

# Italian Validation of the Psychosocial Impact of Dental Aesthetics Questionnaire (PIDAQ)

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## Abstract

The Psychosocial Impact of Dental Aesthetics Questionnaire (PIDAQ) is a scale which measures aspects of the oral health-related quality of life. However, no Italian version of PIDAQ has been developed. The aim of this study was to translate the original English version of PIDAQ into Italian and to assess the validity and reliability of the Italian version for application among Italian adults. The questionnaire was translated into Italian, back translated, pre-tested, and cross-culturally adapted. Subsequently, the Italian version of PIDAQ and the Oral health impact Profile-14 (OHIP-14) were administered to 264 orthodontic patients aged from 18 to 83 years old, mean age was (38.39 + 16.9) belonging to Southern Italy. Cronbach's alpha of the translated PIDAQ was 0.82, corrected item-total correlation ranged from 0.48 to 0.67. The 23 items of PIDAQ were divided into four domains. There was a logical relation among the items in the same domain and a highly significant association among scores of PIDAQ and the other scale. The translated Italian version of PIDAQ demonstrated good reliability and validity. Its sufficient discriminative and evaluative psychometric properties provide the theoretical evidence for further use in study on orthodontic-specific aspects of quality of life among Italian adults.

## Keywords

Oral health, Quality of Life, Validation

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## 1. Introduction

Quality of life involves a combination of objectively and subjectively indicated wellbeing in multiple domains of life considered salient in one's culture and time [1]. A specific area of general Quality of life is represented by the Health-related quality of life (H-QoL), a multidimensional construct capturing physical, psychological, and social domains of health, seen as distinct areas that are influenced by a person's experiences, beliefs, expecta-

tions, and perceptions [2]. More specifically Locker [3], noticing how effects of impairments on disability or reduced opportunity are mediated by intervening personal and environmental factors, defines H-QoL as a person's assessment of how the following factors affect his or her wellbeing: (a) functional factors; (b) psychological factors; (c) social factors and (d) the experience of pain/discomfort. These factors applied also to Oral Health that, according to Locker, are composed by three dimensions hierarchically organized: the biological level (impairment), the behavioural level (functional limitation, discomfort and disability) and the social level (handicap). Therefore Oral Health quality of life (OH-QoL) is "the absence of negative impacts of oral conditions on social life and a positive sense of dentofacial self-confidence" [4]. OH-QoL is assessed when the problems, in terms of functional, psychological and social discomfort, centre on oro-facial concerns. Most of research on OH-QoL focused on the various forms of malocclusion, which negatively impact on quality of life and can impair social interaction, interpersonal relationships, and psychological well-being until producing feelings of inferiority [5]. Orthodontic treatment traditionally only focuses on the professional's perception that often is considerably different from patient's one in establishing the need of orthodontic treatment underestimating the importance of the psychosocial dimension [6]. Many measures of OH-QoL have been developed in adult, such as the GOHAI [7] OHIP [8] OIDP [9] and OH-QoL Inventory [10]. There is the need of a tool that allows measuring the impact of oral conditions on QoL taking into account not only the objective entity of physical disease but also the subjective aesthetic concerns and the psychological and social impact of dental problem on daily living. In other words OH-QoL measures must reflect how oral disorders affect the whole QoL of individuals, such as the psychosocial impact of dental aesthetics questionnaire (PIDAQ). The PIDAQ is a self rating instrument used to provide information on OH-QoL that focuses on individuals' perceptions and puts particular emphasis on psychosocial dimension. Brazilian, Chinese and Spanish versions of the PIDAQ have been published recently, but no Italian version has yet been published in any international nor national journal. Prompted by the importance that this type of questionnaire has acquired, this study aimed to translate the English version of PIDAQ into Italian and assess its validity, in order to provide the theoretical basis for further application in Italian population.

## 2. Methods

### 2.1. Measures

The Psychosocial Impact of Dental Aesthetics (PIDAQ, see **Table 1**) is a psychometric instrument for the assessment of orthodontic specific aspects of quality of life, developed by Klages [11]. It consists of 23 items that factor analysis grouped in four factors: 1) Dental Self-Confidence (DSC); 2) Social Impact (SI); 3) Psychological Impact (PI); 4) Aesthetic Concern (AC). The first factor is the Dental Self-Confidence that consists of 6 items from the Self-Confidence Scale [12] [13]. The second factor is the Social Impact that contains eight revised items (numbers 15 - 22) from the Social Aspects Scale of the Orthognathic Quality of Life Questionnaire (OQLQ) [1]. The third factor is the Psychological Impact that derives from six newly formulated items relating mainly to the psychological impact of dental aesthetics. The fourth factor is the Aesthetics Concern from the Aesthetics Scale of the Orthognathic Quality of Life Questionnaire (OQLQ). The patient have to evaluate the items using a five-point Likert scale with numerical values 0 = "not at all", 1 = "a little", 2 = "somewhat", 3 = "strongly" and 4 = "very strongly". In this work we used the brief version of the instrument OHIP-14 that is a self-filled questionnaire that focuses on seven dimensions of impact (functional limitation, pain, psychological discomfort, physical disability, psychological disability, social disability and handicap). Orthodontic patients are asked to indicate on a five-point Likert scale how frequently they experienced each problem within a reference period, for example 12 months. Response categories for the five-point scale are: never (score 0), hardly ever (score 1), occasionally (score 2), fairly often (score 3) and very often (score 4). We estimated OHIP with sums, thought the additive method. All impacts are conceptualized as adverse outcomes, and therefore the instrument does not measure any positive aspects of oral health [14].

### 2.2. Procedure

#### 2.2.1. Translation, back Translation and Cross-Cultural Adaptation

PIDAQ was translated into Italian by one orthodontist and two psychologists PhD student who were all expert at English. The first version of the questionnaire was translated back into English by an English teacher. After back translation, comparison, and modification, the Italian version was formed. Cultural adaptation of the Italian version

**Table 1.** Items of PIDAQ according to the four factors.

|            |   |
|------------|---|
| <b>DSC</b> | 1. I am proud of my teeth.  |
|            | 2. I like to show my teeth when I smile.  |
|            | 3. I am pleased when I see my teeth in the mirror.  |
|            | 4. My teeth are attractive to others.   |
|            | 5. I am satisfied with the appearance of my teeth.  |
|            | 6. I find my tooth position to be very nice.  |
| <b>SI</b>  | 7. I hold myself back when I smile so my teeth don't show so much.                            |
|            | 8. If I don't know people well I am sometimes concerned what they might think about my teeth. |
|            | 9. I'm afraid other people could make offensive remarks about my teeth.                       |
|            | 10. I am somewhat inhibited in social contacts because of my teeth.                           |
|            | 11. I sometimes catch myself holding my hand in front of my mouth to hide my teeth.           |
|            | 12. Sometimes I think people are staring at my teeth.   |
|            | 13. Remarks about my teeth irritate me even when they are meant jokingly.                     |
|            | 14. I sometimes worry about what members of the opposite sex think about my teeth.            |
| <b>PI</b>  | 15. I envy the nice teeth of other people.  |
|            | 16. I am somewhat distressed when I see other people's teeth.                                 |
|            | 17. Sometimes I am somewhat unhappy about the appearance of my teeth.                         |
|            | 18. I think most people I know have nicer teeth than I do.                                    |
|            | 19. I feel bad when I think about what my teeth look like.                                    |
|            | 20. I wish my teeth looked better.  |
| <b>AC</b>  | 21. I don't like to see my teeth in the mirror.   |
|            | 22. I don't like to see my teeth in photographs.  |
|            | 23. I don't like to see my teeth when I look at a video of myself.                            |

was accomplished by two master class students. One was formed by Orthodontists from the Department of Orthodontics. The other was composed by Psychologists from the Department of Human and Social Science. Conceptual equivalence and semantic equivalence were investigated to make a further final revision.

### 2.2.2. Data Collection

Subjects were recruited in the waiting rooms of several private dental clinics, between October 2012 and June 2013. Each subject was informed in advance about the contents and purpose of the research. Have been tested only subjects who signed informed consent. The subjects were provided with all the instructions needed to compile and anonymity was granted. The administration required for each participant between 15 to 30 minutes in a single session.

## 3. Results

Sample Subjects were randomly selected from an original sample of 373 patients registered in the dental clinics of Sicily and Calabria. A total of 280 individuals were extracted but only 264 accepted to participate to the research and completed all the questionnaires (6% non participating). The mean age was 38.39 (+16.9), ranging from 18 to 83 years, of which 42.9% males and 57.1% females. The sample was divided into three age groups ranging from: 18 to 30 years (45.8%); 31 to 50 years (33.8%) and 51 to 83 years (20.4%). Questionnaire survey

was conducted by using Italian version of PIDAQ and OHIP-14 [15]. All subjects were under orthodontic treatment. All individuals were asked whether they had demand for orthodontic treatment and, in particular, the reasons for seeking orthodontic treatment (crooked teeth, spaced teeth, protruding jaw, dentist referral).

### 3.1. Data Analysis

Data analysis was conducted with the Statistical Package for Social Sciences (SPSS 0.17). The internal consistency was analysed with Cronbach's alpha coefficient and Pearson's correlation demonstrate the reliability of the instrument. Construct validity was studied by a confirmatory factor analysis of PIDAQ dimensions. Correlation of PIDAQ and OHIP-14 was analysed to test its criterion validity. Pearson's correlations were performed to evaluate the criterion validity. Finally difference of scores between two groups (with low and high scores of OHIP-14) was performed with Student's t test to determine the discriminant validity of PIDAQ. **Table 2** shows descriptive statistics in our sample.

### 3.2. Reliability

PIDAQ internal consistency is adequate: Cronbach's alpha coefficient was 0.82, above the recommended .70 threshold [16] and could be slightly improved by deletion of individual item ( $\alpha = 0.84$  if item 2 is deleted). Correlation coefficients of items and scale were between 0.48 and 0.67, except for the item 19 ( $r = 0.33$ ). Principal component factor analysis extracted four dimensions, correspondent to the original subscales. Their Cronbach's alpha coefficients are shown in **Table 3**.

### 3.3. Construct Validity

The Kaiser-Meyer-Olkin measure of sampling adequacy was .91 and the Bartlett's test of sphericity was 2814.2 ( $p < 0.001$ ). The principal component analysis (Rotation Method: Varimax with Kaiser Normalization), extracted the same four dimensions obtained by Klages in the original questionnaire validation process (**Table 4**). Factor 1 contained the original Social Impact subscale items 7 - 14 (eigenvalue = 10.04) and explained 43.67% of the variance. Factor 2 contained items 1 - 6, comprising the Dental Self Confidence sub-scale (eigenvalue = 3.33), and explained 14.51% of the variance. Factor 3 contained the same items 15 - 20 as the Psychological Impact subscale (eigenvalue = 1.60) and explained 6.97% of the variance. Finally, Factor 4 contained the items 21 - 23 of the Aesthetic Concern subscale (eigenvalue = 1.14) and explained 4.99% of the variance. In total, these 4 components explained 70.16% of the total variance.

**Table 2.** Descriptive statistics (N = 264).

|                        | Min | Max | M     | SD    |
|------------------------|-----|-----|-------|-------|
| OHIP Tot               | 0   | 50  | 12.86 | 11.84 |
| Dental Self-confidence | 6   | 30  | 16.35 | 6.24  |
| Social Impact          | 8   | 40  | 12.74 | 6.24  |
| Psychological Impact   | 6   | 29  | 12.42 | 5.24  |
| Aesthetic Concerns     | 3   | 15  | 6.41  | 3.16  |
| PIDAQ tot              | 26  | 87  | 47.93 | 11.45 |

**Table 3.** Internal consistency of PIDAQ's subscales (N = 264).

| Scale                  | N. of items | Cronbach's alpha |
|------------------------|-------------|------------------|
| Dental Self-confidence | 6 (1 - 6)   | 0.94             |
| Social Impact          | 8 (7 - 14)  | 0.91             |
| Psychological Impact   | 6 (15 - 20) | 0.86             |
| Aesthetic Concerns     | 3 (21 - 23) | 0.82             |

**Table 4.** Factor structure of PIDAQ (N = 264).

|                                       | SI            | DSC           | PI            | AC            |
|---------------------------------------|---------------|---------------|---------------|---------------|
| Item 1-Proud of teeth                 | -0.129        | <b>0.829*</b> | -0.082        | -0.025        |
| Item 2-Like to show teeth             | -0.123        | <b>0.815*</b> | -0.170        | -0.155        |
| Item 3-Pleased to see teeth in mirror | -0.011        | <b>0.857*</b> | -0.174        | -0.167        |
| Item 4-Teeth are attractive           | -0.186        | <b>0.845*</b> | -0.194        | -0.136        |
| Item 5-Satisfied with appearance      | -0.130        | <b>0.888*</b> | -0.122        | -0.162        |
| Item 6-Find tooth position nice       | -0.131        | <b>0.838*</b> | -0.091        | -0.053        |
| Item 7-Hold back when I smile         | <b>0.530*</b> | -0.179        | 0.038         | 0.495         |
| Item 8-What others think              | <b>0.692*</b> | -0.216        | 0.164         | 0.283         |
| Item 9-Offensive remarks              | <b>0.861*</b> | -0.126        | 0.123         | 0.086         |
| Item 10-Inhibited in social contacts  | <b>0.784*</b> | -0.076        | 0.170         | 0.158         |
| Item 11-Hide my teeth                 | <b>0.696*</b> | -0.127        | 0.176         | 0.320         |
| Item 12-People stare                  | <b>0.720*</b> | 0.022         | 0.323         | 0.001         |
| Item 13-Irritated by remarks          | <b>0.689*</b> | -0.116        | 0.144         | 0.250         |
| Item 14-Worry about opposite sex      | <b>0.627*</b> | -0.145        | 0.367         | 0.154         |
| Item 15-Envy                          | 0.377         | -0.312        | <b>0.447*</b> | 0.202         |
| Item 16-Somewhat distressed           | 0.133         | -0.168        | <b>0.784*</b> | 0.189         |
| Item 17-Somewhat unhappy              | 0.393         | -0.158        | <b>0.774*</b> | 0.147         |
| Item 18-Others have nicer teeth       | 0.489         | -0.111        | <b>0.691*</b> | 0.137         |
| Item 19-Feel bad                      | -0.011        | -0.271        | <b>0.643*</b> | 0.308         |
| Item 20-Wish teeth looked better      | 0.369         | -0.112        | <b>0.743*</b> | 0.159         |
| Item 21-Don't like teeth in mirror    | 0.327         | -0.199        | 0.237         | <b>0.765*</b> |
| Item 22-Don't like teeth in photo     | 0.301         | -0.197        | 0.358         | <b>0.764*</b> |
| Item 23-Don't like teeth on video     | 0.289         | -0.160        | 0.385         | <b>0.745*</b> |

Rotation Method: Varimax with Kaiser Normalization; \* in bold significant item loading on the Factor.

### 3.4. Criterion Validity

Correlation between OHIP-14 subscales and the PIDAQ scales were statistically significant (**Table 5**), except for Social Disability (OHIP) with Dental Self-confidence (PIDAQ). Negative correlations are due to the positive DSC scale.

### 3.5. Discriminant Validity

Significant differences in the mean scores for the Social Impact (SI), Psychological Impact (PI) and Aesthetic Concern (AC) subscales were found between OHIP Z score groups (**Table 6**). The mean scores for PIDAQ subscales differed significantly between the groups classified by OHIP grades (High impact  $\geq 1.96$ ; Low impact  $\leq 1.96$ ). Furthermore significant differences were found between the three age groups (see **Table 7**). Younger people show higher Social Impact (SI) than older, while orthodontic patients ranging from 31 to 50 years have higher Aesthetic concern (AC). There were not differences due to gender.

**Table 5.** Pearson's correlation between oral health and psychosocial impact of dental aesthetics.

|                          | DSC      | SI      | PI      | AC      | Total   |
|--------------------------|----------|---------|---------|---------|---------|
| Functional Limitation    | -0.170*  | 0.424** | 0.312** | 0.290** | 0.164*  |
| Physical Pain            | -0.279** | 0.366** | 0.390** | 0.332** | 0.298** |
| Psychological Discomfort | -0.225** | 0.502** | 0.402** | 0.383** | 0.383** |
| Physical Disability      | -0.179*  | 0.500** | 0.348** | 0.290** | 0.302** |
| Psychological Disability | -0.234** | 0.601** | 0.464** | 0.441** | 0.469** |
| Social Disability        | -0.134   | 0.489** | 0.350** | 0.311** | 0.364** |
| Handicap                 | -0.168*  | 0.531** | 0.395** | 0.328** | 0.419** |
| OHIPTot                  | -0.252** | 0.588** | 0.461** | 0.413** | 0.435** |

\*\*p < 0.01 (2-tailed); \*p < 0.05 (2-tailed).

**Table 6.** Differences in PIDAQ means according to oral health impact profile high and low.

|                        | Z scores < 1.96 (N = 244) |    | Z scores > 1.96 (N = 20) |    | t-test for Equality of Means |         |
|------------------------|---------------------------|----|--------------------------|----|------------------------------|---------|
|                        | M                         | SD | M                        | SD | t                            | p value |
| Dental Self-confidence | 16.11 ± 5.87              |    | 14.64 ± 7.55             |    | 0.78                         | 0.433   |
| Social Impact          | 12.15 ± 5.51              |    | 19.95 ± 9.57             |    | -5.68                        | 0.000   |
| Psychological Impact   | 12.10 ± 4.93              |    | 16.35 ± 7.18             |    | -3.56                        | 0.000   |
| Aesthetic Concerns     | 5.37 ± 3.06               |    | 8.25 ± 4.26              |    | -3.91                        | 0.000   |

**Table 7.** Differences in PIDAQ scores by age levels.

|                        | 18 - 30 (N = 121) | 31 - 50 (N = 89) | 51 - 83 (N = 54) | Chi-Square | p value |
|------------------------|-------------------|------------------|------------------|------------|---------|
|                        | Mean              | Mean             | Mean             |            |         |
| Dental Self-confidence | 15.96             | 16.78            | 16.85            | 1.164      | 0.559   |
| Social Impact          | 13.23             | 13.27            | 11.33            | 7.309      | 0.026   |
| Psychological Impact   | 12.35             | 12.83            | 11.04            | 4.433      | 0.109   |
| Aesthetic Concerns     | 6.29              | 6.84             | 5.89             | 6.647      | 0.036   |
| PIDAQ                  | 47.83             | 49.73            | 45.11            | 5.145      | 0.076   |

## 4. Discussion

Translation of a questionnaire is essential if an instrument is not available in a language understood by the target population. The initial stage of translation is a source language questionnaire, from which translation in required language is done [17]. Essentially there are three types of validity: 1) content validity, 2) criterion-related validity, and 3) construct validity [18]. Factor analysis has shown that the structure of Italian version of PIDAQ questionnaire, composed by four dimensions, is the same as that developed by Klages and employed in the Brazilian [19], Spanish [20] and Netherlands version of PIDAQ. The Chinese version [21] instead obtained only three factors: social impact, aesthetic attitude and dental self confidence. The Italian version of the PIDAQ has shown good reproducibility, as Cronbach's alpha was between 0.82 and 0.94 for the 4 subscales. On comparing these data with the original study conducted by Klages [11] and with those obtained in the other version of PIDAQ Italian version of the questionnaire obtained similar results. PIDAQ internal consistency is adequate: Cronbach's alpha coefficient was 0.82, above the recommended 0.70 threshold and could be slightly improved by deletion of individual item. Principal component factor analysis extracted four dimensions, correspondent to the original

subscales: (1) Dental Self Confidence; (2) Social Impact; (3) Psychological Impact; (4) Aesthetic Concern. In total, these 4 components explained 70.16% of the total variance. Correlation between OHIP-14 subscales and the PIDAQ scales were statistically significant, except for Social Disability (OHIP) with Dental Self-confidence (PIDAQ). Negative correlations are due to the positive DSC scale. We chose to use OHIP as instrument of assessment because PIDAQ and OHIP have a common theoretical frame that can be referred to Locker's model of oral health, that revealed people's perception of the impact of oral disorders on the wellbeing. In fact data confirmed that these aspects are strictly connected and could discriminate between various grades of Oral Health: the mean scores for the Social Impact (SI), Psychological Impact (PI) and Aesthetic Concern (AC) subscales differed significantly between the groups classified by OHIP grades (High impact vs. Low impact). Furthermore we found significant differences between the three age groups. Younger people show higher Social Impact (SI) than older, while orthodontic patients ranging from 31 to 50 years have higher Aesthetics concern (AC). In literature most of subjects of the validation studies were young adult (18 - 30) except for Spanish version, in which were tested young adolescents. Until this moment there was a lack of information about the Dental aesthetics of orthodontic patients over 35 years. For this reason we divided the sample in three age groups: young adult (18 - 30), adult (31 - 50) and mature (>51). In this way we could have on one hand a reference group that could be easily comparable with those used by most other studies of instrument validation, and, on the other hand, a sample that could represent the entire population of reference including the, albeit rare, orthodontic patients in middle and old age.

## 5. Conclusion

The results show that the Italian version of PIDAQ has a very similar internal structure and psychometric properties to those of the original questionnaire by Klages, as well as excellent reproducibility, and can validly be used with Italian orthodontic patients. The main limit of the study relates to the fact that the sample was recruited only in southern Italy and therefore could be not representative of the whole Italian population. In fact the study is the first Italian adaptation of the instrument. We reserve to continue in this research area considering that our results are statistically significant. The Italian adaptation of PIDAQ demonstrated good reliability and validity. Its sufficient discriminative and evaluative psychometric properties provide the theoretical evidence for further use in study on orthodontic-specific aspects of quality of life among Italian adults.

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## Appendix

### “QUESTIONARIO SULL’IMPATTO PSICOSOCIALE DELL’ESTETICA DENTALE (PIDAQ)”

Maschio  Femmina  Età \_\_\_\_\_

0 = Per niente; 1 = Poco; 2 = Abbastanza; 3 = Molto; 4 = Moltissimo

| Motivo del trattamento ortodontico:  | 0                        | 1                        | 2                        | 3                        | 4                        |
|--|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
| Denti storti   | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Denti spaziati   | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Protrusione scheletrica (mascellare-mandibolare)   | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Indicato dal dentista  | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| <hr/>  |                          |                          |                          |                          |                          |
| 1. Sono orgoglioso dei miei denti  | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 2. Mi piace mostrare i denti quando sorrido  | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 3. Sono compiaciuto dell’aspetto dei miei denti allo specchio  | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 4. I miei denti sono attraenti per gli altri   | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 5. Sono soddisfatto dell’aspetto dei miei denti  | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 6. Trovo che i miei denti siano ben posizionati  | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| <hr/>  |                          |                          |                          |                          |                          |
| 7. Mi trattengo dal ridere per non mostrare troppo i denti   | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 8. Se non conosco bene le persone a volte mi preoccupa di quello che potrebbero pensare dei miei denti | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 9. Ho paura che le altre persone possano fare commenti offensivi sui miei denti                        | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 10. Sono in qualche modo inibito nei contatti sociali a causa dei miei denti                           | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 11. Qualche volta metto le mani davanti alla bocca per nascondere i denti                              | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 12. Qualche volta penso che la gente fissi i miei denti  | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 13. Le critiche ai miei denti mi irritano anche quando sono fatte in tono scherzoso                    | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 14. Qualche volta mi preoccupa di quello che pensano persone del sesso opposto circa i miei denti      | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| <hr/>  |                          |                          |                          |                          |                          |
| 15. Invidio la bellezza dei denti altrui   | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 16. Sono in qualche modo stressato quando vedo i denti degli altri                                     | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 17. Qualche volta sono in qualche modo infelice per l’aspetto dei miei denti                           | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 18. Penso che la maggior parte delle persone che conosco abbiano denti più belli dei miei              | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 19. Mi sento male quando penso all’aspetto dei miei denti  | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 20. Desidererei che i miei denti avessero un aspetto migliore  | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| <hr/>  |                          |                          |                          |                          |                          |
| 21. Non mi piace vedere i miei denti allo specchio   | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 22. Non mi piace vedere i miei denti in fotografia   | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 23. Non mi piace vedere i miei denti quando mi guardo in un video                                      | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |