



The Couple Satisfaction Questionnaire: Development and Validation with Two Italian Samples

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ABSTRACT

This paper reports on the development and validation of a questionnaire to measure couple satisfaction in the Italian population, the Couple Satisfaction Questionnaire (CSQ). The CSQ is focused to assess global couple satisfaction, that is the subjective evaluation of one's couple relationship as a whole. *Results:* The exploratory factor analysis (EFA) in the pilot study indicated the existence of two dimensions, one positive and one negative with respect to couple satisfaction. This separation has been interpreted as a methodological artifact due to item phrasing. In fact, the confirmatory factor analysis (CFA) in the validation study supported our hypothesis of one latent factor. The CSQ showed to have good psychometric properties, including high internal consistency, and excellent convergent validity. Discriminant validity referring to social desirability was acceptable. *Conclusion:* The pilot and validation studies' results suggest that the CSQ is a reliable instrument to assess couple satisfaction in couple or family counselling, and encourage further studies of its psychometric properties.

Key words: Couple Satisfaction Questionnaire; Pilot study; Validation study; Italian samples; Couple counselling

Marital or couple satisfaction has often been confused with marital quality, happiness, and adjustment; sometimes, these terms have been used interchangeably (Heyman, Sayers, and Bellack, 1994). Particularly, some scholars considered marital satisfaction overlapping with marital quality (Karney and Bradbury, 1995), which actually involve both positive and negative dimensions (Fincham and Linfield, 1997). For this paper, we prefer to use the terms "couple satisfaction" instead of "marital satisfaction", but in resuming the research on this topic, we adopt the terms that past authors have used. We regard couple satisfaction as a concept distinct from marital quality, embracing a comprehensive definition of this construct as a subjective evaluation of the global nature of one's couple relationship. This is in line with the definition proposed by Scabini (1978), who refers to couple satisfaction as the emotional response to an evaluative processing of one's partner and relationship that depends on the individual's needs, expectations and desires for the relationship (Rosen-Grandon, Myers, and Hattie, 2004). It is a subjective evaluation, which means that satisfaction can be judged by each individual answering to the question: "How much are you satisfied?". Thus it's not a property of the relationship, but a subjective experience and attitude. Couple satisfaction is an indicator of a couple's well-being and stability (i.e. a couple's capacity to maintain a bond over time); while

relation quality may affect couple stability, the opposite isn't true: a relationship, though stable, may be unhappy, with high levels of conflict, and low of satisfaction (Scabini and Iafrate, 2003). Accordingly, couple satisfaction may be conceived as a mental state which mirrors the perception of an individual's costs and benefits: more costs a person inflicts to his/her partner, less he or she is satisfied with his/her relationship. Vice versa, more benefits are perceived by one's partner, more he or she is satisfied with the relationship (Stone and Shackelford, 2007). Changes in the perception of couple satisfaction are related to changes in factors that characterize the relationship: communication, sexual understanding, role definition, affect and its expression, length of the relationship, presence of children, acceptance of the partner's differences from oneself, ability to solve conflicts and to manage family events (Pedon, 2011). In their meta-analysis on gender differences in marital satisfaction Jackson, Miller, Oka, and Henry (2014), after reviewing 173 reports, concluded that, excluding studies with clinical samples, there were no significant gender differences among couples in the general population.

Even if there is a mutual influence between couple satisfaction and life satisfaction or happiness, in the last years the direction of the causation appears stronger when couple satisfaction is the independent variable and life satisfaction or happiness are the dependent ones. For example, Gustavson, Røysamb, Borren, Torvik, and Karevold (2016) found that not satisfying relationships were predictive of lower level of life satisfaction fifteen years later. Thus, it is important to devise reliable and valid measures of couple satisfaction, for the effects it may have on personal and family well-being. In fact, low levels of couple satisfaction were associated with marital instability (Birditt, Brown, Orbuch, and Mcilvane, 2010; Clements, Stanley, and Markman 2004), mental and physical health, and even mortality (Fincham and Beach 2010; Proulx, Helms, and Buehler, 2007; Rohrbaugh, Shoham, V., and Coyne, 2006).

There are two main methods to investigate couple satisfaction: self-reporting and direct observation. Self-reporting is grounded on questionnaires that are filled out separately by each partner and that may be analyzed individually or together. Direct observation is the observation of the couple's interactions by means of a lab reconstruction of life events. In comparison to observation, self-reporting requires much less time, subjects must not be instructed to lab performance, data analysis is easier, but, above all, there is less data alteration because subjects feel more free to express remarks that couldn't come out in direct observation. As a consequence, self-reporting is preferable to direct observation (Carli, Cavanna and Zavattini, 2009).

A review of the international literature showed that there are many self-report instruments that assess couples' relationship outcomes, but not for the Italian population. Jonhson (2001) stated that these instruments can be related to seven base schemas, related to likewise methodological approaches: a) conflict; b) shared values; c) satisfaction; d) interaction; e) love and intimacy; f) attachment/dependency; g) work and homework division.

In this paper we briefly review the questionnaires that specifically measure the construct of couple satisfaction. In the international context the most employed are the Marital Satisfaction Scale (MSS) by Roach, Frazier, and Bowden (1981), the Marital Satisfaction Scale by Bahr, Chappel, and Leigh (1983), the Quality of Marriage Index (QMI; Norton, 1983), the Kansas Marital Satisfaction Scale (KMSS; Schumm, Paff-Bergen, Hatch, Obiorah, Copeland, Meens, and Bugaighis, 1986), and the Relationship Assessment Scale (RAS; Hendrick, 1988). In the Italian

context there are much fewer instrument that assess couple satisfaction: they are the Scala di Soddisfazione Coniugale by Scabini (Marital Satisfaction Scale, Scabini, 1978), and the Scala di Soddisfazione Coniugale by Cusinato (SSC, Marital Satisfaction Scale, Cusinato, 1985).

The Marital Satisfaction Scale (MSS) devised by Roach, Frazier, and Bowden (1981) measures couple satisfaction as a one-dimensional construct, mainly considering an individual's attitudes towards couple relationship, in contrast to objective components concerning the relationship. The Authors defined couple satisfaction as the perception of one's couple relationship along a continuum ranging from a lower to a higher level of well-being, a state changing in time according to important life events. The MMS includes forty-eight items (e.g. "I'm fully satisfied with my marriage") in form of sentences, matched with a 5-point Likert scale ranging from "strongly agree" to "strongly disagree". The 48 items version of the scale was derived from a 70 items scale which, in many studies, showed good reliability and validity (Roach, Frazier, and Bowden, 1981).

The Marital Satisfaction Scale by Bahr, Chappel, and Leigh (1983) is based on a definition of marital satisfaction as a subjective perception of one's marriage considered as whole. It reflects the degree to which needs, desires and expectations are satisfied. The scale is made up of ten items in form of questions (e.g. "If you married again, would you marry the same person?"), except two items which are in form of sentences. Responses are given on a five point likert scale from "yes, surely" to "no, surely". Factor analysis showed the one-dimensionality of the scale, and Cronbach's alpha was .89 for males and .96 for females.

The Quality of Marriage Index (QMI - Norton, 1983) is a self-report tool comprising six items that investigate the subjective evaluation of one's relationship as a whole (e.g. "I enjoy a good couple relationship"). Norton (1983) reported a good validity of his instrument; in fact he found that subjects who obtained high scores share more similar attitudes with their partners and have more stable relationships in comparison with subjects who had low scores. No other psychometric properties are presented.

The Kansas Marital Satisfaction Scale (KMSS – Schumm et al., 1986) is an instrument designed to assess three different aspects of couple satisfaction: marriage as an institution, marital relationship, and one's partner as a spouse. The KMSS includes the following three questions: "How much are you satisfied with your marriage?", "How much are you satisfied with your relationship?", "How much are you satisfied with your partner as a spouse?". Many studies reported good reliability as internal consistency and test-retest, and good criteria validity.

The Relationship Assessment Scale (RAS - Hendrick, 1988) was developed to measure satisfaction in couples of spouses, of cohabitants and, with little changes, of friends. The original tool was made up of seven items – later shortened to five – in form of questions that investigates one's attitudes toward her/his partner or his/her relationship considered as a whole (e.g. "at what degree does your partner satisfy your needs?"). The scale is one-dimensional and showed good reliability as internal consistency, and fairly good criteria validity.

In Italy the Scabini's Marital Satisfaction Scale (Scabini, 1978) is the most employed tool to assess couple satisfaction. The original scale evaluates behaviours, attitudes, and feelings of one's spouse toward her/himself by means of 56 statements (e.g. "My partner try to

understand my point of view”). It assumes that judging the partner’s behaviour toward oneself is always to give an evaluation mediated by one’s needs and expectations, thus it is a judgement about one’s satisfaction with the relationship (Scabini, 1983). An explorative factor analysis indicated that there were four latent factors and items analysis demonstrated the good items’ capacity to discriminate among groups (Scabini, 1978; 1983). The Author herself, and Maino and Aceti (1998) recognized that the scale is more suitable to measure the relationship quality than satisfaction. In fact, from the original scale, Scabini obtained a shorter tool that named Marital Relationship Quality Scale (Scabini and Marta, 1996).

The Marital Satisfaction Scale by Cusinato (1985) derived from the adaptation to the Italian population of the Olson’s ENRICH scales (Fower and Olson, 1993). The scale is made up of eleven items referring to the individual’s satisfaction with some domains of the relationship: personality characteristics, relationships with relatives and friends, responsibility towards children, sexual harmony, management of leisure time, religious orientation, communication, finance management, roles responsibility, communication, and conflict overcoming. An item example is “the relationships with relatives and friends are regular and serene”. Cusinato (1985) refers good internal consistency and test-retest reliability.

The main aim of the studies presented in this paper was to contribute to the Italian research and counselling on couple relationships by the development of a reliable and valid questionnaire to measure couple satisfaction in the Italian population. We designed an instrument which meant to be a specific measure of the subjective satisfaction with one’s couple relationship, not of the objective aspects of the relationship. This measure was conceived to obtain, by means of generic and heterogeneous items, a total score representing the dimension of couple satisfaction as a global one-dimensional construct.

To reach this goal a pilot study was carried out, followed by a validation study.

Initial Item Pool

We decided to get the initial item pool from questionnaires found in the literature which conceived couple satisfaction in its wholeness, giving importance to emotions, rather than to objective features or perceived partner’s characteristics. The instruments were some of those presented in the Introduction: the Marital Satisfaction Scale by Roach, Frazier and Bowden (1981), the Marital Satisfaction Scale by Bahr, Chappel, and Leigh (1983), the Quality Marriage Index (Norton 1983), the Kansas Marital Satisfaction Scale (Schumm et al., 1986), and the Relationship Assessment Scale (Hendrick, 1988). All these instruments demonstrated a good construct validity.

We considered all the items of each questionnaire, except for the Scale by Bhar, Chappel and Leigh (1983), from which we derived only one item (“If I married again, I’d choose to marry the same person”) because the additional items overlapped with those of the other questionnaires. Thus, we got a total of 65 items which were translated in Italian by two translators independently, and after an agreement among them, they were sent to a native English-speaking proof-reader with a very good knowledge of the Italian language for the backwards translation. At last, the three authors reviewed the translations and reached a consensus on any discrepancy. This process led to coincidence with the original items. Five items were removed because they were conceptually recurring. Some items were in form of question: they were changed in sentences. We maintained the distinction between positively

and negatively phrased items to control for acquiescence. Examples of items are: “The relationship with my partner makes me happy” and “My marriage suppresses my personality”. The terms “husband” and “wife” were replaced by “partner”, and “marriage” by “marriage/cohabitation”. This way we obtained a total of sixty items, 36 with a positive meaning and 24 with a negative one. As far as the response mode is concerned, we choose a 7 points Likert scale ranging from 1 (“Very disagree”) to 7 (“Very agree”).

Pilot Study

The pilot study had the aim to verify construct validity and reliability of the first version of the Couple Satisfaction Questionnaire (CSQ). We hypothesized that the latent structure of the CSQ was one-dimensional.

METHOD

Participants and procedure

The data originated from a convenience sample of cohabitant couples living in northeastern Italy. A snowball sampling method was used to recruit participants: They were research assistants' acquaintances who helped recruit other participants. After receiving their informed consent, couples who agreed to participate were given, at their home, two identical self-report anonymous questionnaires, and each respondent was instructed to fill out his/her copy without discussing the questions with her/his partner. The completed questionnaires were collected by research assistants; the final response rate was 95%, yielding a total of 105 couples. The average age of participants was 46 years ($DS = 6.13$) for women and 48 years ($DS = 6.05$) for men; couples were living together on average from 20 years ($DS = 4.25$) and had an average of two children ($DS = 0.44$). Women had a mean number of 13 years of education ($DS = 3.15$) and men of 12.55 ($DS = 3.68$). All participants had a full-time job.

Measure

The first version of the CSQ was administered together with other instruments whose aim goes behind the purpose of the present paper. Instructions reported that our goal was to know participants' opinion about different aspects of her/his couple relationship, referring to emotions and attitudes. Respondents were encouraged to think of his/her partner, but to answer independently from her/him.

Data analysis

To check CSQ's construct validity we performed an exploratory factor analysis (EFA). Many scholars (e.g., Barbaranelli, 2003; Gerbing & Hamilton, 1996; Tinsley & Tinsley, 1987) agree that in pilot studies of new instruments EFA is preferable to confirmatory techniques (CFA), partly because hypothesis testing using CFA constitutes a less stringent test of the hypothesized structure than it does performing EFA. Furthermore, in practice, in the initial stages of investigation, researchers have used EFA to verify test structures, even when the dimensions were defined a priori (Di Blas, 2008). We chose principal-axis extraction, Cattell's scree test to determine the number of factors, and oblique oblmin rotation (Barbaranelli, 2003). For the interpretation of the rotated factor loadings, we considered only items for which the largest factor loading was at least 0.40 and the next largest loading was the half at most (Ercolani e Perugini, 1997). To check for reliability as internal consistency we calculated Cronbach's α and its confidence interval. Data analysis was performed using IBM SPSS Statistics 26.0.

RESULTS

Factor structure (EFA) and reliability

We performed tests to check if the correlation matrix could be analyzed, and results were all satisfactory: the determinant was higher than 0, meaning that the variables were not linearly dependent; the Kayser–Mejer–Olkin score was .93, indicating that the sample was adequate, and the Bartlett sphericity score was statistically significant ($p < .001$), meaning that the correlation matrix was different from the identity matrix (Barbaranelli, 2003). We then conducted a principal-axis analysis, followed by an oblique oblimin rotation. Cattell’s scree test showed a two-factor solution, with the two factors accounting for 39.37% of the final total variance: 34.75% and 4.62%, respectively. Table 1 shows the factor loadings and communalities for the factors extracted from the CSQ.

Table 1: Exploratory Factor Analysis of the Couple Satisfaction Questionnaire (CSQ)

	Factor		Communalities
	1	2	
23. <i>I am satisfied with my marriage (cohabitation)</i> Sono soddisfatta/o del mio matrimonio (convivenza)	.82		.67
38. <i>I get along with my spouse (partner)</i> Vado d'accordo con il/la mio/a partner	.81		.71
46. <i>I consider my marriage (cohabitation) pleasurable</i> Ritengo che il mio matrimonio (convivenza) sia piacevole.	.80		.65
11. <i>My marriage (cohabitation) makes the future look promising</i> Il mio matrimonio (convivenza) promette bene per il futuro	.78		.64
13. <i>My relationship with my spouse (partner) is stable</i> La relazione con il/la mio/a partner è stabile	.77		.56
33. <i>I am satisfied with my spouse/partner as a lifemate</i> Sono soddisfatta/o del/la mio/a partner come coniuge (convivente)	.76		.56
21. <i>My spouse/partner makes me want to do my best</i> Il/la mio/a partner mi stimola a fare del mio meglio	.75		.56
55. <i>I have a good marriage (cohabitation)</i> Godò di un buon matrimonio (convivenza)	.74		.53
15. <i>My relationship with my spouse/partner makes me happy</i> La relazione con il/la mio/a partner mi rende felice	.72		.59
10. <i>I am satisfied with the relationship I have with my spouse/partner</i> Sono soddisfatta/o del rapporto che ho con il/la mio/a partner	.70		.59
36. <i>My spouse/partner satisfies my needs</i> Il/la mio/a partner soddisfa i miei bisogni	.67		.56
20. <i>My spouse/partner and I agree on what are good and right behaviors</i>	.65		.37

Il/la mio/a partner ed io siamo d'accordo su quali siano i comportamenti giusti e corretti		
53. <i>I can always count on my spouse/partner</i>	.64	.42
Posso sempre contare sul/la mio/a partner		
60. <i>If I were to get married (or cohabit) again, I would marry (decide to cohabit) with the same person</i>	.62	.61
Se mi sposassi (decidessi di convivere) di nuovo, sposerei (deciderei di convivere con) la stessa persona		
5. <i>My marriage (cohabitation) is solid</i>	.62	.41
Il mio matrimonio (convivenza) è solido		
28. <i>I feel that my spouse/partner and I are part of a team</i>	.60	.46
Mi sento veramente "parte di una squadra" con il/la mio/a partner		
25. <i>I often have pleasurable conversations with my spouse/partner</i>	.59	.45
Ho spesso delle piacevoli conversazioni con il/la mio/a partner		
47. <i>The sexual part of my relationship is satisfying</i>	.58	.43
Nella mia relazione di coppia la relazione sessuale è soddisfacente		
8. <i>For the most part, my spouse/partner understands what I am feeling</i>	.57	.47
Per la maggior parte delle volte il/la mio/a partner comprende ciò che provo		
50. <i>I consider my marriage (cohabitation) successful until now</i>	.56	.46
Finora ho ottenuto una buona riuscita del mio matrimonio (convivenza).		
6. <i>I feel that I know how to manage my marriage (cohabitation)</i>	.56	.32
Mi sento competente, in grado di gestire il mio matrimonio (convivenza)		
48. <i>Displays of affection by myself and by my spouse/partner are reciprocally satisfying</i>	.55	.42
Le dimostrazioni d'affetto da parte mia e del/la mio/a partner sono reciprocamente soddisfacenti		
3. <i>My marriage (cohabitation) has helped me to achieve my personal goals</i>	.54	.35
Il mio matrimonio (convivenza) mi sostiene nei miei obiettivi personali		
40. <i>My spouse (partner) considers me his/her equal</i>	.53	.40
Il/la mio/a partner mi considera pari a lui/lei		
56. <i>My marriage (cohabitation) has met my initial expectations</i>	.53	.35
Il mio matrimonio (convivenza) corrisponde alle aspettative iniziali		
35. <i>I am well aware of my marriage (cohabitation) situation</i>	.50	.19
Sono ben consapevole della mia situazione matrimoniale (di convivenza)		
16. <i>I am really interested in my spouse/partner</i>	.49	.23
Il/la mio/a partner mi interessa veramente		

31. <i>Sometimes I find myself anticipating with pleasure sexual activity with my spouse/partner.</i>			
Mi capita di pensare in anticipo con piacere all'attività sessuale con il/la mio/a partner	.49		.31
51. <i>My spouse/partner is willing to work to improve our relationship.</i>			
Il/la mio/a partner è disposto/a ad attuare utili miglioramenti nella nostra relazione	.49		.42
30. <i>I know what my spouse/partner expects from me in our relationship</i>			
So ciò che il/la mio/a partner si aspetta da me nella nostra relazione di coppia	.49		.29
26. <i>My relationship with my spouse/partner is better than most</i>			
La mia relazione di coppia è migliore rispetto alla maggior parte delle altre	.47		.14
43. <i>I love my spouse/partner</i>			
Amo il/la mio/a partner	.46		.24
45. <i>I get more personal satisfaction out of my relationship with my spouse/partner than from anything else that I am involved in</i>			
Ricevo dalla mia relazione di coppia più soddisfazioni personali rispetto a tutte le altre cose di cui mi occupo	.44		.20
1. <i>My spouse/partner gives me numerous opportunities to express my opinion</i>			
Il/la mio/a partner mi offre abbastanza occasioni per esprimere le mie opinioni	.43		.27
18. <i>My spouse/partner and I share many interests that are satisfying to both</i>			
Il/la mio/a partner ed io condividiamo molti interessi per entrambi soddisfacenti	.41		.28
41. <i>As time passes I am expecting ever greater satisfaction from my relationship with my spouse/partner</i>			
Col trascorrere del tempo mi aspetto sempre maggior soddisfazione dalla mia relazione di coppia	.30		.07
58. <i>My life would seem empty without my relationship with my spouse/partner</i>			
Senza la mia relazione di coppia la vita mi apparirebbe vuota	.18		.04
9. <i>I feel fossilized in my marriage (cohabitation) R</i>			
Nel mio matrimonio (convivenza) mi sento "fossilizzata/o	.82		.64
R			
19. <i>Sometimes I wish I hadn't gotten married (decided to cohabit) with my spouse/partner R</i>			
A volte preferirei non essermi sposata/o (aver deciso di convivere) con il/la mio/a partner R	-.10	.80	.55
7. <i>My marriage (cohabitation) has suffocated my personality R</i>			
Il mio matrimonio (convivenza) ha "soffocato" la mia personalità R	-.11	.80	.54

4. <i>Every year my marriage (cohabitation) becomes more difficult for me</i> R Il mio matrimonio (convivenza) diventa ogni anno più difficoltoso per me R		.72	.50
2. <i>I am worried about my marriage (cohabitation)</i> R Sono preoccupata/o per il mio matrimonio (convivenza) R		.71	.50
52. <i>My marriage (cohabitation) limits me too much</i> R Il mio matrimonio (convivenza) mi limita troppo R		.65	.51
17. <i>I get discouraged when I try to make my relationship with my spouse/partner work better</i> R Mi scoraggio quando cerco di far funzionare meglio la mia relazione di coppia R		.65	.47
14. <i>My spouse/partner does not listen to what I have to say</i> R Il/la mio/a partner non ascolta ciò che ho da dire R		.63	.48
37. <i>My marriage (cohabitation) is unhappy</i> R Il mio matrimonio (convivenza) è infelice R	.28	.50	.50
39. <i>My current relationship is not what I hope will last forever</i> R La mia attuale relazione di coppia non è quella che spererei durasse per sempre R		.47	.20
22. <i>My relationship with my spouse/partner has a negative effect on my health</i> R La mia relazione di coppia ha un'influenza negativa sulla mia salute R	.36	.45	.53
32. <i>My spouse/partner is disrespectful towards me</i> R Il/la mio/a partner manca di rispetto nei miei confronti R	.23	.44	.36
27. <i>My spouse/partner has unrealistic expectations as far as my free time is concerned</i> R Il/la mio/a partner ha pretese ingiuste riguardo al mio tempo libero R		.43	.24
44. <i>My spouse/partner could make things easier for me if he/she wanted to</i> R Il/la mio/a partner potrebbe rendermi le cose più facili. se ci tenesse R	.30	.42	.42
42. <i>My spouse/partner is unreasonable when he/she argues with me</i> R Il/la mio/a partner si comporta in modo irragionevole quando deve discutere con me R	.16	.41	.28
24. <i>I have to look outside of my relationship with my spouse/partner for the things that make my life interesting and valuable</i> R Devo cercare al di fuori della mia relazione di coppia le cose che danno interesse e valore alla vita R	.17	.38	.25
57. <i>My spouse makes me irritable and nervous</i> R Il/la mio/a partner mi rende insofferente e nervosa/o R	.35	.38	.43
54. <i>My spouse/partner and I don't agree about my free time</i> R Nella mia relazione di coppia ci sono disaccordi riguardanti il tempo libero R		.35	.14

12. <i>Sometimes I feel upset or irritated about things that happen in my relationship with my spouse/partner</i> R	.13	.35	.20
Mi capita di sentirmi turbata/o, irritata/o per delle cose che accadono nella mia relazione di coppia R			
34. <i>It is not easy for me to confide in my spouse/partner</i> R	.23	.34	.26
Ho delle difficoltà a confidarmi con il/la mio/a partner R			
49. <i>There are difficulties and problems in my marriage (cohabitation)</i> R	.28	.28	.25
Nel mio matrimonio (convivenza) ci sono difficoltà e problemi R			
59. <i>I fear that I will eventually separate from my spouse/partner</i> R	-.16	-.24	.13
Temo che mi capiti di separarmi dal/la mio/a partner R			
29. <i>My spouse/partner and I do not share the same philosophy on life</i> R		.19	.29
Il/la mio/a partner ed io non condividiamo la stessa filosofia di vita R			

Note. N = 210; in bold loadings split between the two factors or $\leq .40$; void cells contained loadings $\leq .10$; R= reverse-coded

Considering only items with factor loadings $> .40$ and that didn't split between the two factors, the first factor included 35 items all positively phrased, while on the second factor loaded 11 items negatively phrased. This result support findings from previous studies (Calore, 2018; Gusmeroli, 2001; Roselli, 2001). The partition between a positive dimension and a negative one, may be ascribed to item phrasing to avoid acquiescence and may be considered a methodological artifact. Thus, we considered the CSQ as one-dimensional and decided to compute only one score of couple satisfaction.

As far as reliability is concerned, Cronbach's α was .96 (confidence interval: .95 - .97) which indicate an excellent internal consistency of the tool (DeVellis, 2012).

The results of this pilot study of CSQ' psychometric characteristics were acceptable: the instrument showed a very good reliability and also construct validity, even if the items were artfully split between a positive factor and a negative one.

Validation Study

The present study received the approval of Padua University's Psychological Ethical Committee (No. 1550/2015). It had the main goal of analysing again the dimensional structure of the CSQ, and to verify its convergent and discriminant validity by correlating the CSQ score with scores to the following instruments: the subscale Dyadic Consent of the Italian adaptation of the Dyadic Adjustment Scale (Spanier, 1976; Gentili, Contreas, Cassaniti and D'Arista, 2001), the Italian adaptation of the Satisfaction with Life Scale (SWLS, Diener, Emmons, Larsen, and Griffin, 1985; Cusinato and Colesso, 2007) and the Italian brief version of the Balanced Inventory of Desirable Responding (BIDR 6; Paulhus, 1991; Bobbio and Manganelli, 2011). This last measure assesses two different aspects of social desirability responding. One is the Self-Deceptive Enhancement (SDE) which refers to the unconscious tendency to respond to self-report questionnaires honestly, but positively biased, with the purpose to preserve self-esteem. Instead, the Impression Management (IM) concerns the usual and conscious exhibition of a positive public self-image; this tendency is related to faking and deceiving others.

As far as convergent validity is concerned, we expected a positive correlation between couple satisfaction and satisfaction with life, as supported by previous research: an individual who is satisfied with his couple relationship, is more likely satisfied with his/her life and vice versa. We also hypothesized a positive correlation between couple satisfaction and dyadic consent: a couple who agree on various aspects of common life is more easily satisfied with its relationship and vice versa. Relating to discriminant validity, we expected different correlations of couple satisfaction with the two scales of the BIDR 6. If the CSQ is valid, it shouldn't correlate with impression management, but it could have a mild positive correlation with self-deceptive enhancement, because a person who enjoy a good couple relationship more likely see him/herself in a positive way.

Method

Participants and procedure

Participants were 100 married or cohabitant dual-earners couples, living in northeastern Italy. They were recruited by means of a snowball sampling.

The mean age of women was 43.41 years ($DS = 6.09$), and men's 47.25 years ($DS = 6.62$). Couples were married or cohabitant on average from 18.28 years ($DS = 3.47$) and had an average of two children ($DS = 1.04$). Women had a mean number of 14.55 years of education ($DS = 3.39$) and men of 12.90 ($DS = 3.98$). After receiving participants' informed consent, the researchers sent them, by e-mail, a link by which they could fill out the questionnaires; all participants completed them.

Measures

A booklet that included four questionnaires was sent to participants.

Couple Satisfaction Questionnaire (CSQ). The 46-item second version of the CSQ obtained in the pilot study was the instrument measuring couple satisfaction. Example of items are "My marriage/cohabitation is sound" and "I'm worried about my marriage/cohabitation". To conform to the other questionnaires' response mode, the 7 point Likert scale was shortened to 5, from 1 ("Very disagree") to 5 ("Very agree").

Satisfaction with Life Scale (SWLS; Cusinato e Colesso, 2007). It is a five-item tool that investigates individuals' self-evaluation of global satisfaction with their life, in comparison with self-determined criteria. An example of item is "My life conditions are excellent". The response mode is a 5 item Likert scale, ranging from 1 ("Very disagree") to 5 ("Very agree"). In the present study Cronbach's alpha was .87.

Dyadic Consent subscale (Gentili, Contreas, Cassaniti and D'Arista, 2001). It requires participants to express how much they agree with their partners about twelve situations, e.g. "housework". Responses are given on a 5 point Likert scale, from 1 ("Always disagree") to 5 ("Always agree"). In this study subscale Cronbach's alpha was .91.

Brief version of the Balanced Inventory of Desirable Responding (BIDR 6; Bobbio and Manganelli, 2011). This tool assesses, by sixteen items, two facets of social desirability responding: Self-Deceptive Enhancement (SDE) and Impression Management (IM) (see Introduction). Ten items are positively phrased with respect to social desirability (e.g. "I'm full

in control of my own fate”) and six items are negatively phrased (e.g. “I sometime tell lies, if I have to”). Each scale includes eight items. The response mode is a 5 point Likert scale, ranging from 1 (“Very disagree”) to 5 (“Very agree”). High scores correspond to high social desirable responding. For SDE $\alpha = .77$ and for IM $\alpha = .73$.

The anonymous booklet’s instructions presented the research as a study on family development and adult personality, invited subjects to freely participate and to respond independently from one’s partner.

DATA ANALYSIS

In this study, to analyze the latent structure of the CSQ, we run a CFA, assuming that the CSQ structure was one-dimensional. We compared two different CFA models for the CSQ structure, a one-factor model and a two-factor model. All models were fitted in LISREL 8.80 using Robust Unweighted Least Squares estimation for ordinal variables. To evaluate the goodness of fit of the models, several indices were taken into consideration (Schermelleh-Engel, Moosbrugger, and Müller, 2003): values of χ^2 statistic that are less than 3 times degree of freedom and less than 2 times degree of freedom are associated with acceptable and good fit, respectively (Schermelleh-Engel et al. 2003); values of the comparative fit index (CFI) and the non-normed fit index (NNFI) that are $>.95$ and $>.97$, are associated with acceptable and good fit, respectively (Schermelleh-Engel et al. 2003); values of the root mean square error of approximation (RMSEA) that are $<.05$ can be considered as a good fit, whereas values between $.05$ and $.08$ are thought to be an adequate fit (Schermelleh-Engel et al. 2003). To assess model fit of nested models, as in our case for the one-factor and the two-factors models, χ^2 difference test was used. Significant results for the χ^2 difference test indicate that the model with smaller χ^2 has a statistically better fit. This test, however, with large samples tends to yield a significant test result for very trivial differences. For this reason, the Δ CFI criterion (Cheung and Rensvold, 2002) was adopted. As recommended by Cheung and Rensvold (2002), if the difference in the CFIs between two nested models (Δ CFI) is smaller than $|.01|$, the hypothesis of no difference in fit between the two competing models should not be rejected.

Reliability as internal consistency was checked by means of Cronbach’s alpha and relative confidence interval. Pearson’s linear correlation coefficients were computed to examine convergent and discriminant validity. We analyzed the data using IBM SPSS Statistics 26.0 and LISREL 8.80.

Results

Factor structure (CFA)

Fit indices of the one-factor model and the two-factors model attest a good fit of both models to the data (Table2). The χ^2 difference between the two models is significant ($\chi^2=198.82$ $df=1$ $p<.001$), but Δ CFI is less than $|.01|$ (Δ CFI= 0.003), consequently the best CFA model is the one-factor model. These results support that CSQ is one-dimensional.

Table 2
Fit indices of CFA models for the CSQ

Model	χ^2	<i>df</i>	χ^2 / df	<i>CFI</i>	<i>NNFI</i>	<i>RMSEA</i>
1-factor model	1867.75	989	1.89	.987	.986	.067
2-factors model	1668.93	988	1.69	.990	.989	.059

Note. CFA = Confirmatory factor analysis; CSQ = Couple Satisfaction Questionnaire

Descriptive Statistics of the CSQ

We calculated the score of couple satisfaction, by taking the mean of the 46 item scores. Descriptive statistics and internal consistency of the CSQ are presented in Table 3.

Table 3
Descriptive statistics and reliability of the CSQ

	N. items	Mean	Standard Deviation	Skewness	Kurtosis	Reliability	95% C.I	
							Lower bound	Upper Bound
Couple Satisfaction	46	4.10	.71	-1.16	1.03	.98	.97	.98

Note. *N* = 200

Table 3 shows that the mean score, on the scale 1-5, is quite high, being above the midpoint of the scale (3). The distribution of the CSQ score was negatively skewed, meaning that positive values of the response scale were the most frequent. The dimension of couple satisfaction had an excellent reliability as internal consistency, with $\alpha = .978$ (DeVellis, 2012).

At an explorative level, we compared women's and men's scores on the CSQ, by mean of a *Student t-test*. Women mean score ($M = 4.02$; $sd = .77$) didn't significantly differed from men's ($M = 4.16$; $sd = .61$) ($t(198) = -1.46$, $p = .146$). This result is in line with findings from previous research (Jackson et al., 2014).

Correlations

To test convergent validity, we calculated Pearson's linear correlations between the CSQ scores and scores obtained to the Dyadic Consent subscale (Gentili, Contreas, Cassaniti and D'Arista, 2001) and to the Satisfaction with Life Scale (Cusinato e Colesso, 2007). To check discriminant validity with respect to social desirable responding, correlations were computed with the Italian adaptation of a brief version of the Balanced Inventory of Desirable Responding (Bobbio and Manganelli, 2011) which includes two subscales: Self-Deceptive Enhancement and Impression Management. Table 4 presents these correlations.

Table 4
Correlations (Pearson's r) of Couple Satisfaction with Dyadic consent, Life satisfaction, Self-deceptive enhancement and Impression management

	Dyadic consent	Life satisfaction	Self-deceptive enhancement	Impression management
Couple satisfaction	.79***	.71***	.23**	.16*

Note. $N = 200$; * $p < .05$; ** $p < .01$; *** $p < .001$

Table 4 shows that couple satisfaction scores were strongly correlated with the dyadic consent and the life satisfaction scores, as expected. They were moderately correlated with self-enhancement and weakly with impression management.

DISCUSSION

In this paper we presented the development of a tool to assess subjective aspects of global couple satisfaction in the Italian population. To possess a reliable and valid instrument is important because couple satisfaction affects personal and family well-being and it is associated with life satisfaction, mental and physical health, and even with mortality (Fincham and Beach 2010; Proulx et al. 2007; Rohrbaugh et al. 2006). Results demonstrated the satisfactory psychometric properties of the SCQ in a number of ways.

The pilot study mainly sought to assess the CSQ dimensionality and its reliability, as internal consistency. The validation study, besides analysing again the dimensional structure and reliability, checked the convergent and discriminant validity of the CSQ.

We hypothesized one latent factor in the structure of the CSQ. In both studies, construct validity of the CSQ was substantially supported, even if the from the EFA of the pilot study two factors emerged, including respectively positive and negative statements. This separation is likely a methodological artifact due to phrasing. In fact, the best model of the CFA in the validation study showed a one-dimensional structure, as we expected. This structure should be replicated in future research.

The CSQ is also a reliable instrument, being the Cronbach's alpha very high.

Correlations support a good convergent validity of the CSQ, with strong coefficients both with the dyadic consent and with life satisfaction, as we hypothesized. Who enjoy a good couple relationship has higher levels of life satisfaction and more likely agree with his/her partner on different aspects of common life. Of course also the opposite influence could be true: only longitudinal studies could disentangle the question of causality.

Correlations showed a mild influence of social desirability on responses to the CSQ. As hypothesized, the relationship is stronger with self-deceptive enhancement, the unconscious attitude to see oneself in a favorable way. It may be that a positive image of oneself is a part of

a satisfying couple relationships. Instead, the correlation of the CSQ with impression management, the tendency to fake in order to offer a positive image of oneself, is weak, even if statistically significant. Mean CSQ score is well above the scale midpoint, and is negatively skewed. Women and men had the same level of couple satisfaction, as reported by previous research.

The study's results allow to adopt the CSQ as a reliable tool in couple or family counselling, keeping in mind the little influence of social desirability on responding.

A limit of this study is that it utilized a non-probabilistic regional sample, which reduces its external validity and thus the possibility that its results can be generalized beyond the sampling framework. Other validation studies are necessary, with different samples. It also would be interesting, in future research on the psychometric qualities of the CSQ, to check external validity via opposite-group comparisons, comparing the scores of couples who are facing a crisis and refer to a counselor for their relationship, with scores of couples who are not consulting a professional. If the CSQ possesses good external validity, then we would expect significant differences in such comparison, i.e. higher levels of couple satisfaction among couples who are not in crisis.

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