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The Italian Version of the Career Factors Inventory

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Abstract

This study attempted to examine the validity of the Italian version of the Career Factors Inventory (CFI), a psychometric tool widely used in the assessment of cognitive and personal–emotional dimensions of career indecision, among a sample of 2,060 Italian students attending high school and university. Recurring to both exploratory and confirmatory factor analyses, the original four-factor structure was confirmed and returned, in line with the literature, satisfactory reliability indices; moreover, CFI subscales showed intercorrelations consistent with previous studies, albeit lower in some cases. Subsequently, convergent validity between the four CFI subscales and other scales via zero-order correlation was tested, confirming previous evidence except for need for career information. In conclusion, consistent with previous studies, the Italian version of the CFI showed to be a valid and reliable instrument for the evaluation of dimensions of career indecision.

Keywords

career factors inventory, career indecision, career decision making, indecisiveness, anxiety, career counseling, vocational guidance

Nowadays, the growing rate of change characterizing organizations, professions, and careers considerably affects the quantity and quality of occupational transitions that individuals undergo during their working life (Gati, Krausz, & Osipow, 1996) and poses a series of questions and challenges to scholars and practitioners aiming to help people requiring vocational support (Savickas et al., 2010). These dynamics, mainly dependent on the socioeconomic scenario and the labor market, impose increasingly difficult cognitive and emotional challenges to individuals who have to make sound vocational choices and manage own careers (Lo Presti, 2009). Thus, the quality of career decisions assumes considerable importance and puts the individual in front of decision-making processes that are complex, recursive, and unpredictable in their consequences.

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Many vocational methodologies, such as skills assessment, counseling, guidance, and so on are development processes that foster individual ability to make targeted and satisfactory career choices, to design plans for self-empowerment, to actively intervene in the improvement of own meta competencies, and to develop a realistic and critical vision of own strengths and weaknesses (Di Fabio, 2009). In particular, career counseling, as a specific approach and technique, can be defined as a cognitive-based approach in which logical processes are employed in collecting, sifting, and evaluating relevant career and personal information (Osipow, 1999, p. 148). Thus, the role of career counselors is to support and facilitate decision making regarding career choices of high school students, college students, and adults (Germeijs & De Boeck, 2002, p. 113).

Crucial to our contribution is the term *career indecision,* which is used to identify the problems encountered during a decision-making process related to own career (Germeijs & De Boeck, 2003). It is a multidimensional construct (Hartman, Fuqua, & Jenkins, 1986) and the categories of individuals who are undecided about the potential professional alternatives are wide and varied (e.g., Larson, Heppner, Ham, & Dugan, 1988); for these reasons, scholars' efforts have turned to the identification and systematization of the underlying factors of career indecision (e.g., Callanan & Greenhaus, 1992). Specifically, recent studies have focused on the differences between indecision and indecisiveness (Di Fabio, Palazzeschi, Asulin-Peretz, & Gati, 2013; Germeijs & De Boeck, 2002).

According to Osipow (1999, p. 147), *indecision* is a normal stage in the development process; it is a state that "comes and goes as a decision is made, is implemented, grows obsolete, and eventually leads to the need to make a new decision." Instead, *indecisiveness* is a generalized trait, a state, that a person experiences each time when faced with a decision of any kind. Some scholars define it as chronic or generalized indecision, reflected not only in one domain but across several life domains (Saka, Gati, & Kelly, 2008). Moreover, Santos and Coimbra (2000) distinguished between a *normal* or *developmental indecision* defined as a phase in which the individual explores own vocational alternatives and a *chronic* or *generalized indecision* that reflects the difficulty of the individual in the decision-making process in every aspect of own life. According to Feldman (2003), developmental indecision occurs due to lack of information and usually disappears when the persons acquire more information about themselves and receive feedback from own social environment. On the other hand, chronic indecision means that the individual is in a constant state of anxiety and fear about the possibility of personal involvement and, thus, it tends to stabilize as a trait of personality. The distinction between career indecision and indecisiveness is fundamental to counselors, because while counselors can cope with the former through standard career interventions or obtaining relevant career and personal information, the latter requires additional attention for dispositional variables (Germeijs & De Boeck, 2002; see also Martincin & Stead, 2014; Oztemel, 2014) as well as other factors such as family relationships (Lo Cascio, Guzzo, Pace, & Pace, 2013) and so on. It follows that the differential diagnosis of the problems related to career indecision becomes necessary in order to increase the effectiveness of career counseling.

The Career Factors Inventory

Several psychometric instruments have been developed (Betz, Klein, & Taylor, 1996; Gati et al., 1996) and validated in Italy (Lo Presti et al., 2013; Savadori, Vicenzi, & Rumiati, 2000) in order to provide a valid support in the investigation of factors related to career decision-making processes. The *Career Factors Inventory* (CFI; Chartrand, Robbins, Morrill, & Boggs, 1990) is a psychometric tool that assesses career indecision subtypes, in contrast to other instruments which return a global measure of undecidedness (e.g., Osipow, 1987) and which can be useful for the evaluation of adaptive behaviors inherent occupational choices. The CFI is a self-report questionnaire that consists of 21 items grouped into four different subscales; the first two subscales assess personal and emotional

antecedents of career indecision, while the third and fourth scales provide an estimate of cognitive and informational antecedents of career indecision.

Career choice anxiety concerns the level of perceived and expressed anxiety related to the career decision-making process. This factor was selected because anxiety is one of the major antecedents of career indecision and several studies showed positive associations between levels of perceived anxiety and impaired decision-making process (e.g., Germeijs, Verschueren, & Soenens, 2006).

Generalized indecisiveness refers to the inability of an individual to make decisions even when there are conditions for such to occur. This factor was chosen because decision-making skills play a vital role in decision-making career (Rowland, 2004) and because the chronically undecided individuals tend to take more time to choose between different alternatives, use less effective decisional strategies, require more cognitive effort in decision making, feel more threatened by ambiguous situations, and so on (Di Fabio et al., 2013).

Need for career information expresses the need of the individual to acquire information and factual data in terms of the different professions. This factor was selected as representative of one of the main categories of the problems underlying discriminative professional choice (Gati et al., 1996) and because it referred to as one of the first areas of treatment in case of career indecision (Osipow, 1999).

Need for Self-Knowledge assesses the person's needs for self-definition and discovery of the information about personal image and identity. Low scores on this subscale can be determined by a distorted perception of own identity and a lack of awareness of personal qualities. This factor was chosen because it is present in different theoretical models, including Holland's (Holland, 1997).

Initially, the CFI provided a fifth subscale called *Self-esteem*; this subscale was later deleted because of confirmatory factor analysis (CFA). The final four-factor model showed a high internal consistency. The reliability of the subscales ranged between .73 and .86, while test–retest estimates were between .79 and .84 (Dickinson & Tokar, 2004). On the basis of the study by Chartrand and colleagues (1990), the estimated correlation between the informational and cognitive factors was .65, while the estimated correlation between the personal–emotional factors was .53.

The effectiveness of the CFI in the differential diagnosis of the factors related to career indecision has been proven by several empirical studies. Chartrand and Robbins (1991) and Lewis and Savickas (1995) successfully used the CFI in the prediction of career choices of groups of college students. Peterson, Sampson, and Reardon (1991) used the CFI for the estimation of professional problem-solving strategies. Cohen, Chartrand, and Jowdy (1995) associated the scores obtained from the CFI with the ones obtained from the Ego Development Scale (Ochse & Plug, 1986), a questionnaire that measures the five stages of the psychosocial identity's development. Germeijs and colleagues (2006), using the CFI's career choice anxiety subscale, tested the relevance of indecisiveness on the educational choices of a high school sample. Finally, Kelly and Lee (2002) showed that the CFI is one of the most effective measures for the evaluation of most of the problems related to career indecision, consistent also with Dickinson and Tokar (2004), who explored the psychometric characteristics of the instrument, confirming its validity and four-factor structure. In conclusion, consistent with the previous studies, it is possible to argue that the CFI can be used in different applicative contexts such as the planning and evaluation of school or professional training paths and the intervention on the career decision-making process biases.

On the basis of these findings, the aim of this study is to further contribute to the Italian version of the CFI, given that, to date, only one study has used the CFI in the Italian context (Lo Presti & Drammis, 2012). That study recurred to a sample of high school students, while our intention was to sample high school and both bachelor and master university students. In particular, our sample will be split in order to examine the CFI factorial structure with both exploratory factor analysis (EFA) and, then, CFA. Finally, convergent validity of the four CFI subscales will be tested, calculating their correlations with other widely used convergent scales.

Method

Participants

A total of 2,100 self-report paper-and-pencil questionnaires were distributed and 2,089 emerged to be valid for research purposes (response rate 99.4%). After statistical analyses for identifying multivariate outliers, a final sample of 2,060 Italian students was retained. A total of 806 (39.1%) men and 1,254 (60.9%) women were involved, while mean age was 20.81 years ($SD = 3.42$). A total of 870 (42.2%) students attended the last year of high school, while 1,190 (57.8%) students attended university, both at bachelor's ($n = 718$) and at master's ($n = 472$) level.

Two different subsamples were randomly extracted for subsequent analyses. A first stratified random sample (in terms of gender and high school/university level) consisted of 1,000 students, that is, 500 men and 500 women, attending high school ($n = 400$, 40%) and university courses ($n = 600$, 60%). Mean age was 20.92 ($SD = 3.65$). The second subsample comprised the remaining 1,060 students, that is, 306 (28.9%) were men and 754 (71.1%) were women; 470 (44.3%) students attended high school while 590 (55.7%) attended university courses. Mean age was 20.7 ($SD = 3.17$).

Measures

CFI. As it has been widely discussed earlier, CFI (Chartrand et al., 1990; Italian translation by Lo Presti & Drammis, 2012) is a tool that assesses several aspects of career indecision and consists of the following subscales. *Career choice anxiety* is assessed through a semantic differential whose main question is "When I think about actually deciding for sure what I want my career to be I feel" followed by six different pairs of antithetical terms (e.g., "tense" vs. "relaxed") with a 5-point Likert-type scale; range of scores goes from a minimum of 5 to a maximum of 30. *Generalized Indecisiveness* was evaluated using two semantic differentials, in the first case through the question "For me, decision making seems" followed by three couples of antithetical terms (e.g., "hard" vs. "easy"), and in the second case through the question "While making most decisions I am" followed by two antithetical pairs (e.g., "sure" vs. "uncertain"); the range of scores goes from a minimum of 5 to a maximum of 25 (through a 5-point Likert-type scale). The remaining two subscales share a common main question which is "Before choosing or entering a particular career I still need to . . . "; *Need for career information* (e.g., " . . . talk to people in one or more various occupations") was evaluated through 6 items (scores' range between 5 and 30), while *Need for self-knowledge* (e.g., " . . . need to attempt to answer "who am I?") through four ones (scores' range between 5 and 20), both with a 5-point Likert-type scale (from "completely disagree" to "completely agree"). Cronbach's αs for each of the four subscales will be calculated after testing the factorial structure of the questionnaire (see Results section). Vidal-Brown and Thompson (2001) evaluated its concurrent and convergent validity, among college students, with other questionnaires, finding that career choice anxiety subscales positively correlated with career decision-making anxiety and career commitment anxiety and negatively correlated with career choice certainty and vocational identity. As regards to generalized indecisiveness, the authors found significant correlations with decision-making confusion and anxiety. Finally, significant associations between need for career information subscale and other measures concerning occupational information have been found.

Trait anxiety. Trait anxiety was assessed via the State-Trait Anxiety Scale (trait anxiety subscale, Spielberger, Gorsuch, Lushene, Vagg, & Jacobs, 1983; Italian version by Pedrabissi & Santinello, 1989) which contains 20 items (e.g., "I feel as if I should cry") with 4-point Likert-type scale (from "almost never" to "almost always") and with a Cronbach's α of .88. The range of scores goes from a minimum of 20 to a maximum of 80.

Indecisiveness. This scale consists of 22 items (e.g., "I delay deciding") with a 7-point Likert-type scale (from "completely disagree" to "completely agree"). Cronbach's α was equal to .85. It should be pointed out that, counterintuitively, higher scores on this scale indicate high decision-making skills and then low indecisiveness. The range of scores goes from a minimum of 0 to a maximum of 132 (Germeijs & De Boeck, 2002).

Lack of information about self. This is a subscale of the questionnaire about the difficulties in career decision making (Savadori et al., 2000), being, in turn, the Italian adaptation of the Career Decision-Making Difficulties Questionnaire (CDDQ) by Gati and colleagues (1996). It consists of 8 items (e.g., "I could not list my true abilities") through a 5-point Likert-type scale (from "strongly disagree" to "completely agree"), while its Cronbach's α was equal to .74. The range of scores goes from a minimum of 8 to a maximum of 40.

Lack of information about occupations. Even in this case, it is a subscale of the questionnaire by Savadori and colleagues (2000). It contains 4 items (e.g., "I do not know the types of professions offered by the labor market"), through the same Likert-type scale of the previous subscale; the Cronbach's α was equal to .65. The range of scores goes from a minimum of 4 to a maximum of 20.

The scales not available in Italian (i.e., CFI and Indecisiveness Scale) were first translated from English to Italian by one experienced native speaker; then, the obtained translation was retranslated by another translator from Italian to English and finally compared with the original English items to verify the adequacy of the translation; some difference was found between some original English items and its retranslated version, but both translators agreed that they were synonyms and that their meanings' differences were negligible. Subsequently, a preliminary pilot study was carried out among a haphazard sample ($n = 129$) of high school and university students, returning acceptable indices of internal consistency.

Procedure

Students participated on a voluntary basis, during normal classes. Previously trained assessors, obtained the availability by school principals and university faculty, briefly explained the research aims and read the questionnaire's instructions. During the questionnaire filling (which took approximately 30 minutes), assessors were constantly available in case of difficulties or doubts. Students had the possibility (as an incentive), specifying it on the questionnaire, that their responses could be utilized for a subsequent free career counseling session at the University Vocational Centre (Centro Orientamento e Placement).

Data Analysis

Given the aims of the study, particular attention was paid in identifying univariate and multivariate outliers. Mahalanobis distance method was used (one cycle of analysis) and resulted in the expunging of 29 cases that showed multivariate distributions concerning their responses to the CFI. The presence of univariate outliers was subsequently tested on the two subsamples through kurtosis and skewness indices but, given that all values were lower that the suggested cutoff of ± 1.96 (Schaufeli, Bakker, & Salanova, 2006), no more removals were operated.

EFA on the CFI was carried out through Principal Component extraction method and Oblimin oblique rotation (given the postulated intercorrelations between its factors).

Subsequent CFA on the CFI was carried out through maximum likelihood estimation method. Different factorial models were compared, first of all, by means of χ^2 and degrees of freedom (despite highly negatively affected by sample size) and recurring to the following goodness-of-fit

indices: root mean square error of approximation (RMSEA; Steiger, 1990) for which scores lower than .05 mean excellent fit and scores between .05 and .08 mean good fit, CFI (Bentler, 1990), and nonnormed fit index (NNFI; Tucker & Lewis, 1973) for which scores higher than .90 mean good fit. Such goodness-of-fit indices were chosen, given their lower sensitivity to sample size.

Finally, convergent validity of CFI subscales in relation to other scales was tested through zero-order correlations between scales' total scores, expecting statistically significant associations between couples of convergent scales.

Results

EFA, carried out on the first subsample ($n = 1{,}000$), returned four factors that accounted for 49.7% of variance, with Factors 1–4 accounting for 21.22%, 13.05%, 8.47%, and 6.96% of the variance, respectively. All factors included the same items than the original CFI with loadings greater than .40, respectively. Table 1 depicts the EFA pattern matrix with factor loadings (and CFA parameter estimates, see further).

Given that EFA replicated the theorized factorial structure, a CFA was carried out on the second subsample ($n = 1{,}060$) to contrast the original four-factor solution (M1) with other factorial solutions: a one-factor solution (M2; encompassing all 21 items) and a two-factor solution (M3) with the first factor including career choice anxiety and generalized indecisiveness items, and the second one including items from need for career information and need for self-knowledge subscales. Table 2 depicts goodness-of-fit indices related to the three tested factorial solutions.

The original four-factor solution showed better goodness-of-fit indices than the other two competing modes. The RMSEA index showed an acceptable value of .061, while CFI (.96) and NNFI (.95) showed excellent values. As for factor loadings, items showed satisfactory values except for item 13, which showed a $\lambda = .25$.

On the basis of the EFA and CFA results, the four-factor solution confirmed to be consistent with the original solution by Chartrand and colleagues (1990). CFA parameter estimates can be found in Table 1. Thus, Cronbach's α coefficients were calculated and compared with Chartrand and colleagues' ones (Table 3).

Compared to Chartrand and colleagues' (1990) reliability scores, subscales from the present sample showed similar α coefficients for career choice anxiety, generalized indecisiveness, and need for self-knowledge, while for need for career information, α fell below the acceptable threshold of .70 and was lower than Chartrand and colleagues'.

Zero-order correlations between subscales found by Chartrand and colleagues (1990) and Subsample 2 were calculated (Table 4). Zero-order correlations between CFI subscales were all positive and varied between .55 (between career choice anxiety and generalized indecisiveness) and .11 (between generalized indecisiveness and need for career information). In general, intercorrelations between subscales in the present sample were lower than the ones found by Chartrand and colleagues (1990), except for the one between generalized indecisiveness and career choice anxiety, which was slightly higher and whose not statistically significant. The difference between our correlation scores and Chartrand and colleagues' ones was statistically significant in all cases except that between generalized indecisiveness and career choice anxiety.

Finally, convergent validity was tested between CFI subscales and four other convergent scales, namely, CFI's career choice anxiety was compared with State-Trait Anxiety scale (Spielberger et al., 1983), CFI's generalized indecisiveness with Germeijs and De Boeck's (2002) indecisiveness scale (whose higher scores mean low indecisiveness), and CFI's need for career information and need for self-knowledge, respectively, with CDDQ's (Gati et al., 1996) lack of information about occupations and lack of information about myself subscales (Table 5).

Table 1. EFA Pattern Matrix Factor Loadings ($n = 1{,}000$) and CFA Parameter Estimates ($n = 1{,}060$).

	Factor				CFA Parameter Estimate
	1	2	3	4	
Career choice anxiety ("When I think about actually deciding for sure what I want my career to be I feel . . .")					
Q3. Tense vs. relaxed (*R*)	.804				.65
Q5. Worried vs. carefree (*R*)	.768				.60
Q4. Loose vs. Tight	.726				.68
Q1. Frightened vs. Fearless (*R*)	.719				.70
Q2. Dry vs. Wet	.545				.67
Q6. Jittery vs. Calm (*R*)	.504				.51
Need for career information ("Before choosing or entering a particular career area I still need to . . . ")					
Q14. To find out what present and predicted job opportunities are like for a certain career area or areas		.723			.43
Q12. to talk to people in one or more various occupations		.706			.46
Q15. To use my free time and school courses to help determine what type of career I might enjoy and do well in		.652			.52
Q16. To familiarize myself with one or a number of college majors and their requirements		.510			.56
Q17. To seek advice from others regarding my choice		.491			.42
Q13. To gain practical knowledge of different jobs through as much part-time and summer work as possible		.482			.25
Need for self-knowledge ("Before choosing or entering a particular career area I still need to attempt to answer . . . ")					
Q19. "What are my personal values?"			–.830		.81
Q20. "What type of person would I like to be?"			–.799		.95
Q18. "Who am I?"			–.751		.86
Q21. "What things are the most important to me?"			–.707		.82
Generalized indecisiveness					
Q8. For me, decision making seems: Clear vs. Hazy				.744	.54
Q7. For me, decision making seems: Hard vs. Easy (*R*)				.697	.44
Q11. While making most decisions I am: Certain vs. Uncertain				.691	.75
Q9. For me, decision making seems: Frustrating vs. Fulfilling (*R*)				.663	.42
Q10. While making most decisions I am: Quick vs. Slow				.659	.52

Note. R = reverse scored item; EFA = exploratory factor analysis; CFA = confirmatory factor analysis.

Table 2. CFA Comparison Between Competing Factorial Solutions.

	χ^2	*df*	RMSEA	CFI	NNFI
M1 – 4 factors	905.91	183	.061	.96	.95
M2 – 1 factor	5580.30	189	.164	.75	.73
M3 – 2 factors	2644.83	188	.111	.88	.87

Note. CFA = confirmatory factor analysis; RMSEA = root mean square error of approximation; CFI = Career Factors Inventory; NNFI = nonnormed fit index. $n = 1{,}060$.

CFI career choice anxiety positively correlated, as hypothesized, with trait anxiety ($r = .49$, $p < .001$) as well as with indecisiveness ($r = -.48$, $p < .001$), lack of information about occupations ($r = .27$, $p < .001$), and lack of information about myself ($r = .33$, $p < .001$). Generalized indecisiveness negatively correlated, as hypothesized, with indecisiveness ($r = -.69$, $p < .001$) as well as with trait

Table 3. Cronbach's α Coefficients for Subsample 2 ($n = 1{,}060$) Compared With Chartrand and Colleagues' Values.

	$n = 1{,}060$	Chartrand et al. (1990)
CFI total	.84	.87
Career choice anxiety	.87	.86
Generalized indecisiveness	.79	.79
Need for career information	.64	.73
Need for self-knowledge	.87	.83

Table 4. Descriptive Statistics and Zero-order Correlations Between CFI Subscale in Subsample 2 (Lower Left) and Chartrand and Colleagues (1990; Upper Right).

	M (*SD*)	1	2	3	4
(1) Career choice anxiety	18.73 (4.08)		.53**	.45**	.44**
(2) Generalized indecisiveness	14 (2.97)	.55***		.33**	.30**
(3) Need for career information	23.35 (3.25)	.20***	.11***		.65**
(4) Need for self-knowledge	14.02 (3.7)	.24***	.17***	.33***	

Note. CFI = Career Factors Inventory.
***$p < .001$. **$p < .01$.

Table 5. Convergent Validity Estimate for CFI Subscales via Zero-Order Correlations.

		Career Factors Inventory Subscales			
	M (*SD*)	Career Choice Anxiety	Generalized Indecisiveness	Need for Career Information	Need for Self-Knowledge
Trait anxiety	42.63 (9.32)	.49***	.55***	.05	.24***
Indecisiveness	78.41 (15.7)	–.48***	–.69***	–.10**	–.20***
Lack of information about occupations	10.99 (2.82)	.27***	.25***	.00	.07*
Lack of information about myself	18.35 (4.57)	.33***	.39***	.06*	.11***

Note. CFI = Career Factors Inventory.
***$p < .001$. **$p < .01$. *$p < .05$.

anxiety ($r = .55$, $p < .001$), lack of information about occupations ($r = .25$, $p < .001$), and lack of information about myself ($r = .39$, $p < .001$). Unexpectedly, need for career information did not positively correlate with lack of information about occupations, while it positively correlated with lack of information about myself ($r = .06$, $p < .05$) and negatively with indecisiveness ($r = -.10$, $p < .01$). Need for self-knowledge showed a low positive correlation, consistent with study hypothesis, with lack of information about myself ($r = .11$, $p < .001$) as well as trait anxiety ($r = .24$, $p < .001$) and lack of information about occupations ($r = .07$, $p < .05$); moreover, it negatively correlated with indecisiveness ($r = -20$, $p < .001$).

Conclusion

The aim of this study was to provide evidence of the validity and reliability of the Italian form of the CFI on a sample of students attending the last year of secondary school and university students. In

order to achieve our goals, the psychometric properties and factorial structure of the Italian version of CFI were examined.

In particular, the original four-factor model (Chartrand et al., 1990) was tested and replicated using both EFA and CFA; the results highlighted that the four-factor solution of the CFI fitted our data very well, showing that the content of each subscale was conceptually distinct from the content of the other scales. Thus, the Italian form of the scale confirmed to be consistent with the original solution by Chartrand and colleagues (1990).

In addition, internal consistency indices of the four subscales of the Italian version were acceptable and similar to those reported in previous studies. For instance, compared to Chartrand and colleagues (1990) reliability scores, subscales from the present sample showed similar α coefficients for career choice anxiety, generalized indecisiveness, and need for self-knowledge, while need for career information scores were slightly lower than Chartrand and colleagues' ones. A possible explanation to this result might be due to cross-cultural differences, especially as concerns Item 13, which showed a low factor loading. However, on the basis of good fit indices of CFA and on the basis of an acceptable α coefficient, we decided to not delete this item in order to maintain the integrity of the original model. Nevertheless, further research is needed to determine whether it is a statistical anomaly within the current data set or a meaningful result that provides for the elimination or reformulation of the item.

Moreover, regarding the correlations between the CFI subscales, the results showed that they were all positive and varied between .55 (between career choice anxiety and generalized indecisiveness) and .11 (between generalized indecisiveness and need for career information). These results were lower than the ones found by Chartrand and colleagues (1990), except for the one between generalized indecisiveness and career choice anxiety, which was slightly higher. However, our results are in line with those by Dickinson and Tokar (2004) and they strengthen our hypotheses about scales distinctiveness, showing that the CFI is a multidimensional measure evaluating different aspects of career indecision.

Finally, convergent validity of the Italian version of the CFI was examined using zero-order correlations between the four subscales of CFI and other convergent scales concerning the constructs of trait anxiety, generalized indecisiveness, lack of information about occupations, and lack of information about myself. The results confirmed our hypotheses and they were in line with previous studies conducted in different countries (e.g., Chartrand et al., 1990; Vidal-Brown & Thompson, 2001). In particular, data showed that CFI career choice anxiety positively correlated with trait anxiety, as well as with indecisiveness, lack of information about occupations, and lack of information about myself. The same results were found by Chartrand and colleagues (1990), while Vidal-Brown and Thompson (2001) in a sample of college students found higher correlations—but in the same direction of our results—between CFI career choice anxiety and career decision-making anxiety ($r = .77$) and career commitment anxiety ($r = .69$), respectively. Furthermore, generalized indecisiveness negatively correlated with indecisiveness, as well as with trait anxiety, lack of information about occupations, and lack of information about myself. Similar results were found by Vidal-Brown and Thompson (2001) regarding the correlations between CFI generalized indecisiveness and decision-making confusion ($r = .46$) and decision-making certainty ($r = -.39$), respectively. Moreover, need for self-knowledge showed a low positive correlation with lack of information about myself, as well as trait anxiety and lack of information about occupations; moreover, it negatively correlated with indecisiveness. Unexpectedly, need for career information did not positively correlate with lack of information about occupations, while it positively correlated with lack of information about myself and negatively with indecisiveness. Nevertheless, these results confirmed those by Vidal-Brown and Thompson (2001). It is important to acknowledge that several of the findings yielded only low to moderate correlations between variables. As with other multifaceted constructs, one would expect to find stronger correlations both between the subscales of the construct and between the construct and other

convergent measures. For this reason, future research should investigate more carefully the relationship between the variables explored in this study using other convergent scales and other samples.

Globally, our results showed that the Italian version of CFI is a valid and reliable instrument for the evaluation of dimensions of career indecision. The findings of this study are in line with the previous literature and they are encouraging with respect to the possibility of using the Italian version of CFI as a short, simple, but adequate measure for helping in the differential diagnosis of career indecision. They also carry implications for career counselors. For instance, the CFI can be used to complement individual and group career counseling interventions in order to enrich the definition of intervention strategies for counseling sessions or to analyze the scenarios at the end of each intervention, facilitating the clarification of each individual's personal and professional goals. Moreover, as a brief instrument, the CFI can be easily incorporated into educational and service settings and used as a quick screening tool in order to evaluate career planning and institutional planning. In addition, as suggested by Chartrand and Bertok (1993), CFI profiles can be used in conjunction with interview information in order to guide diagnosis and intervention selection.

Finally, this study has some limitations, all of which suggest avenues for further research. First, all the obtained data were collected with self-report measures; further sources of information could be very useful for this topic. Moreover, we collected all the data at a single point in time, further research could highlight the stability of results through the test–retest procedure. In addition, it would be interesting in future research to analyze the content of Item 13 in order to reformulate and adapt it better to the Italian context. Despite these limitations, this study has significant practical implications. First, taking advantage from conceptually clear and distinct scales, CFI scores can be profiled to create a picture of clients' antecedent career decisional difficulties. Furthermore, being more aware of the different aspects involved in development of career indecision should open the door to more targeted and outcome-oriented counseling strategies. Indeed, the counselors cannot approach each individual with a predetermined plan to assist them with decision-making process, but they should give to their clients a personalized approach that accounts for their specific characteristics.

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