to perceive the health status as satisfactory or good. Furthermore, the degree of reported stress was a bit above the mean of the range and their style of appraisal pointed into the direction of the favorable pole of the scale.

Characteristics of self-reported health in teachers

At first, the relationship between age and self-reported health was investigated. The teachers were assigned to four age groups (39 ys and younger, from 40 ys to 44 ys, from 45 ys to 49 ys, 50 ys and older). The first age group included 1891 teachers, the second 1034, the third 1780 and the fourth 3453. Analysis of variance revealed a significant age effect ($F(3,8012)=230.23$, $p<.01$). The means of the age groups were 5.24, 4.95, 4.71 and 4.33. The numbers suggested that there was an almost linear decrease of self-reported health. According to the Scheffé test all the groups differed from each other substantially.

Next, self-reported health was investigated with respect to the intention to quit premature. There were 3408 teachers indicating that they intended to quit premature whereas 4750 did not. The comparison of the groups indicated a difference in self-reported health (t(6425[assuming unequal variances])$=27.55$, $p<.01$). Teachers signifying that they intended to quit premature showed a lower self-reported health (4.24) than other teachers (5.04). However, since the health difference might be due to age differences, it was necessary to compute a two-way analysis of variance additionally. The results indicated effects due to age ($F(3,8008)=142.54$, $p<.01$), intention to quit premature ($F(1,8008)=341.66$, $p<.01$) and the interaction of age and intention to quit premature ($F(3,8008)=12.80$, $p<.01$). The interaction indicated that the older the teachers were, the more they differed according to self-reported health. Apparently, the result of the analysis of variance confirmed the result of the comparison of means.

Afterwards, the five school types were compared according to self-reported health. Analysis of variance indicated differences between the types ($F(4,8011)=4.62$, $p<.01$). The mean observed for primary schools was 4.70 ($N=817$), for schools providing professional education 4.78 ($N=2528$), for schools providing general education (similar to high schools) 4.72 ($N=1763$), for schools preparing for schools which provide professional education (= type 2) 4.56 ($N=533$) and for mixture schools 4.65 ($N=2375$). According to the Scheffé test the teachers of second type schools differed from the teachers of fourth and fifth type schools. It can be speculated whether the means observed for the teachers' self-reported health reflect the students' professional perspectives for future live due to their education. Since the effect could also be due to age differences, a two-way analysis of variance was computed additionally. Both age and school type led to a significant effect (age: $F(3,7996)=182.86$, $p<.01$; school type: $F(4,7996)=4.77$, $p<.01$) whereas the interaction did not.

Although there was no hypothesis, males and females were compared according to self-reported health. The comparison indicated a substantial difference ($t(7819$[assuming unequal variances])$=3.19$, $p<.01$). Males showed a lower degree of self-reported health (4.65) than females (4.75). However, the size of the effect was rather small. This was indicated by the common variance which was .002.

Exploratory structural investigation

The investigation of the structure of the coping items produced three eigenvalues larger than one (2.16, 1.15, 1.12). The Scree Test suggested the three-component solution which was accepted as result. The loadings obtained by Principal Component Analysis with Varimax rotation are presented in Table 2.

Table 2:
Varimax-rotated Component Loadings of the Coping Items on Three Components

Item	Component 1	Component 2	Component 3
Participating in teacher training	.80	.15	.01
Searching for literature which gives me advice	.77	.13	.02
Talking about it in a supervision group	.55	-.01	.17
Talking about it with colleagues	.03	.80	-.04
Asking the school authority for advice and help	.00	.71	.24
Trying to change the conditions at school with ...	.30	.62	-.02
Turning to external authorities	.02	.05	.79
Turning to the psychological service of the school	.15	.06	.72

The loadings on the first component varied between .00 and .80. Four of the eight items showed loadings larger than .3 on this component. The loadings on the second component varied between -.01 and .80. There were three of the eight loadings showing sizes larger than .30. The loadings on the third component varied between -.04 and .79. Only two of the eight loadings were larger than .30. One of the eight items showed substantial loadings on two components. However, the common variance of the larger loading was about three times the common variance of the other loading

The results of this investigation led to three components giving rise to three composites. The first composite was obtained by the summation of the first, second and third items and

denoted coping by education. The second composite was obtained by the summation of the fourth, fifth and sixth items and denoted coping by seeking support and initiating change. The third composite was obtained by the summation of the seventh and eighth items and denoted coping by drawing on professional support. These composites were considered as representations of coping strategies.

Correlation analysis

Pearson correlations were computed between the scores representing self-reported health, stress, style of appraisal and the three coping strategies. The correlations are provided in Table 3.

Table 3:
Pearson Correlations Between the Scales Measuring Self-reported Health, Stress, Style of Appraisal and Coping Strategies (N=8,158)

Scale	PH	St	Ap	CE	SI	DPS
Self-reported health (PH)	1.00					
Stress (St)	-.27**	1.00				
Appraisal (Ap)	.28**	.03*	1.00			
Coping by education (CE)	.05**	-.02	.09**	1.00		
Coping by seeking support and initiating change (SI)	.11**	-.07**	.24**	.28**	1.00	
Coping by drawing on professional support (DPS)	.01	-.03*	.02	.19**	.16**	1.00

Note. * $\underline{P}$<.05, ** $\underline{P}$<.01.

In interpreting the results included in this Table the same directions should be assumed as in interpreting the results of Table 1. Furthermore, the scales measuring the coping strategies were recoded in such a way that the frequent application of a strategy was indicated by a high number and the seldom application by a small number. The absolute values of the correlations varied between .00 and .28. All but one of the correlations with stress were negative. The highest correlations were observed between self-reported health on the one hand and stress and style of appraisal on the other hand and between coping by education and coping by seeking support and initiating change. Because of the large sample size there were only three correlations which did not reach the level of significance (self-reported health and coping by drawing on professional support, stress and coping by education, appraisal and coping by drawing on professional support).

Structural equation modeling

The model described in the previously presented sections was investigated by means of LISREL 8.5. The aims of this investigation were the estimation of the fit between the model and the data on the one hand and the computation of estimates for the links between the latent variables on the other hand (see Figure 1).
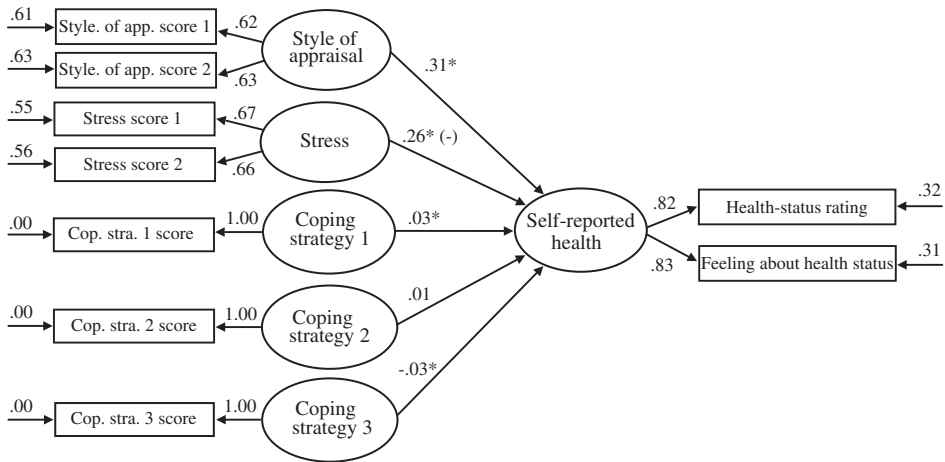
Figure 1:
Model relating self-reported health to stress, style of appraisal and three coping strategies
(standardized solution).

The results observed for the model were favorable. All but one of the indices of goodness-of-fit indicated a good degree of fit, the GFI (.99), the AGFI (.98), the NFI (.98), the NNFI (.96) and the RMSEA (.041). Only the ratio of chi-square and degrees of freedom (14.62) was unfavorable (χ^2=263.18, df=18) since the sample was very large. This model allowed five variables to contribute to the prediction of self-reported health. The standardized gamma coefficients were .31 (style of appraisal: t=14.81, p<.01), .26 (stress: t=14.55, p<.01), .03 (first coping strategy: t=2.62, p<.01), .01 (second coping strategy: t=0.86, n. s.) and -.03 (third coping strategy: t=-2.25, p<.05). The positive value of the gamma coefficient observed for stress was due to the recoding of the correlations with the stress scores. Accordingly, the coefficient suggested that stress impaired self-reported health. This is made obvious by the minus sign added to the Figure in parentheses. This model allowed the independent latent variables to correlate among each other. The correlation between style of appraisal and stress was remarkable (.40). The model predicted 23 percent of the variation in self-reported health. The low sizes of the gamma coefficients for the coping strategies were partly due to the fact that the links were set to one. In assuming that the coping scores showed a low degree of consistency and adjusting the error components of the model accordingly, the sizes of the gamma coefficients could be doubled. However, even a size of .06 is almost negligible.

A multiple-group analysis for investigating invariance

In the next step the invariance of the model with respect to the four age groups was investigated. Invariance is a psychometric property which suggests generality of the model. This meant that the validity of the model should be demonstrated with respect to the subsamples representing different age groups. This investigation was especially interesting since the age groups were already found to differ according to self-reported health. The multiple-group analysis required the comparison of the common version of the basic model presented in the

previous section with the individual version. The common version assumed equality of the gamma coefficients representing the links between the latent variables in the four age groups. The basis model also provided the starting point for the construction of the individual version which allowed the estimation of a specific gamma coefficient for each age group.

The individual version which included individual parameters for each age group led to an overall Chi-square of 395.67 (df=68) whereas the common version which included common parameters for all the age groups led to an overall Chi-square of 417.59 (df=83). Consequently, there was a chi-square difference of 21.92 (df=15) which was associated with an error probability of .11. This result suggested that both versions of the basic model represented the data equally well. In such a case the more simple version was to be preferred over the more complex version. Consequently, the common version of the basic model characterized by common parameters was to be selected. The selection of this version indicated that there was invariance with respect to the age groups. This was an interesting finding since the analyses of variance already revealed differences between the means of the age groups.

Discussion

The teachers' self-reported health was found to vary considerably. Firstly, an age-related decline in self-reported health was observed. Since every age-related decline is accompanied by biological aging which in most cases means decline, this is not an unexpected observation. However, it contradicts the result of the large-scale study by Farmer and Ferraro (1997) who found constancy. The contradiction is presumably due to the professional specificity since the study by Farmer and Ferraro included all kinds of professions whereas this study was restricted to teachers. Secondly, the intention to quit premature was found to be associated with poorer self-reported health than the absence of such an intention. Since teachers with poor health status have more reason to quit their jobs premature than others, this result also meets expectations and the finding of a previous study (Blix, Cruise, Mitchell, & Blix, 1994). The observation of an interaction between age and the intention to quit premature in analysis of variance suggests that the role of poor perceived health changes with respect to the intention to quit premature. The results signify that there is an age-related increase of the importance of poor perceived health. In young teachers the intention to quit premature does not depend on perceived health as much as in old teachers. Thirdly, differences between self-reported health were found for the teachers assigned to different school types. This is the result which provides most difficulties for interpretation since the school types differ according to many features. The comparison of the means observed for the school types indicates that the differences are mainly due to the school type which is characterized as "schools preparing for schools which provide professional education". One interpretation of this result is that teachers' self-reported health reflects the students' professional future perspectives since students are less likely to gain a job after graduating from these schools than from other schools.

Structural equation modeling revealed that the style of appraisal and stress were better predictors of self-reported health than the three coping strategies. The highest gamma coefficient was observed for the style of appraisal. Apparently, the style in the appraisal of information is very important with respect to the evaluation of information concerning the person's health. Since style was assessed with respect to professional demands, the relationship with self-reported health can not be ascribed to similarity of contents. Interestingly, this result suggests that self-reported health is due to an evaluation process that shares characteristics with the evaluation process preceding the experience of stress. In contrast, the results obtained

for coping in predicting self-reported health were disappointing since the correlations were low and the gamma coefficients even were quite small. These results are partly due to the formation of ad-hoc scales composed of a few items only. There was only one correlation which suggested a considerable relationship. It was the correlation between the second coping strategy denoted seeking support and initiating change and style of appraisal. This correlation suggests that giving preference to this strategy is associated with a favorable appraisal. This finding is in agreement with other findings which suggest that selecting an active coping strategy has more favorable outcomes than the selection of a defensive strategy (e.g., Nyklicek et al., 2000). However, this result should be considered carefully since the selection of a coping strategy may also depend on the type of problem. For example, drawing on professional support as coping strategy is costly, and its selection is restricted to severe problems.

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Processes of the Molar Regulation of Behavior

Contemporary research in experimental and general psychology either tends to „micro-deterministic" models focusing on isolated molecular phenomena or emphasizes global conceptions lacking empirical corroboration. This edition presents a series of articles trying to join the advantages of both approaches: They analyze the emergence of molar structures of human behavior on the basis of general psychological theories of emotion, memory, and action, which are strong in their domain with regard to their empirical evaluation, but, in addition, have high explanatory potential beyond it. Part I addresses memory and representation, Part II emotion, action, and thinking, and Part III focuses on resources and coping with stress. The fourth part discusses methodological aspects and examples of contemporary history of psychology related to the molar regulation of behavior. The chapters take a programmatic and integrative perspective in explaining emergence, structure, and functioning of molar behavior against the background of reliable domain-specific theories and, hence, bridge a gap in contemporary psychology.