Sexual Dysfunction Questionnaire: scale development and psychometric validation

Questionario sulle Disfunzioni Sessuali: sviluppo e validazione psicometrica della scala

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Summary

Objective

Sexual activity is an important dimension within quality of life. The fundamental psychological needs of an individual are represented by four psychodynamic factors: attachment, autonomy, sexual identity, and self-esteem. Sexual disorders are common in psychiatric patients and include desire, arousal, orgasmic, and pain disorders. Along with the positive aspects of human sexuality, however, mental illnesses can also affect an individual's sexual health. We believe that this area of research lacks standard tools to highlight the presence of sexual problems and the associated personality traits in psychiatric patients (men and women). For these reasons, we developed a brief, practical, and simple self-reported questionnaire that would address most of the common sexual problems in psychiatric patients.

Methods

Following the methodology used in many research studies, we chose a list of items. The resulting 31-item questionnaire was administered to a sample of psychiatric patients (149 men and 333 women), to verify internal consistency and validity. We used factor analysis to identify underlying variables (or factors) that explain the pattern of correlation within a set of observed variables. Internal consistency of the questionnaire was assessed through Cronbach's alpha coefficient. Twelve questions were shown to have no statistical significance. The final instrument consisted of 19 questions on a 5-point Likert scale: Always, Often, Sometimes, Rarely, and Never (see Appendix 1). Subjects were required to fill the 19-item questionnaire based on experiences from the previous 12 months. All subjects completed the MMPI, from which we obtained special scales for Low Self-esteem, Neuroticism, Anxiety Index, Ego Strength, Extroversion, and Sex Problems Scale (I-SP). The subjects were also required to complete the Toronto Alexithymia Scale (TAS-26), and the Eating Attitude Test (EAT- 26), an instrument used for the analysis of eating disorders.

Results

The Sexual Dysfunction Questionnaire (SDQ) displayed excellent internal consistency, with a Cronbach alpha of 0.85. Kendall tau-b ranged from 0.19 to 0.38. The analysis of 19 items was run with Varimax rotation. In these results (Table I), the cumulative percentages show that the first two factors account for 99.58% of the variation. Multiple regression (Table II) highlighted that the personality involved in sexual problems is introverted, passive, or suspicious, with high anxiety, low self-esteem, and a high rate of neuroticism. Logistic regression (Table III) indicated that the probability of finding a sexual dysfunction increases 1.16 times for every point of increase in the score scale. Moreover, when the value of the scale is ≥ 45 the probability of observing sexual issues is 8.16 times greater than when the scale values are < 44. A cut-off score of 45 matches a sensitivity of 88.4% and a specificity of 79.1%.

Conclusions

The psychometric data indicate that the SDQ is a valid, reliable, and satisfactory measure for describing sexual dysfunction in Psychiatric patients (men and women). Moreover, it is a brief self-report inventory, typically requiring 5 min of the patient's time for completion and is well suited for use in both clinical and research settings.

Key words

Psychiatric patients • Sexual dysfunctions • Measurement and assessment • Questionnaire

Riassunto

Obiettivo

L'attività sessuale è una dimensione importante nella qualità della vita. I bisogni psicologici fondamentali dell'individuo sono rappresentati da quattro fattori psicodinamici: attaccamento, autonomia, identità sessuale e autostima. I disturbi sessuali sono comuni nei pazienti psichiatrici e comprendono il desiderio, l'eccitazione, l'orgasmo, dispaurenia e vaginismo. Nonostante gli aspetti positivi della sessualità, le malattie mentali incidono negativamente sulla salute sessuale dell'individuo. In questo settore di ricerca non esistono strumenti per evidenziare la presenza, nei pazienti psichiatrici (uomini e donne), di problemi sessuali e dei tratti di personalità ad essi associati. Per questi motivi, la ricerca era diretta a sviluppare un breve questionario self-report, pratico e semplice, capace di rilevare la presenza di problemi sessuali nei pazienti psichiatrici.

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Metodo
Seguendo la metodologia utilizzata in molte ricerche, sono stati scelti una serie di item. Il questionario risultante, composto da 31 item, è stato somministrato ad un campione di pazienti psichiatrici (149 uomini e 333 donne), per verificare la coerenza interna e la validità. L'analisi fattoriale è stata utilizzata per identificare le variabili di base (o fattori) in grado di spiegare il modello di correlazione tra le variabili osservate. La consistenza interna del questionario è stata valutata mediante l'alfa di Cronbach. Dodici domande sono state eliminate non dimostrando una significatività statistica. Lo strumento finale risulta composto da 19 domande su una scala Likert a 5 punti: sempre, spesso, qualche volta, raramente e mai (vedi Appendice 1). I soggetti hanno compilato il questionario di 19 item sulla base delle esperienze dei 12 mesi precedenti. Tutti i soggetti hanno completato il MMPI, dal quale sono state ottenute le scale speciali che misurano la bassa autostima, il nevroticismo, l'ansia, la forza dell'Io, l'estroversione, e i problemi sessuali (I-SP). Inoltre, hanno anche completato la *Toronto Alexithymia Scale* (TAS-26), e l'*Eating Attitude Test* (EAT-26), strumento utilizzato per analizzare i disturbi alimentari.

Risultati
I risultati dimostrano che il Questionario per le Disfunzioni Sessuali (QDS) presenta un'eccellente consistenza interna, con un alfa di Cronbach di 0,85. Il tau b di Kendall mostra un intervallo di valori tra 0,19-0,38. L'analisi dei 19 item è stato eseguita con rotazione di Varimax. Nei risultati (Tab. I) le percentuali cumulative dimostrano che i primi due fattori spiegano il 99,58% della varianza. I risultati ottenuti con la regressione multipla (Tab. II) evidenziano come la personalità che presenta problemi sessuali è introversa, passiva, sospettosa, con elevati livelli di ansia, scarsa autostima, e un alto tasso di nevroticismo. I risultati ottenuti dalla regressione logistica (Tab. III) indicano che la probabilità di trovare una sessualità disfunzionale aumenta di 1,16 volte per ogni punto di crescita della scala. Inoltre, quando il valore della scala è ≥ 45 la probabilità di osservare problemi sessuali è 8,16 volte maggiore rispetto a valori della scala ≤ 44. Un cut-off di 45 dimostra una sensibilità del 88,4% ed una specificità del 79,1%.

Conclusioni
I dati psicometrici indicano che il QDS è un questionario valido, affidabile e soddisfacente per la descrizione delle disfunzioni sessuali nei pazienti psichiatrici (uomini e donne). Inoltre, è un breve strumento self-report, di solito richiede 5 minuti di tempo per il completamento, ed è adatto per essere utilizzato sia in ambito clinico che di ricerca.

Parole chiave
Pazienti psichiatrici • Disfunzioni sessuali • Misurazione e valutazione • Questionario

Introduction

The sexual dimension is a primary factor used to define and assess an individual's maturity. The World Health Organization defined *Sexual health* as: "The integration of the physical, emotional, intellectual and social aspects of sexual being in ways that are positively enriching and that enhance personality, communication, and love. Every person has a right to receive sexual information and to consider sexual relationships for pleasure as well as for procreation" (WHO Technical Report, Series 572).

Sexuality is an integral part of being human, a complex mix of mental, emotional, and physical signals. Love, affection, and sexual intimacy contribute to healthy relationships and individual well-being. Along with the positive aspects of human sexuality, however, illnesses can also affect an individual's sexual health.

We also must remember that the fundamental psychological needs of an individual are represented by four psychodynamic factors: attachment, autonomy, sexual identity, and self-esteem. These structures usually have a strong interdependence and a stable and mutual relationship. However, the dynamics among them can become dysfunctional. An important consequence is that a problem in one area can grow to involve other areas. Disorders that affect any of these factors can affect a person's physical and emotional health, as well as interpersonal relationships and self-image.

Sexual disorders are common in the general population and include desire, arousal, orgasmic, and pain disorders (dyspareunia and vaginismus). The most important disorders are loss of desire, sexual aversion disorder, anorgasmia, dyspareunia, and vaginismus.

Loss of desire for sexual activity is the most common presenting female sexual dysfunction [1-3]. The American Psychiatric Association's Diagnostic and Statistical Manual of Mental Disorders - DSM-IV [4], which gives a working classification of psychosexual dysfunction, would classify it as hypoactive sexual desire disorder and sexual aversion disorder.

Sexual aversion disorder is an intense aversion to sexual contact or related experiences. The aversion to sex is an extreme form of disorders in the sexual arousal category and is often combined with a reduced interest in making love.

Anorgasmia is the medical term for regular difficulty reaching orgasm after ample sexual stimulation, which causes personal distress. Anorgasmia is actually a common occurrence: 24% of women reported an orgasmic dysfunction [5].

Dyspareunia and vaginismus (sex pain disorders) are two common and extremely frustrating sexual dysfunctions for women. Vaginismus is a sexual disorder that is characterized by the outer third of the vaginal muscles tightening, often painfully. Dyspareunia is painful sexual intercourse [6].

Surveys of the general population in the United States [7] found that many women occasionally have sexual problems and worries, including: *Concerns about sexuality* (6

of 10 women); *Lack of interest in sex* (3 of 10 women); *Sex not always being pleasurable* (2 of 10 women); *Pain with intercourse* (1-2 of 10 women); *Difficulty becoming aroused* (5 of 10 women); *Difficulty reaching orgasm* (5 of 10 women); *Not being able to have an orgasm* (2-3 of 10 women).

A recent study highlighted that erectile dysfunction was reported by 30% of men. Proxy measures of other sexual problems in men revealed a 28% prevalence of dissatisfaction with sex life, a 28% prevalence of problems controlling ejaculation, an 11% prevalence of orgasmic dysfunction, and a 6% prevalence of low sexual desire. Based on validated FSFI scoring, 63% of women were at high risk of sexual dysfunction [8]. Other research surveys reported that 42% of women between the ages of 18 and 59 have some sort of sexual health problem [9].

In addition, the estimated prevalence of sexual dysfunction in the general population is as high as 52% in men and 63% in women [10-12]. Sexual concerns have been reported in 75% of couples seeking marital therapy [13] and are nearly universal in women seeking routine gynecologic care [14].

The data highlight the wide occurrence of sexual problems and their importance in clinical practice. The majority of sexual dysfunctions are mostly related to personality psychological problems. In this field, anxiety disorders [15 16], depression [17 18], neuroticism [19], and low self-esteem [20] represent the most frequent psychopathologic characteristics associated with sexual dysfunction. Furthermore, some studies support a link between alexithymia and sexual dysfunction [21 22]. The associations between personality psychological problems, alexithymia dimensions, and sexual dysfunction will be verified in the research.

Assessment tools for sexual dysfunctions have been developed and validated but are separately specific for men (e.g. erectile dysfunction, and premature ejaculation) or women (e.g. low sexual desire, and sexual arousal disorder), as verified in numerous studies [23-27].

We think that this area of research lacks tools to highlight the presence of sexual problems and the associated personality traits in men and women using the same assessment instrument. A questionnaire that can simultaneously investigate these issues would be a valuable support tool in clinical practice and in broader areas of research.

For these reasons, together with the negative individual and social consequences involved, research was directed to develop a brief, practical, and simple self-reported questionnaire that would address most of the common sexual problems. Brief questionnaires that measure sexual dysfunction may be helpful, particularly when screening larger groups for sexual dysfunction or when conducting research on sexuality as a central aspect within quality of life.

Methods

The sample included 333 women (mean age, 33.1 ± 12.1 years) and 149 men (mean age, 32.9 ± 11.7 years), outpatients at the Department of Psychiatry ASL 5-La Spezia (Italy). The patients were recruited from consecutive admissions to the Department of Psychiatry. In the sample, the diagnoses were: personality disorders (10.4%), anxiety disorders (26.7%), eating disorders (10.4%), depressive disorders (34.6%), psychotic disorders (5.2%), and somatoform disorders (12.7%). All diagnoses were made using the DSM-IV criteria (1994). The inclusion criterion was to have a stable partner relationship for at least 12 months. The exclusion criterion was having a partner with significant sexual problems (e.g., impotence, erectile dysfunction, hypoactive desire, serious sexual aversion).

Following the methodology used in many research studies [24 28-30] and, after an extensive review of the literature, we chose 31 items related to sexual functioning to be tested. This phase was designed also to assess comprehension and to improve the wording of selected items. Two psychiatrists and two clinical psychologists assessed and confirmed its content validity.

The test was administered to verify internal consistency and validity, which would avoid duplication and eliminate questions. We used factor analysis to identify underlying variables (or factors) that explain the pattern of correlation within a set of observed variables. The internal consistency of scale was used to verify whether some elements of scale are not consistent with others. Internal consistency of the questionnaire was assessed by the Cronbach alpha coefficient [31]. According to Nunnelly & Bernstien [32], the alpha value of scale should be > 0.70. We adopted Kendall's tau-b, a nonparametric measure of association based on the number of concordances and discordances in paired observations [33].

At this stage, 12 questions were determined to have no statistical significance (factor analysis, χ^2, Cronbach alpha, Kendall's tau-b). The final instrument had 19 questions on a 5-point Likert scale: Always, Often, Sometimes, Rarely, and Never (see Appendix 1). The total score can vary from 19 (minimum) to 95 points (maximum). Items 7, 9, 10, 11, 12, 13, and 18 have the inverted score in comparison to the "weight" of the answer.

Subjects were required to fill the 19-item questionnaire based on experiences from the previous 12 months. All subjects completed the Minnesota Multiphasic Personality Inventory (MMPI) including the MMPI special scales for Low Self-esteem, Neuroticism, Anxiety Index, Ego Strength, Extroversion [34], and Sex Problems Scale (I-SP) [35]. The subjects were also required to complete the Toronto Alexithymia Scale (TAS-26), an instrument that measures the presence or absence of alexithymia,

a multidimensional construct that describes a constellation of personality features characterized by difficulties in differentiating, identifying, and communicating emotions [36]. Finally, the subjects completed the Eating Attitude Test (EAT- 26) [37], an instrument used for the analysis of eating disorders.
Test-retest reliability was conducted on the sample after a period of 2 months to verify the stability of the SDQ scores. The convergent validity of the questionnaire was determined by comparing the SDQ with the Sex Problems Scale (I-SP). The discriminant validity of the questionnaire was obtained by comparing the SDQ with the EAT-26.

Results

In the overall sample, the SDQ questionnaire revealed that 52.4% of the subjects had sexual problems. The results showed a statistical difference between men and women: women had a higher mean SDQ score of 54.5 compared to 47.9 for men ($F = 33.19$, $p = 0.000000$). The questionnaire had a high test-retest reliability (Pearson's correlation coefficient of 0.76). The correlation between SDQ and Sex Problems Scale (I-SP) confirmed the convergent validity of the questionnaire (Pearson's correlation coefficient of 0.63). The non-significant correlation between measures of different constructs – SDQ *versus* EAT – (Pearson's correlation coefficient of 0.16, $p = 0.18$) provided a verification of the discriminant validity of the questionnaire.
The Factor Loadings after Varimax rotation were: Factor 1 from 0.38 to 0.73 and Factor 2 from 0.31 to 0.64 (for overall data see Appendix 2). Reliability statistics (including inter-item correlation) are presented in Appendix 3. The analysis of 19 items was run with Varimax rotation. The results of Varimax rotation are shown in Table I.
In these results, the first factor retains the information contained in 3.8 of the original variables. The cumulative percentages show that the first two factors account for 99.58% of the variation.
Factor 1 is linked to sexual arousal, whereas Factor 2 is related to sexual desire. The internal consistency of the instrument, measured using Cronbach's alpha, showed a high level of internal reliability (0.851). χ^2 analysis among the items revealed a high statistical significance ($p > 0.000000$), and Kendall's tau-b ranging from 0.19 to 0.38.
The critical value (cut-off) was established at a score of 45 (corresponding to a probability of 0.5 of being in the dysfunctional group), above which the subject has characteristics of sexuality problems, of growing importance, thus increasing the score. In addition, a statistical survey was performed by multiple regression, aimed at highlighting the links of the test scores with other clinical variables (MMPI scales and special indices, TAS). To obtain more reliable results we set the alpha level at 0.005 for all inferential statistical analyses to reduce the risk of inflating the probability of type 1 errors. Following are the statistically significant results of this investigation:
The results obtained by multiple regression (Table II) highlight how the personality traits involved in sexual problems provide a link to a personality that is introverted, passive, or suspicious, with high anxiety, low self-esteem, and a high rate of neuroticism, as verified in previous studies [38].
Logistic regression analysis highlighted other properties of the SDQ scale. The parameter estimates can be used to calculate the probability of a subject with a certain score being in the dysfunctional group or the functional group. Table III shows the results of logistics regression between the presence of sexual problems and the total score on the scale (the first is the numerical scale, the second scale is dichotomous: scoring scale $\leq 44 = 0$; $\geq 45 = 1$).
The first results indicate that the probability of finding a sexual dysfunction increases 1.16 times for every point of increase in the score scale. The second results show that when the value of the scale is ≥ 45 the probability of

TABLE I.
Result of Varimax rotation. *Risultati della rotazione Varimax.*

Factor	Eigen value	Individual Percent	Cumulative Percent
Factor 1	3.802934	58.27	58.27
Factor 2	2.696349	41.31	99.58

TABLE II.
Multiple regression among total score SDQ and MMPI scales, clinical indices, and TAS. *Regressione multipla tra punteggio SDQ, scale MMPI, indici clinici e TAS.*

Variable	T value	Probability level	Power of test
Ma MMPI scale	-3.344	0.0009	0.6988
Mf MMPI scale	-4.765	0.0000	0.9735
Sc MMPI scale	5.373	0.0000	0.9945
Anxiety Index	4.569	0.0000	0.9971
Neuroticism	2.835	0.0048	0.5057
Ego Strength	-6.310	0.0000	0.9997
Extroversion	-3.479	0.0006	0.7414
Low Self-esteem	3.227	0.0013	0.6573
Alexithymia (TAS)	7.016	0.0000	1.0000

TABLE III.
Logistic regression between sexual problems and the SDQ score. *Regressione logistica tra problemi sessuali e punteggio SDQ.*

Parameter	Regression coefficient (B or Beta)	Odds Ratio Exp (B)	Lower 95% Confidence Limit	Upper 95% Confidence Limit
1) Total score SDQ	0.15282	1.16512	1.12958	1.20178
2) SDQ score ≥ 45	2.09992	8.16552	5.07165	13.11467

observing sexual issues is 8.16 times greater than when the scale values are < 45. A cut-off score of 45 matches a sensitivity of 88.4% and a specificity of 79.1%. A final analysis conducted through linear regression reveals other aspects of the two factors. Primarily, Factor 1 and Factor 2 showed a significant correlation (r = 0.3975; p = 0.000000). Sexual arousal (Factor 1) is linked to hopelessness (r = 0.3913, p = 0.000000) and introversion (r = 0.2654, p = 0.000004). Sexual desire (Factor 2) is related to the L-MMPI scale (tendency to create a favourable impression as a response bias, conventional, rigid, moralistic, repression, denial, and lack of insight) (r = 0.2123, p = 0.000009) and to the D-MMPI scale (depression: r = 0.3126, p = 0.000000). Moreover, Factor 2 correlated with factor R-MMPI (r = 0.2925, p = 0.000000), which is related to inhibition or control over the expression of psychopathology. High scores on this scale correlated with depressive tendencies, submissiveness, conformism, and lack of insight [39]. Finally, we found a correlation between Factor 2 and neuroticism (r = 0.4523, p = 0.000000), a construct that includes such traits as nervousness, tenseness, moodiness, and temperament, that is, at the opposite extreme of emotional stability.

Discussion

Qualitative testing revealed adequate comprehension and content validity of the items. The SDQ showed good validity (degree of accuracy with which a test measures what it is designed to measure). Cronbach alpha values > 0.85 indicated excellent internal consistency reliability. Additional analyses (sensitivity, specificity, logistic regression analyses, χ^2 analyses, and Kendall's tau-b) indicated that the scores on the SDQ are highly indicative of the presence (or absence) of sexual dysfunction in clinical samples. For example, women and men with an SDQ score ≥ 45 have a risk eight times higher to have sexual problems than those with scores ≤ 44. In addition, statistical analyses showed that the link between the subjects who reported sexual problems and those identified as such by the test is extremely high (χ^2 =81.88; df = 1; p = 0.000000).
When analyzed by different statistical methods, the two factors were related to specific personality traits linked to the sexual dysfunction. This study's findings are similar to those in the literature (cited above), a similarity that confirms the reliability of the SDQ scale in the measurement of some personality problems involved in sexual dysfunction.
In fact, sexual arousal disorders (Factor 1) correlate with inhibition and introversion (preoccupation with oneself, with reduction of interest in the outside world, wariness, social avoidance, personal and social disaffection). Hypoactive sexual desire disorders (Factor 2) are mainly linked to neuroticism, a core personality trait that refers to one's tendency to experience negative feelings. Moreover, healthy individuals with high levels of neuroticism are at an increased risk for developing depressive and anxiety disorders [40 41].
Based on data obtained through the SDQ, sexual dysfunctions occur frequently in both men and women. The 19-item self-administered scale SDQ shows excellent psychometric properties to assess sexual dysfunctions (convergent validity, discriminant validity, and test-retest reliability). The discriminant validity and the ability of the questionnaire to predict the presence or absence of sexual complaints was good. We found an SDQ total score of 45 to be the optimal cut-off score for differentiating both women and men with and without sexual dysfunction. Moreover, findings of this study were similar to those reported in the literature.
This instrument has face validity, internal consistency, and reliability and shows associations with indicators of psychological and psychopathologic personality traits. Unlike other reliable questionnaires that reveal specific sexual dysfunctions, the SDQ has the ability to verify the presence of sexual problems in the individual. The SDQ addresses all aspects of the sexual response, including the more recently developed classifications [42].
Our research has shown that the questionnaire can also detect a possible change in sexual function (from normal to dysfunctional and otherwise) using the cut-off of 45. The psychometric ability highlighted by the SDQ can be easily used in diagnostic and therapeutic work of the clinician. The statistical correlations highlighted with some personality problems of the individual and links consistently discussed in the literature on the topic largely confirm the reliability of the results obtained in our research.

Conclusions

In this report, we describe the development and validation of a new questionnaire (SDQ). The results of our study have shown that the SDQ has excellent psychometric properties, including high levels of internal consistency and test-retest reliability, and should be a useful instrument for assessing sexual dysfunctions in psychiatric patients. The findings support the use of the instrument both in routine clinical practice and in clinical research, together with its ease of administration and interpretation, and the discretion of questions (increase of "compliance" and reduction of defenses). Moreover, it is a brief self-report inventory, typically requiring 5 min of the patient's time for completion and is well suited for use in both clinical and research settings. Furthermore, its simplicity should facilitate easy cultural adaptation and validation into other languages. The results suggest that the SDQ may be a valuable new tool for evaluating and diagnosing subsets of sexual dysfunctions in psychiatric patients (men and women), particularly with regard to arousal and desire sexual problems. Finally, since the psychometric validation of the questionnaire was done in a psychiatric sample, the instrument can not be used to test the general population.

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APPENDIX 1
Sexual Dysfunction Questionnaire (SDQ). *Questionario sulle Disfunzioni Sessuali (QDS)*.

Gender M F Education Age Date / /

	Always	Often	Sometimes	Rarely	Never
1) I am satisfied with my sex life	1	2	3	4	5
2) I have sexual fantasies	1	2	3	4	5
3) I have sexual dreams	1	2	3	4	5
4) I like to talk about things that concern sexuality	1	2	3	4	5
5) I like to tell jokes involving sex	1	2	3	4	5
6) I feel uninhibited towards sexuality	1	2	3	4	5
7) I like to keep sexuality hidden	5	4	3	2	1
8) I speak about sexuality with my partner	1	2	3	4	5
9) I live sexuality in rigid manner	5	4	3	2	1
10) I would live better without sexuality	5	4	3	2	1
11) My sex life is planned	5	4	3	2	1
12) I avoid situations that arouse my sexuality	5	4	3	2	1
13) Sexuality creates worry for me	5	4	3	2	1
14) I like watching movies or scenes involving sex	1	2	3	4	5
15) I like to talk during sex	1	2	3	4	5
16) I reach orgasm during sex	1	2	3	4	5
17) During sex I "let go"	1	2	3	4	5
18) Sexuality scares me	5	4	3	2	1
19) I like to have an active role in my sexuality	1	2	3	4	5

APPENDIX 2
Factor loadings after Varimax rotation. *Fattori di carico dopo la rotazione Varimax*.

	Factors	
Variables	Factor 1	Factor 2
1	-0.71	
2		-0.69
3		-0.50
4		-0.63
5		-0.40
6	-0.47	
7		-0.31
8	-0.38	-0.36
9	-0.72	
10	-0.60	
11		
12	-0.48	
13	-0.74	
14		-0.64
15		-0.38
16	-0.47	
17	-0.38	
18	-0.73	
19		-0.47
Eigenvalue	3.802	2.696
Variance explained	58.27	41.31

APPENDIX 3
Reliability statistics. *Statistiche di affidabilità*.

	If this Item is omitted		
Variable	Cronbach's Alpha	Item-total correlation	Inter-item correlation
1	0.84	0.56	0.52
2	0.84	0.44	0.43
3	0.85	0.28	0.29
4	0.84	0.52	0.41
5	0.85	0.27	0.20
6	0.84	0.52	0.36
7	0.85	0.24	0.16
8	0.84	0.49	0.35
9	0.83	0.70	0.57
10	0.84	0.62	0.45
11	0.85	0.19	0.14
12	0.84	0.49	0.31
13	0.84	0.49	0.52
14	0.85	0.34	0.34
15	0.84	0.39	0.26
16	0.84	0.46	0.32
17	0.85	0.29	0.20
18	0.84	0.58	0.52
19	0.84	0.54	0.37
Total Cronbach's Alpha = 0,851			