Measurement and predictors of young adults' perceived ability to cope with dental life events

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The purpose of the present study was to assess coping skills and predictors of the ability to cope with dental life events employing a 10-item rather than a 48-item rating questionnaire. A representative random sample of 1490 subjects aged 25 years from 3 Norwegian counties received a mail questionnaire in March 1997. The response rate was 62% after 1 reminder. Eight selected items from the Social Readjustment Rating Questionnaire (SRRQ) plus 2 dental items were presented as graphic rating scales with the endpoints 'not difficult at all' and 'more difficult than anything'. Mean values were used to rank the life events and for comparison with findings from a previous study. Information was also collected for 16 predictor variables (Table 2). The informants found it moderately difficult to cope with losing one or more teeth and with getting dentures. A 10- and a 48-item rating scale seemed to give comparable results. In multiple logistic regression analysis, controlling for having experienced extraction during the previous 5 years, gender, and dental anxiety were significant predictors of both dental life events; education, many cavities, and belief in keeping teeth for life influenced coping with getting dentures. The identified predictors of dental life events explained <11% of the variance. In addition to extending the list of predictors of perceived need for skills to adjust to dental life events, the study also provided evidence to suggest that it may be acceptable to rely on a shorter rating questionnaire. □ *Behavioral dental science; coping skills; dentures; tooth loss*

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Tooth loss and the wearing of dentures may constitute serious psycho-social problems (1–5), yet the value of teeth and the severity of dental problems have received lower rank compared with other bodily parts, individual health, psychological and material problems (6–8). It is also accepted that life-stress which requires readjustment may be associated with the onset and extent of illness through hormonal and immune system changes (for review, see 9–12). In a Swedish study, Bergendal (13) found that adults aged 20 to 70 years ranked 'losing one or more teeth' as no. 28.5 and 'getting dentures' as no. 33, respectively, among 48 life events ranging from death of a child (rank 48) to increased income (rank 1). Using the same Social Readjustment Rating Questionnaire as Bergendal (13), Haugejorden et al. (14) found that a Norwegian sample of 20–69-year-olds ranked these two dental life events as no. 30 and no. 33. Clearly, dental life events may contribute substantially to individual life-stress (1–5, 10, 13, 14).

Whereas Bergendal (13) reported no significant effect of age and sex on the need for readjustment to losing teeth and getting dentures, an independent significant effect of level of education on losing one or more teeth, and of age, gender, and education on getting dentures was found for Norwegian adults (14). Furthermore, it has been asserted that the perceived need for coping skill is likely to be influenced by having experienced the life event in the recent past (15), but neither Bergendal (13) nor Haugejorden et al, (14) asked whether or not the respondents had experienced extractions recently.

The Social Readjustment Rating scale used in two Scandinavian studies of perceived ability to cope with life events had 48 items (13, 14). The addition of questions designed to collect demographic information and data about dental health behavior and other relevant aspects to study associations makes for long questionnaires. Although long instruments may be preferable in the clinical situation, shorter versions are acceptable for survey purposes (16), where it is important to keep respondent workload within reasonable limits. For these reasons it was decided to test a shortened version of the previously used Social Readjustment Rating Questionnaire (13–15).

The purpose of the present study was to assess perceived coping skills and predictors of the ability to cope with two dental life events employing a 10-item rather than a 48-item rating questionnaire.

Materials

A simple random sample of 1,190 twenty-five-year-olds (born 1972) was drawn from a sampling frame consisting of the 13,550 residents in three counties in the west of Norway (Rogaland, Hordaland, Sogn & Fjordane) in January 1997. A questionnaire, an explanatory letter, and a self-addressed and pre-paid envelope for the reply were sent to the members of the sample in March 1997. To promote participation and to contain costs, the subjects were invited to write sender and address on the envelope,

Table 1. Distribution (%) of the population and respondents aged 25 years (born 1972) resident in the Norwegian counties Rogaland, Hordaland and Sogn & Fjordane (1st January 1997) according to gender and education*

	Population			Respondents		
Education	Women %	Men %	Both %	Women %	Men %	Both† %
Primary	5.8	5.8	5.8	6.5	6.9	6.7
Secondary	62.0	71.5	66.9	51.1	51.9	51.5
University/college	28.6	20.4	24.4	36.5	35.7	36.1
Unknown	3.6	2.4	3.0	5.9	5.5	5.7
Total	100.0	100.1	100.1	100.0	100.0	100.0
n	6,606	6,948	13,554	370	347	717

* Highest completed education on 1st October 1995.
† Missing values 19.

thereby entering a draw for a return trip for 2 by ferry between Bergen (Norway) and Newcastle (England). We promised to separate the completed questionnaire and the envelope immediately on receipt and before looking at the answers (556 joined the lottery). Those who had not replied within 14 days received a reminder comprising a letter, the questionnaire, and a stamped addressed envelope. Twenty-three subjects were lost: 15 because of wrong address, 5 lived abroad, 2 because of mental retardation, and 1 did not understand Norwegian. Seven-hundred-and-thirty-six subjects had answered after 1 reminder (62%). The response rate was significantly higher among women (66%) than among men (56%) ($t = 2.76$, 719 df, $P < 0.01$), and among persons who had completed a college or university education than among people who had only finished compulsory education ($P < 0.001$) (Table 1).

Methods

Data collection was by self-administered postal questionnaire. The questions employed had fixed response options or graphic rating scales. Pre-testing was considered unnecessary because the questions and scales had been widely and successfully used previously.

In addition to demographic information, the questionnaire included a Norwegian translation of two dental anxiety scales (7–19), questions about dietary habits, dental health behavior, extractions during the last 5 years, satisfaction with teeth, belief in retaining natural teeth for a lifetime, dental problems, and self-assessed general health. The question *How easy or difficult do you consider it would be for you to cope with the following life events?* was used to assess perceived coping skill. Eight items from the Social Readjustment Rating Questionnaire (15) plus 2 dental items were employed (Table 3). Based on Bergendal's (13) and Haugejorden et al.'s (14) results, the 8 non-dental items were chosen to represent the whole range of ease/difficulty in coping with life events on SRRQ (15). The 2 dental items were placed in position no. 3 (lose one or more teeth) and no. 6 (getting dentures) on the list of the 10 life events. The items were presented with graphic rating scales whose endpoints were defined as 'not difficult at all' (0 cm) and 'more difficult than anything' (16 cm). The rating scale scores were measured to the nearest mm, and 180 duplicate recordings were performed to assess repeatability. The reliability of measurements was 85% for perfect agreement and 98.9% when permitting a difference of ±0.1 mm. No systematic measurement error was detected ($t = -1.49$, 179 df, $P > 0.10$). For the purpose of comparison with the results of the previous Norwegian study (14), rating scale scores were recalculated to a 20 cm scale for this presentation.

Dependent variables

The rating scale measures of ease/difficulty of coping with losing one or more teeth (LOSE) and with getting dentures (DENTURES) were used as dependent variables in bivariate and multivariate logistic regression analyses. The dependent variables LOSE (median = 13 cm) and DENTURES (median = 16.9 cm) were dichotomized using an approximate median split because the frequency distributions of respondents according to rating scale scores were significantly skewed and exhibited kurtosis that persisted after $\log_{10}$ and square root transformation.

Predictor variables

The predictor variables were dichotomized and coded as shown in Table 2. The highest level of education completed was reported according to the categories given in Table 1. Municipality of residence was re-coded into urban and rural in accordance with 'the main classification of municipalities 1994' (Official Statistics of Norway, 1994). Health problems were assessed on a scale from zero to 10, where zero represented 'no problems' and 10 'serious problems'. The subjects were also asked whether or not they had experienced dental problems during the previous month. Dental anxiety was measured using Corah's (17) and Humphris et al.'s (18) anxiety scales as described by Haugejorden & Klock (19). Some variables pertaining to dental health behavior, opinions, and perceived susceptibility to disease were included (Table 2) as it seemed reasonable to assume that they might be

Table 2. Predictor variables, categories with coding, number of subjects according to category and *P*-values from bivariate logistic regression with LOSE and DENTURES as dependent variables

Predictor	Category	Code	n	LOSE *P*	DENTURES *P*
Gender	Male	0	348	0.000	0.000
	Female	1	373		
Education	>12 years	0	263	0.093	0.011
	≤12 years	1	459		
Residence	Urban	0	390	0.736	0.432
	Rural	1	328		
Health problems	No (≤ 1)	0	428	0.652	0.149
	Yes (≥ 2)	1	297		
Tooth problems	No	0	607	0.278	0.359
	Yes	1	120		
Anxiety	4–12	0	578	0.002	0.025
	13–20	1	126		
Satisfaction	Yes (1–2)	0	514	0.603	0.845
	No (3–5)	1	211		
Visits	Regularly	0	448	0.223	0.374
	Non-regular	1	275		
Reasons no visit	Other	0	607	0.009	0.962
	Anxiety	1	24		
Limit sugar	Probably	0	351	0.845	0.700
	Unlikely	1	372		
Sugar-free	Usually	0	489	0.527	0.019
	Rarely/never	1	230		
Teeth	>28	0	394	0.521	0.266
	0–28	1	314		
Teeth for life	Yes	0	510	0.231	0.005
	Uncertain/no	1	214		
Cavities	Unlikely	0	333	0.317	0.010
	Likely	1	386		
Gingivitis	Unlikely	0	316	0.051	0.150
	Likely	1	403		
Extraction*	No = 0	0	478	0.315	0.051
	≥1 = 1	1	243		

* Control variable.

associated with ease/difficulty of coping with dental life events. Satisfaction with the teeth was assessed on a 5-point scale from very satisfied (=1) to very dissatisfied (=5). One question dealt with frequency of dental visits during the previous 5 years and an open-ended question with reasons for not having been to a dentist for 3 years. Sugar behavior was reported as how likely or unlikely the respondents thought it would be that they would limit their use of sugar-containing foods and drinks in the future. The answers were given on a 7-point scale ranging from very likely (=1) to very unlikely (=7). The informants were also asked about choice between sugar-free and sugar-containing pastilles and chewing gum. They counted the number of natural teeth and reported separately for each jaw, and were asked to indicate how certain or uncertain they were about retaining their natural teeth for a lifetime. The 5 response options ranged from yes, definitely (=1) to no, definitely not (=5). The probability of getting periodontal disease later in life if dental floss was used, and of developing many carious cavities if they limited their use of sugar-containing foods and drinks was recorded on a scale from 1 to 7, where very likely =1 and very unlikely =7. As self-reported ease/difficulty of coping with life events may depend upon the personal experience of the event (15), the respondents were asked about the number of extractions during the previous 5 years.

Statistical analysis

The data were computerized and proofread. The Statistical Package for Social Sciences (SPSS, version 9.0) was used for the analyses. Chi-square tests were employed to compare frequency distribution of subjects on categorical variables and Student's *t* test for independent samples to test differences between means for quantitative variables. The *t* test for paired observations was used to test the null hypothesis that the true difference between repeat measurements on the visual analog scale was zero, and to compare scores for losing one or more teeth and getting dentures. Spearman's rank correlation was employed to assess associations among predictor variables and confirmed that collinearity was no problem. Bivariate effects of predictor variables on dependent variables were studied using logistic regression (Table 2). Multiple logistic regression analysis to control for confounding and a relatively high *P*-value (0.40) was chosen for inclusion of predictors in the multivariate regression model because only a limited number of independent variables have been

Table 3. Ranking of 10 life events in descending order according to mean and standard deviation (SD) (cm) graphic rating scale score showing perceived ease/difficulty in coping among 25-year-olds (this study: 1997) and 20–69-year-olds (previous study, Hordaland county 1990)

Life events	25-year-olds*			20–69-year-olds†		
	Mean‡	SD‡	Rank	Rank	Mean	SD
Death of a child	18.8	2.1	10	10	18.4	2.8
Wife/husband seriously ill	17.4	2.9	9	9	16.5	3.7
Getting dentures	15.5	4.5	8	7	13.8	5.5
Losing one or more teeth	12.5	5.0	7	5	11.8	5.6
Conflict with partner/ fiancé	11.5	4.9	6	6	13.4	4.8
Unemployed ≥1 month	10.1	5.7	5	8	14.4	5.2
Major change at work	6.0	4.2	4	4	7.8	4.9
Birth/adoption of a child	5.6	5.0	3	3	7.7	6.2
Taking a course/studying	5.2	4.7	2	2	7.6	5.6
Increased income	2.2	3.3	1	1	2.9	3.2

* n = 715–731; † n = 276–284; ‡ Recalculated to a 20 cm rating scale.

assessed in the past (13, 14) (Tables 2, 4, and 5). The significance level was set at 5% and odds ratios (OR) were considered significant when the 95% confidence interval did not include one.

Results

The ranking of life events according to ease/difficulty in coping with them was identical for 7 of the 10 items used in the present study when compared with the ranking given by Norwegians aged 20–69 years in 1990 (Table 3) (14). The 20–69-year-olds ranked being unemployed for more than 1 month higher ($P < 0.001$) and getting dentures lower than the 25-year-olds studied in 1997 ($P < 0.001$), but no significant difference as far as coping with the loss of one or more teeth was concerned (t = 1.83, $P > 0.05$). In both groups of subjects from the west of Norway, coping with the loss of 1 or more teeth or getting dentures was assigned a mean score of about the same magnitude as conflict with the partner/fiancé and being unemployed for 1 month or more.

Death of a child was found to be the life event most difficult to cope with (mean = 18.8, rank = 10), while increased income was the easiest to manage of the 10 events (mean = 2.2, rank = 1) (Table 3). The two dental life events received ranks 8 (DENTURES) and 7 (LOSE) and were placed between 'wife/husband seriously ill' (rank = 9) and conflict with partner/fiancé (rank = 6).

Women found it significantly more difficult than men to cope with changes at work ($P < 0.009$), loss of one or more teeth ($P < 0.000$), getting dentures ($P < 0.002$), death of a child ($P < 0.02$), and a partner's serious illness ($P < 0.000$). Men found it more difficult than women to cope with conflict with the partner/fiancé ($P < 0.003$). For the remaining 4 life events, there were no statistically significant gender differences. Overall, and for both genders, it was significantly more difficult to cope with getting dentures than to lose one or more teeth (paired t tests; $P < 0.000$).

In bivariate logistic regression analysis, 10 predictor variables gave $P < 0.40$ when the dependent variable was LOSE (Table 2). When the predictors that satisfied this requirement were entered into a multiple logistic regression analysis with losing 1 or more teeth as the dependent variable, and while controlling for extraction during the last 5 years, only gender and dental anxiety had a significant independent effect on perceived need for coping skill. The multivariate analysis confirmed that women found it more difficult than men to adapt to losing 1 or more teeth (OR = 1.7; 95% CL (confidence limits): 1.22, 2.42) and that, dentally anxious subjects considered it more difficult than non-anxious subjects (OR = 1.7; 95% CL: 1.02, 2.75). Respondents who gave anxiety as their reason for not visiting a dentist during the previous 3 years found it over 3 times more difficult to cope with losing 1 or more teeth than persons who gave other reasons for not seeing a dentist (Table 4), but the confidence interval of this odds ratio was wide and included 1. Explained variance in terms of Nagelkerke's R^2 was 0.071. Omitting the predictor 'extractions during the last 5 years' from the multiple logistic regression analysis affected the results marginally, changing Nagelkerke's R^2 to 0.072.

When coping with getting dentures was the dependent variable in the multiple logistic regression analysis, gender, education, dental anxiety, belief in retaining natural teeth for a lifetime and perceived likelihood of developing many carious cavities in the future had a significant independent effect (Table 5). Being a woman (OR = 1.8; 95% CL: 1.26, 2.48), having completed ≤12 years of formal education (OR = 1.8; 95% CL: 1.24, 2.48) and being dentally anxious (1.6; 95% CL: 1.01, 2.51) made coping with getting dentures more difficult than being male, having >12 years of education and not being classified as dentally anxious. Believing in retention of natural teeth for life and expecting to develop many cavities in the future had the opposite effect on coping with getting dentures (Table 5). The odds ratios were on the whole low, varying from 0.6 to 1.8 with Nagelkerke's $R^2 = 0.106$.

Table 4. Result of multiple logistic regression analysis (enter) with ease/difficulty in coping with losing 1 or more teeth (LOSE) as the binary dependent variable ($n = 582$)

Predictors	Category = 1	B	SE	Odds ratio	95% confidence limits
Gender	Female	0.539	0.176	1.7	1.22, 2.42
Education	≤12 years	0.228	0.181	1.3	0.88, 1.79
Tooth problems	Yes	−0.252	0.245	0.8	0.48, 1.26
Dental anxiety	Anxious	0.511	0.253	1.7	1.02, 2.75
Dental visits	Non-regular	0.245	0.183	1.3	0.89, 1.82
Reasons no visit	Anxious	1.128	0.598	3.1	0.96, 9.98
Teeth for life	Uncertain/no	−0.163	0.193	0.8	0.58, 1.24
Many cavities	Unlikely	−0.012	0.199	1.0	0.69, 1.49
Severe gingivitis	Unlikely	−0.170	0.196	0.8	0.58, 1.24
Extraction	≥1 tooth	−0.194	0.183	0.8	0.58, 1.18
Constant	—	−0.362	0.215	—	—

Nagelkerke's $R^2 = 0.071$ Model $\chi^2 = 32.07$, 10 df, $P < 0.0004$.

Discussion

Direct standardization of means to adjust for the observed significant response bias according to gender and educational level, changed crude mean scores by less than 0.11 cm for losing 1 or more teeth as well as for getting dentures. These adjustments of crude rating scale scores did not change the rank order of life events (Table 3). Consequently, it seems unlikely that the higher response rate among women than among men, and among people with a higher than with a lower level of education has materially biased the estimates.

There were a number of important differences between the Norwegian survey in 1990 (14) and the one in 1997. Firstly, the target population in the former was the County of Hordaland and in the latter the counties of Rogaland, Hordaland and Sogn & Fjordane. Secondly, the participants were all 25 years old in 1997 but aged 20–69 years in 1990. Thirdly, only 10 of the 48 items of the rating questionnaire used in 1990 (14) were employed in 1997, and fourthly, the subjects were unaware of the special interest in dental items in 1990 when the Research Center for Health Promotion appeared as the organization behind the study (14), while in 1997 it was the Faculty of Dentistry. For these reasons it was not surprising to find certain differences in the mean rating scale scores between surveys (Table 3), but encouraging to observe the high level of agreement and similarity in ranking of the life events common to the 2 studies (Table 3). A higher ranking of being unemployed for a month or more (rank 8) by the 20–69-year-olds studied towards the end of a period with increasing unemployment than by 25-year-olds (rank 5) studied during a period of low unemployment (20) was to be expected. The participants older than 25 years in 1990 were also more likely to have heard of and/or experienced the consequences of being unemployed and therefore ranked this life event higher than the present subjects. Whether or not the use of a short rating questionnaire affected the response rate cannot be determined based on this study.

Like Bergendal (13) and Haugejorden et al. (14), we found that the respondents had used the whole range of the rating scale when scoring the two dental items. We also found that losing one or more teeth and getting dentures

Table 5. Result of multiple logistic regression analysis (enter) with ease/difficulty in coping with getting dentures (DENTURES) as the binary dependent variable ($n = 646$)

Predictors	Category = 1	B	SE	Odds ratio	95% confidence limits
Gender	Female	0.570	0.172	1.8	1.26, 2.48
Education	≤12 years	0.564	0.176	1.8	1.24, 2.48
Health problems	Yes	0.300	0.173	1.4	0.96, 1.89
Tooth problems	Yes	−0.316	0.230	0.7	0.46, 1.14
Dental anxiety	Anxious	0.465	0.234	1.6	1.01, 2.52
Dental visits	Non-regular	−0.062	0.178	0.9	0.66, 1.33
Sugar-free	Rarely/never	−0.293	0.182	0.7	0.52, 1.07
Teeth	≤28	−0.298	0.171	0.7	0.53, 1.04
Teeth for life	Uncertain/no	−0.378	0.187	0.7	0.48, 0.99
Many cavities	Unlikely	−0.472	0.191	0.6	0.43, 0.91
Serious gingivitis	Unlikely	−0.020	0.187	1.0	0.68, 1.41
Extraction	≥1 tooth	−0.201	0.178	0.8	0.58, 1.16
Constant	—	−0.117	0.232	—	—

Nagelkerke's $R^2 = 0.106$.
Model $\chi^2 = 53.63$, 12 df, $P < 0.0000$.

required about as much coping skill as conflict with the partner/fiancé and being unemployed for 1 month or more (Table 3).

Losing 1 or more teeth and getting dentures required a degree of readjustment above the grand mean of the 10 items on the short rating questionnaire employed in the present study. This applied for these 10 items both in 1990 (mean = 11.41) (14) and in 1997 (mean = 10.47) (Table 3).

The female respondents returned significantly higher mean scores than the male respondents on both dental items, a result which corroborates the previous findings from Sweden (13) and from Norway (14). The higher rating scale score reported by females may be because they appear to assess and react to life stress events at higher levels than males (16); alternatively, that females tend to be more dentally conscious than their male counterparts. The tendency to a higher mean score on both dental items in this study supports this contention.

As in past studies (15, 21), females also tended to return higher scores on non-dental life events, but not invariably so. This agrees with others who have found limited influence of gender on the perceived need for coping skills (16, 21–23).

Bergendal (13) found no significant bivariate effect of age and sex on losing 1 or more teeth. Haugejorden et al. (14) agreed as far as age was concerned, but reported a significant bivariate effect of gender and level of education. In a multivariate analysis controlling for age, sex, and residence, only education had a significant independent effect on losing 1 or more teeth in 1990 (14). The effect of age could not be assessed in the present study because all subjects were aged 25 years and place of residence did not have a significant effect in either 1990 (14) or in 1997. The significant bivariate effect of gender on losing 1 or more teeth was confirmed in multivariate analysis, but level of education had neither a bivariate nor a multivariate effect among 25-year-olds in 1997 (Tables 2 and 4). Dental anxiety and reason for no dental visits during the previous 3 years were not included in the previous Scandinavian studies (13, 14). Multivariate analysis confirmed an independent effect of dental anxiety on losing 1 or more teeth after controlling for the predictors listed in Table 4. The effect of gender may be attributable to women being more dentally conscious than males. A possible explanation for the effect of dental anxiety may be that dentally fearful individuals have already lost more teeth and have poorer oral health than non-anxious individuals (24–27). Care is necessary, however, when interpreting these statistically significant associations because explained variance was low both in 1990 (5.2%) and in 1997 (7.1%).

Lundberg & Theorell (15) suggested that having experienced the life event recently might influence perceived need for coping skills, but this notion was not confirmed for coping with the loss of 1 or more teeth. One possible explanation for this unexpected finding may be that most of the extractions experienced by these 25-year-olds were of third molars or teeth extracted for orthodontic reasons from otherwise intact permanent dentitions (mean = 29.1, SD = 2.42 teeth). The extraction experience was low and the teeth extracted did not need to be replaced.

As far as adapting to getting dentures is concerned, the present study of 25-year-olds confirmed gender and level of education as significant predictors and that place of residence (urban/rural) had no independent effect (14). In addition, dental anxiety, belief in retaining natural teeth for life and expecting to develop many cavities were significant predictors of coping with getting dentures after controlling for the other co-variates listed in Table 5.

A significant effect of gender on coping with getting dentures was found in both Norwegian studies (14). One possible explanation of this gender effect may be the greater dental awareness among women than among men. Bergendal (13) found no significant bivariate effect of sex on coping with getting dentures in her study of Swedish adults. No obvious explanation for this discrepancy between Swedish and Norwegian adults could be identified.

Studies have shown that persons with low socio-economic status are more vulnerable to undesirable life events than their higher status counterparts (16, 28). This was also the case in the present study for getting dentures, i.e. provided that the educational variable is a valid indicator of socio-economic status. This social gradient seems to be associated both with the existence of a broad set of coping resources and with better financial circumstances (for review see 28). The extent to which these mechanisms can account for the present correlation cannot be decided on the basis of the present data. Furthermore, caution is necessary when interpreting these significant associations because the predictors included in the multiple logistic regression analyses explained 10% of the variance in rating scale scores for coping with getting dentures (Table 5).

The explanation for the significant effect of dental anxiety on adapting to losing 1 or more teeth probably also applies when getting dentures is the dependent variable in the multiple logistic regression analysis. A possible mechanism behind the independent effect of belief in retaining natural teeth for life and expecting to develop many cavities in the future (Table 5) may be acceptance of the possibility of needing dentures sometime in the future and readiness to cope with any problems if or when they arise.

Available life-event change questionnaires have ranged widely in the number of events employed (16). Miller & Rahe (16) used 74 and recommended that 60 to 75 potentially relevant events be covered to ensure adequate coverage of rare, yet important life events. They did, however, acknowledge that long questionnaires are more suitable for clinical than for survey purposes. Generally, falling response rates in surveys (29–31) and the presumed familiarity of the present target population with the events losing 1 or more teeth and getting dentures was the main reason for testing a shorter version of the Social Readjustment Rating Questionnaire (15) in the present

study. The 48-item Norwegian translation of the Social Readjustment Rating Questionnaire has previously been validated against results of Scandinavian studies (13–15). Comparison of mean scores and the ranking (Table 3) of the life events common to the 48- and 10-item versions ($r_s = 0.92$) indicates that it is permissible to use the shorter version in the survey situation.

This study, employing a 10-item rating questionnaire, confirmed that the perceived coping skills needed to readjust to losing 1 or more teeth, or coping with getting dentures, are at about the same level as required to cope with being unemployed for 1 month or more, or conflict with partner/fiancé. Gender and dental anxiety had an independent significant effect on coping with losing 1 or more teeth, but the effect of education previously reported (14) was not confirmed. Perceived need for coping skills to adjust to getting dentures was affected by gender, dental anxiety, educational level, expecting to develop many cavities in the future, and belief in retaining natural teeth for life, thus confirmed our expectations and extended knowledge about possible predictors of coping ability. It should, however, be noted that the significant predictors accounted for less than 11% of explained variance in required coping skills. In addition to extending the list of predictors of perceived need for skills to adjust to dental life events, the study also provided evidence to suggest that it may be acceptable to use a shorter rating questionnaire for survey purposes.

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