THE "BRIGHT SIDE"
OF THE WORK-FAMILY INTERFACE:
A BRIEF WORK-FAMILY ENRICHMENT SCALE
IN A SAMPLE OF HEALTH PROFESSIONALS

CHIARA GHISLIERI
MARA MARTINI
PAOLA GATTI
LARA COLOMBO
UNIVERSITY OF TORINO

Even though the conflict perspective dominated work-family interface literature during the 1980s and 1990s, more recently the interest in exploring the positive side of interaction between work and family roles has been increasing. This study aimed to propose some theoretical reflections about the construct of work-family enrichment and to describe the initial validation of a brief work-family enrichment scale, based on Carlson, Kacmar, Wayne, and Grzywacz’ (2006) work. The scale, which measures the two directions of enrichment (work-family and family-work), was administered to a sample of 307 respondents from two different North-Western Italian hospitals. Its psychometric characteristics are discussed in terms of factor structure, reliability, capability to differentiate among groups of subjects, convergent, discriminant, and criterion-related validity. The results of the data analysis confirmed the two-factor structure of the instrument and are in line with the indications in the literature. Research limits as well as implications for future research are discussed.

Key words: Work-family enrichment; Work-family conflict; Measurement issues; Health professionals; Scale development.

Correspondence concerning this article should be addressed to Mara Martini, Dipartimento di Psicologia, Università di Torino, Via Verdi 10, 10124 Torino (TO), Italy. Email: mara.martini@unito.it

INTRODUCTION

The increasing research interest in the relationship between work and family life (Yanchus, Eby, Lance, & Drollinger, 2010) is due in part to shifting demographics, including more working women, dual career couples, and single-parent families (Major & Germano, 2006) and to the transformation related to the “information era” (MacDermid, 2005). Given these changes, more employees report difficulties in juggling responsibilities of the two most important domains of adult life: work and family/home.

Both work and family studies investigate the relationship between these two domains (Voydanoff, 2002, 2005). Work and organization studies, which this research project refers to, pay attention, specifically, to demands (e.g., hours of work) and resources (e.g., support from supervisors) deriving from the work domain (see Lapierre & Allen, 2006), that can make it harder or easier to fulfil family responsibilities. The focus is, thus, on the consequences in terms of in-
volvement, job performance, intention to leave, well-being and disease at work (Allen, Herst, Bruck, & Sutton, 2000).

Also family studies analyze reciprocal influences between work and family, examining possible determinants (e.g., care work or support from the partner and the family, but also work schedules and organizational support) of the work-family relationship (Neal & Hammer, 2006), and outcomes, in term of high or reduced well-being for the individual, the partner (“crossover theory”; Stevens, Kiger, & Riley, 2006), or other family members (e.g., children’s well-being; Milkie, Kendig, Nomaguchi, & Denny, 2010).

Recently, the work-family (or home) interface was defined as a process whereby one’s functioning and behavior in one domain is influenced by quantitative and qualitative demands and resources from the other domain (Demerouti, Bakker, & Voydanoff, 2010; Demerouti, Geurts, & Kompier, 2004). The work-family interface can be distinguished in work-home interference or conflict and work-home enrichment or facilitation.

While other theoretical models were used to understand the work-family interface (compensation, instrumentality, integration/segmentation, role identity and balance; Colombo & Ghislieri, 2008; Edwards & Rothbard, 2000; O’Driscol; Brough, & Kallia; 2006; Poelmans, O’Driscol; & Beham, 2005; Rothbard & Dumas, 2006), the conflict perspective dominated two decades of work-family literature (1980s and 1990s). Only in recent years the interest in exploring the positive interaction between work and family roles has been increasing (Gareis, Barnett, Ertel, & Berkman, 2009; Hill et al., 2007).

Work-family conflict is defined as an incompatibility between the work and family roles (Greenhaus & Beutell, 1985), while work-family enrichment is defined as the extent to which experiences in one role enhance performance in the other (Greenhaus & Powell, 2006).

Challenging scarcity-based assumptions (different roles are inherently incompatible), some research projects investigated the positive relationship between paid work and family life.

Although the benefits of participating in both work and family were recognized for over 30 years (Sieber, 1974), only few empirical research projects embraced this approach. Especially in Italy, the study of this construct (and of its relation with other aspects of organizational life) is still at the beginning stage. Three main problems seem to be relevant to this kind of studies: 1) lack of theoretical frameworks (Greenhaus & Powell, 2006); 2) scarcity of scales measuring these constructs (Hanson, Hammer, & Colton, 2006); 3) limited variety in methodological approaches (Greenhaus & Powell, 2006).

This study aims to propose some theoretical reflections about the construct of work-family enrichment and to describe the initial validation of a brief work-family enrichment scale (six items), based on Carlson, Kacmar, Wayne, and Grzywacz’s (2006) theoretical model. The aim is to provide an instrument for the Italian context, reliable and clean-cut at the same time, to be used in complex research designs that involve many variables. In fact, in agreement with Walsh, Beatty, and Shiu (2009), a shorter scale takes up less space in a questionnaire, allowing researchers to include measures of other constructs and reducing demand effects or hypothesis-guessing due to the relatively large number of items dealing with similar aspects. A shorter scale allows us to measure the construct of interest jointly to other variables and to explore causal relations among them (cf. Cann et al., 2010; Walsh et al., 2009) to better understand antecedents and outcomes of perceived enrichment.
The Theoretical Framework

The conflict model is based on the idea that a person has limited amount of time and energy to engage in different roles (scarcity hypothesis; Goode, 1960) and strain is unavoidable (given the over-demanding nature of engaging in multiple roles). The enhancement hypothesis (Marks, 1977; Sieber, 1974; Thoits, 1983), on the contrary, suggests that occupying multiple roles can be beneficial. Croter (1984) identified spillover between family and work as the “neglected face” of studies in this domain. In spite of these first signs of interest for this topic, relatively few scholars paid attention to the work-family positive interaction during the 1980s and 1990s.

In the 1990s, Kirchmeyer (1993) criticized the centrality of the construct of work-family conflict: this perspective was considered penalizing for the growth of women’s employment, contributing to the hypothesis of women’s minor productivity, due to their multiple commitments/roles.

During the 2000s, a trend change was evident: the focus of most studies shifted toward work-family enrichment and facilitation. Besides the work-family enrichment (Greenhaus & Powell, 2006), other constructs were proposed to describe the benefits of participating in both work and family, including work-family positive spillover (Edwards & Rothbard, 2000), work-family facilitation (Grzywacz, 2002), and work-family enhancement (Tiedje et al., 1990). These positive processes have been further associated with: work-family compatibility, work-family fit, work-family balance, and work-family integration (Hill et al., 2007). Even though the distinction among these constructs is often fuzzy (Hammer & Hanson, 2006), some aspects allow the differentiation between enrichment, positive spillover, facilitation, and enhancement.

Work-family enrichment. Enrichment is a process by which one role strengthens or improves the quality of the other (Greenhaus & Singh, 2003). In other words, enrichment occurs when resources generated in one role improve the quality of life in another (Greenhaus & Powell, 2006). According to Greenhaus and Powell (2006), the concept of resources is widely defined as including personal, social capital, and material assets. The authors also suggested that there are: 1) an instrumental path to enrichment — when a resource generated in one role, such as a skill, is transferred directly from one role to another (increasing performance in the receiving domain); 2) an affective path to enrichment — when a resource generated in one role promotes positive affect in that role, which in turn produces high performance and leads, in that way, to a positive affect in a second domain. Just like work-family conflict, enrichment can be bi-directional (work to family and family to work). Carlson and colleagues (2006) considered enrichment as a multidimensional construct, composed by three dimensions both in work-family direction (development, affect, and capital), and in family-work direction (development, affect, and efficiency).

Enrichment seems to be influenced by some dispositional aspects, such as extraversion (Wayne, Musisca, & Fleeson, 2004) and positive affectivity (Michel & Clark, 2009). Important antecedents of work-family enrichment are also organizational and family involvement and support (Carlson et al., 2006).

The benefits of work-family enrichment have been identified in various ways: gaining knowledge and/or skills usable in another role; providing a broader frame of references from which to relate to others; creating a buffer in one role against failure in another; increasing the complexity of one’s self-image; increasing the availability of social support, generating energy and positive affect (Hanson et al., 2006). Some research results confirmed the benefits of engaging in work and family roles to mental, physical, and relational health (Barnett & Hyde, 2001) and the benefits of combining personal and professional lives (Barnett, 1998).
Work-family positive spillover. This word has been used in the literature since the early 1980s (Crouter, 1984). Staines (1980) proposed three competing mechanisms for understanding the relationship between work and family roles: segmentation, compensation, and spillover. To distinguish among these competing mechanisms, researchers examine the correlation between job and family satisfaction (segmentation = zero correlation; compensation = negative correlation; spillover = positive correlation).

Spillover is bi-directional and can be negative (interference) or positive (promotion). Edwards and Rothbard (2000) contributed to the understanding of this construct, proposing four types of spillover, based on affect, skills, behaviours, or values (in both directions, work to family and family to work).

Hanson et al. (2006), drawing on the theoretical frameworks developed by Edwards and Rothbard (2000), defined this construct as “the transfer of positively valence affect, skills, behaviors, and values from the originating domain to the receiving domain, thus having beneficial effects on the receiving domain” (p. 251). Examples of positive affect are excitement, enthusiasm, happiness (Williams & Allinger, 1994); examples of skills are interpersonal communication and multitasking (Ruderman, Ohlott, Panzer, & King, 2002); examples of behavior are teacher’s style, use of communications device; finally, examples of values are autonomy, curiosity, consideration, patience, respecting individual differences (Hanson et al., 2006).

Work-family facilitation. Unlike conflict, there is no single established definition of facilitation. Facilitation can be defined as “the extent to which an individual’s engagement in one domain of life (e.g., work or family) yields developmental, affective, capital, or efficiency gains that result in enhanced functioning in another life domain (e.g., family or work)” (Wayne et al., 2004, p. 6). Another definition of facilitation is offered by Frone (2003): “The extent to which participation at work (or home) is made easier by virtue of the experiences, skills, and opportunities gained or developed at home (or work)” (p. 145). Just like positive spillover, also work-family facilitation is concerned with how participation in one domain is beneficial for the second domain. Researchers have theorized facilitation as arising from several sources: privileges, security from role failure, personality improvement, energizing, skills and attitudes acquired in one domain, also useful in the other, “greater confidence and better moods in one role as a result of experiences in the other role” (Stephens, Franks, & Atienza, 1997, p. 32).

Work-family enhancement. According to Carlson and colleagues (2006), enhancement can be defined as the acquisition of resources and experiences that are beneficial for individuals in facing life challenges (Sieber, 1974; Tiedje et al., 1990). Enhancement focuses on “benefits gained by individuals and the possibility that these benefits may have salient effects on activities across life domains. Enrichment, on the contrary, focuses on enhanced role performance in one domain as a function of resources gained from another” (Carlson et al., 2006, p. 133).

Measuring Work-Family Enrichment

Despite the scarcity of scales measuring enrichment and positive spillover in the 1980s and 1990s (Hanson et al., 2006), during the last decade some scales to assess enrichment and enrichment-like constructs were built and validated (Table 1). To date, no scale is available in Italian.
TABLE 1
Main measures of work-life enhancement, positive spillover, facilitation and enrichment

<table>
<thead>
<tr>
<th>Source</th>
<th>Measure</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tiedje et al., 1990</td>
<td>Role enhancement</td>
</tr>
<tr>
<td>Kirchmeyer, 1993 (based on Sieber, 1974)</td>
<td>Resource enrichment (parenting, community, recreation)</td>
</tr>
<tr>
<td>Stephens et al., 1997</td>
<td>Positive spillover (w-f; f-w)</td>
</tr>
<tr>
<td>Grzywacz, Almeida, &amp; McDonald, 2002; Grzywacz &amp; Marks, 2000</td>
<td>Positive spillover (w-f; f-w)</td>
</tr>
<tr>
<td>Sumer and Knight, 2001</td>
<td>Positive spillover (w-f, f-w)</td>
</tr>
<tr>
<td>Grzywacz &amp; Bass, 2003</td>
<td>Facilitation (w-f; f-w)</td>
</tr>
<tr>
<td>Wayne et al., 2004</td>
<td>Facilitation (w-f; f-w)</td>
</tr>
<tr>
<td>Geurts et al., 2005</td>
<td>Positive interference or facilitation (work-home and home-work)</td>
</tr>
<tr>
<td>Hanson et al., 2006</td>
<td>Positive spillover (w-f; f-w)</td>
</tr>
</tbody>
</table>

So for work-family conflict measures, as well as for enrichment scales, MacDermid’s (2005) critical reflections may be interesting. The main reference is to Schwarz and Oyserman’s (2001) paper about the comprehension and mnemonic effort required in answering a questionnaire. This type of evaluation (reflection about the two domains), for an undetermined and sometimes long time, requires that people recall episodes, images, events to support reflection and appraisal of experiences in both contexts. Memory faults, difficulties in comparing, tendency to refer to present emotions are important sources of distortion in answers.

Relationship between Work-Family Conflict and Enrichment

In order to specify the distinction between conflict and enrichment, it can be useful to recall the definition of work-family conflict, based on role-conflict theory (Kahn, Wolfe, Quinn, Snoek, & Rosenthal, 1964; Katz & Khan, 1966; Merton, 1957). Greenhaus and Beutell (1985) defined work-family conflict as: “a form of inter-role conflict in which the role pressures from the work and family domains are mutually incompatible in some respect” (p. 77).

Work-family enrichment is conceptually and empirically distinct from work-family conflict (Carlson et al., 2006). Regarding this conceptual distinction, many scholars have suggested that one is not the simple absence of the other: an individual may well experience high levels of both conflicts and enrichment/positive spillover at the same time, or high levels of one and low levels of the other.

Research confirms this distinction: the correlations between conflict and enrichment/positive spillover are in general null or weak (Hanson et al., 2006; Wayne et al., 2004) and enrichment/positive spillover has different correlates than conflict (Carlson et al., 2006; Voydanoff, 2004).
Conflict, in fact, is a psychological stressor (Greenhaus & Beutell, 1985) while enrichment is the developmental phenomenon of acquiring gains in one domain and applying these gains in another domain (Carlson et al., 2006). Moreover, the two concepts are explained by different variables: antecedents of conflict are especially demands at work and in family, while antecedents of enrichment are in particular organizational and family resources. The possible outcomes of the two constructs are also different. A recent study of Demerouti et al. (2010), for example, suggested that home life interferes with, but mostly facilitates, job performance.

METHOD

Participants and Procedure

The aim of this work was to develop an Italian brief scale, that can be used in research projects with many variables, to measure work-family enrichment. To achieve this goal, we took the recent work by Carlson and colleagues (2006) as a starting point for setting up the items, maintaining the authors’ distinction in two enrichment subscales, each of which is subdivided in three dimensions (development, affect, and capital for work-family enrichment; development, affect, and efficiency for family-work enrichment). A simplified Italian version of the items was formulated reproducing the main content of the original version. Based on the intention to preserve the theoretical model proposed by the authors, one item for each dimension was selected, specifically, the item with the highest factor loading in Carlson and colleagues’ (2006) work. Therefore, the scale that was built consists of six items (Table 2), and this number is in line with other research works which proposed 3 + 3 items for each direction of the work-family relationship (Stephens et al., 1997) or selected 3 + 3 items from existing instruments (Wayne, Randel, & Stevens, 2006). The six items are rated on a Likert scale of agreement from 1 to 5.

A first version of the scale was administered to a reduced number of respondents (N = 30) in order to evaluate whether items were comprehensible or difficult to respond to. After this comprehension pre-test, some items were simplified because they seemed too difficult for respondents. In this respect, as Carlson and colleagues (2006) suggested, we made sure to maintain both elements that identify the enrichment (resource gain in a role and performance improvement in the other role) in the formulation of the items.

This version of the instrument was administered, in paper format, to a sample of health professionals of two North-Western Italian hospitals.

The sample consisted of 307 respondents (Table 3): 67.8% working in hospital 1 and 32.2% in hospital 2. Specifically, the sample consisted of 88.5% females and 11.5% males. The mean age was 41.6 years (SD = 9.30).

Married or cohabiting individuals accounted for 66.2%, unmarried for 23.1%, and separated, divorced, or widowed for 10.7%. Two-thirds of the sample had children (66.8%) with an average age of 13.22 (SD = 9.23). Most respondents had a full-time contract (84.8%), while 46 participants had a part-time contract (15.2%), and average tenure with current organization was approximately 10 years (SD = 7.82). Weekly working hours were 40 on average (SD = 6.45) while those devoted to domestic care were about 31.5, with a higher standard deviation from the average (20.43).
TABLE 2
Work-family and family-work enrichment scale

<table>
<thead>
<tr>
<th>Enrichment dimensions (Carlson et al., 2006)</th>
<th>Items</th>
</tr>
</thead>
<tbody>
<tr>
<td>Development</td>
<td>i.1 Al lavoro sviluppo nuove competenze e questo mi aiuta a vivere meglio in famiglia [At work I develop new skills and this helps me to be a better family member]</td>
</tr>
<tr>
<td>Affect</td>
<td>i.2 Al lavoro vivo emozioni positive e questo mi aiuta a vivere meglio in famiglia [At work I feel positive emotions and this helps me to be a better family member]</td>
</tr>
<tr>
<td>Capital</td>
<td>i.3 Al lavoro mi sento realizzata/o e questo mi aiuta a vivere meglio in famiglia [At work I feel a sense of accomplishment and this helps me to be a better family member]</td>
</tr>
<tr>
<td>Development</td>
<td>i.4 Nella vita famigliare sviluppo nuove competenze e questo mi aiuta a lavorare meglio [In my family life I develop new skills and this helps me to work better]</td>
</tr>
<tr>
<td>Affect</td>
<td>i.5 Nella vita famigliare vivo emozioni positive e questo mi aiuta a lavorare meglio [In my family life I feel positive emotions and this helps me to work better]</td>
</tr>
<tr>
<td>Efficiency</td>
<td>i.6 Gli impegni famigliari mi spronano a essere più concentrata/o al lavoro e questo mi aiuta a lavorare meglio [My involvement in my family spurs me to be more focused at work and this helps me to work better]</td>
</tr>
</tbody>
</table>

Two sub-samples, homogeneous for some demographic characteristics (gender, having children, organizational affiliation, and type of contract), were then randomly extracted from the whole sample of 307 respondents. The two sub-samples were composed as follows: sub-sample 1, 156 individuals; sub-sample 2, 151 individuals (Table 3).

Statistical Analysis

After the descriptive analysis of each item (M, SD, asymmetry, kurtosis) on the whole sample, the psychometric characteristics of the scale were examined first through an exploratory factor analysis with PASW 18, performed on sub-sample 1, and then through a confirmatory factor analysis with Lisrel 8 (Jöreskog & Sörbom, 1992), performed on sub-sample 2. Goodness-of-fit for the model was evaluated using the comparative fit index (CFI), Tucker-Lewis Index (TLI also known as Bentler-Bonett Non-normed Fit Index, NNFI), and Root Mean Square Error of Approximation (RMSEA). According to Hu and Bentler (1999), cut-off values of .95 or higher for the CFI and TLI/NNFI and of .06 or less for the RMSEA are needed to conclude that a model provides a good fit for data. However, Marsh, Hau, and Wen (2004) cautioned that such guidelines should not be applied in an overly stringent way.
TABLE 3
Descriptions of global sample ($N = 307$), sub-sample 1 ($N = 156$), used in exploratory factor analysis, and 2 ($N = 151$), used in confirmatory factor analysis

<table>
<thead>
<tr>
<th>Global sample</th>
<th>Sub-sample 1</th>
<th>Sub-sample 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>$N$</td>
<td>%</td>
<td>$N$</td>
</tr>
<tr>
<td><strong>Hospitals</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hospital 1</td>
<td>208</td>
<td>67.8</td>
</tr>
<tr>
<td>Hospital 2</td>
<td>99</td>
<td>32.2</td>
</tr>
<tr>
<td>Total</td>
<td>307</td>
<td>100.0</td>
</tr>
<tr>
<td><strong>Gender</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Female</td>
<td>269</td>
<td>88.5</td>
</tr>
<tr>
<td>Male</td>
<td>35</td>
<td>11.5</td>
</tr>
<tr>
<td>Total</td>
<td>307</td>
<td>100.0</td>
</tr>
<tr>
<td><strong>Marital status</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Unmarried</td>
<td>69</td>
<td>23.1</td>
</tr>
<tr>
<td>Married/Cohabiting</td>
<td>198</td>
<td>66.2</td>
</tr>
<tr>
<td>Separated/divorced/widowed</td>
<td>32</td>
<td>10.7</td>
</tr>
<tr>
<td>Total</td>
<td>307</td>
<td>100.0</td>
</tr>
<tr>
<td><strong>Children</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Yes</td>
<td>199</td>
<td>66.8</td>
</tr>
<tr>
<td>No</td>
<td>99</td>
<td>33.2</td>
</tr>
<tr>
<td>Total</td>
<td>307</td>
<td>100.0</td>
</tr>
<tr>
<td><strong>Contract</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Full time</td>
<td>257</td>
<td>84.8</td>
</tr>
<tr>
<td>Part time</td>
<td>46</td>
<td>15.2</td>
</tr>
<tr>
<td>Total</td>
<td>307</td>
<td>100.0</td>
</tr>
</tbody>
</table>

After confirmatory factor analysis, AVE coefficient (average variance extracted) was calculated on each of the two enrichment subscales as a measure of the common variance in each latent variable (Ping, 2005). Fornell and Larcker (1981) suggested that AVE scores can be used as an index of convergent validity and that a compelling demonstration of convergent validity would be an AVE of .50 or above. Thus, to test that the subscales measure two distinct factors of enrichment (Carlson et al., 2006), two different procedures were used, drawing on the results of confirmatory factor analysis. First of all, the procedure outlined by Bagozzi and Phillips (1982) and by Anderson and Gerbing (1988) was followed. Specifically, a model that forced the correlation between the two factors to 1.0 was estimated and compared, via a Chi-square difference test, to the measurement model in which the correlation was estimated. If the Chi-square value for the measurement model is significantly lower, then when the correlation is set to 1.0, the two enrichment subscales are correlationally distinct. Secondly, Fornell and Larcker’s (1981) test was used in order to overcome some Chi-square limitations. It states that two constructs are considered separate when the AVE of each latent variable is higher than the squared correlation between the two variables, suggesting that each latent variable has more internal variance than variance shared between the latent variables (Ping, 2005).
On the whole sample, Cronbach’s alpha and the corrected item-total correlations were calculated for each subscale as measures of reliability. Paired sample t-test was then calculated to verify a significant difference between the two subscales of enrichment. Also, the scores of each subscale were submitted to analysis of variance in order to evaluate the enrichment scale’s capability to discriminate among different groups of subjects, that is: people working in hospital 1 or 2; women or men; unmarried, married/cohabiting or separated/divorced/widowed people; full-time or part-time workers. Also, correlations between the two enrichment subscales and one work-family conflict scale are presented to show the discriminant validity and to show that the two constructs are both conceptually and empirically distinct (see Carlson et al., 2006). Finally, correlations with other constructs, indicated in the literature (see Carlson et al., 2006; Grzywacz & Marks, 2000; Wayne et al., 2006) as potential work or family antecedents (supervisor and colleague support, emotional and instrumental family support) were reported to show the criterion-related validity of the scale (Hinkin, 1998).

Measures

The questionnaire, beside demographic characteristics and enrichment scale (six items measured on a 5-point Likert scale ranging from 1, strongly disagree, to 5, strongly agree), investigated the following constructs:

Work-family conflict: work-family conflict was measured with five items from Colombo and Ghislieri’s (2008) Italian adaptation of Netemeyer, Boles, and McMurrian’s (1996) work-family conflict measure (e.g., “My job produces strain that makes it difficult to fulfill family duties”). Respondents rated their perceived work-family conflict on a 6-point Likert scale ranging from 1 (never) to 6 (always). The exploratory factor analysis (ULS extraction, 64.72% explained variance) resulted in a one-factor solution. The Cronbach’s alpha for the current sample was .90;

Supervisor support: social support from supervisors was assessed with four items measured on a 6-point scale ranging from 1 (never) to 6 (always), taken from Caplan, Cobb, French, Van Harrison, and Pinneau (1975). An example item is “My supervisor is willing to listen to my job-related problems.” The exploratory factor analysis (ULS extraction, 74.57% explained variance) resulted in a one-factor solution. For the current sample the Cronbach’s alpha was .92;

Colleague support: social support from colleagues was assessed with four items measured on a 6-point scale ranging from 1 (never) to 6 (always), taken from Caplan and colleagues (1975). An example item is “My coworkers help me get through difficulties I have at work.” The exploratory factor analysis (ULS extraction, 69.14% explained variance) resulted in a one-factor solution. The Cronbach’s alpha was .89;

Family support: to assess family support, seven items from King, Mattimore, King, and Adams (1995) were used. Respondents rated their perceived family support on a 6-point scale ranging from 1 (strongly disagree) to 6 (strongly agree). The exploratory factor analysis (ULS extraction, Promax rotation, 79.11% explained variance) resulted in a two-factors solution: emotional family support (four items; e.g., “When I have a problem at work, members of my family express concern”) and instrumental family support (three items; e.g., “Members of my family help me with routine household tasks”). The Cronbach’s alpha was .91 for emotional support and .94 for instrumental support.
RESULTS

Descriptive Statistics of Single Items

Descriptive statistics showed that items with a higher average score referred to the perception of enrichment in family-work direction, consistently with literature findings (Gareis et al., 2009; Grzywacz & Marks, 2000), which highlight a greater transfer of positive perceptions in the family-work direction. In particular, the item with the highest average score in the family-work direction related to the affect dimension, while the one highest in the work-family direction was connected with the capital dimension.

The items did not have a strictly normal distribution: i.2, i.3, i.4, i.5, i.6 had a low negative asymmetry (the distribution tail is longer on the left of the mean), i.1 had a low positive asymmetry (the distribution tail is longer on the right of the mean). All items, moreover, had a negative kurtosis index: the distribution was flat with wide tails (Table 4). Notwithstanding, all values of asymmetry and kurtosis ranged between −1.0 and +1.0; only one item (i.2) was more asymmetric, with a kurtosis index of −1.04. Therefore, the items could also be analyzed by normal theory estimators and not much distortion was expected (Muthén & Kaplan, 1985).

TABLE 4

Item descriptions (Likert agreement scale from 1 to 5)

<table>
<thead>
<tr>
<th>Item</th>
<th>Description</th>
<th>M</th>
<th>SD</th>
<th>Asymmetry</th>
<th>Kurtosis</th>
</tr>
</thead>
<tbody>
<tr>
<td>i.1</td>
<td>Al lavoro sviluppo nuove competenze e questo mi aiuta a vivere meglio in famiglia [At work I develop new skills and this helps me to be a better family member]</td>
<td>2.80</td>
<td>1.20</td>
<td>0.14</td>
<td>0.27</td>
</tr>
<tr>
<td>i.2</td>
<td>Al lavoro vivo emozioni positive e questo mi aiuta a vivere meglio in famiglia [At work I feel positive emotions and this helps me to be a better family member]</td>
<td>3.04</td>
<td>1.28</td>
<td>−0.09</td>
<td>−1.04</td>
</tr>
<tr>
<td>i.3</td>
<td>Al lavoro mi sento realizzato/o e questo mi aiuta a vivere meglio in famiglia [At work I feel a sense of accomplishment and this helps me to be a better family member]</td>
<td>3.25</td>
<td>1.25</td>
<td>−0.27</td>
<td>0.13</td>
</tr>
<tr>
<td>i.4</td>
<td>Nella vita famigliare sviluppo nuove competenze e questo mi aiuta a lavorare meglio [In my family life I develop new skills and this helps me to work better]</td>
<td>3.32</td>
<td>1.21</td>
<td>−0.38</td>
<td>−0.75</td>
</tr>
<tr>
<td>i.5</td>
<td>Nella vita famigliare vivo emozioni positive e questo mi aiuta a lavorare meglio [In my family life I feel positive emotions and this helps me to work better]</td>
<td>3.78</td>
<td>1.12</td>
<td>−0.78</td>
<td>−0.42</td>
</tr>
<tr>
<td>i.6</td>
<td>Gli impegni famigliari mi sprono a essere più concentrato/o al lavoro e questo mi aiuta a lavorare meglio [My involvement in my family spurs me to be more focused at work and this helps me to work better]</td>
<td>3.08</td>
<td>1.26</td>
<td>−0.17</td>
<td>−0.97</td>
</tr>
</tbody>
</table>
Exploratory Factor Analysis

Exploratory factor analysis was conducted on sub-sample 1 (N = 156; Table 3). The chosen factor solution (Table 5) resulted in two factors, in accordance with international literature, obtained through a ULS extraction and Promax rotation. The first factor, named Work-to-Family Enrichment (E.W→F), showed high loadings corresponding to three items (i.e., i1, i2, i3) that refer to the perception of work-family enrichment. Cronbach’s alpha coefficient for this sample was .88. The second factor, named Family-to-Work Enrichment (E.F→W), had high loadings corresponding to three items (i.e., i4, i5, i6) that refer to the perception of family-work enrichment. Cronbach’s alpha coefficient for this sample was .77. This solution explained 63.57% of the total variance and the two factors had a highly significant correlation (.66, p < .01).

<table>
<thead>
<tr>
<th>TABLE 5</th>
<th>Two-factor exploratory factor analysis solution (ULS extraction, Promax rotation)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Work→Family Enrichment</td>
</tr>
<tr>
<td>i.2</td>
<td>Al lavoro vivo emozioni positive e questo mi aiuta a vivere meglio in famiglia</td>
</tr>
<tr>
<td>i.3</td>
<td>Al lavoro mi sento realizzata/o e questo mi aiuta a vivere meglio in famiglia</td>
</tr>
<tr>
<td>i.1</td>
<td>Al lavoro sviluppo nuove competenze e questo mi aiuta a vivere meglio in famiglia</td>
</tr>
<tr>
<td>i.4</td>
<td>Nella vita famigliare sviluppo nuove competenze e questo mi aiuta a lavorare meglio</td>
</tr>
<tr>
<td>i.5</td>
<td>Nella vita famigliare vivo emozioni positive e questo mi aiuta a lavorare meglio</td>
</tr>
<tr>
<td>i.6</td>
<td>Gli impegni famigliari mi spronano a essere più concentrata/o al lavoro e questo mi aiuta a lavorare meglio</td>
</tr>
</tbody>
</table>

| Alpha    | .88 | .77 |
| M        | 9.07 | 3.30 |
| SD       | 10.07 | 2.94 |

<table>
<thead>
<tr>
<th>Correlation between factors</th>
<th>Work→Family Enrichment</th>
<th>Family→Work Enrichment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Work→Family Enrichment</td>
<td>–</td>
<td>–</td>
</tr>
<tr>
<td>Family→Work Enrichment</td>
<td>.66</td>
<td>–</td>
</tr>
</tbody>
</table>
confirmatory factor analysis with Lisrel 8 (Jöreskog & Sörbom, 1992) was conducted on sub-sample 2 (N = 151; Table 3). In line with exploratory factor analysis results, the analysis with Lisrel 8 confirmed the two-factor structure: E.W→F and E.F→W. As observed in Figure 1, the first factor, E.W→F, accounted for items i.1, i.2, i.3, while the second factor, E.F→W, accounted for items i.4, i.5, i.6. Completely standardized factor loadings ranged from .65 to .81; all loadings exceeding the conventional cutoff of .40 (Hinkin, 1998). Fit indexes were satisfactory: Chi-square = 12.69, p = .12; Chi-square and df(8) ratio = 1.59; RMSEA = .06; NNFI = .98; CFI = .99.

The AVE statistics for E.W→F and E.F→W were .57 and .55, respectively. Because the AVE scores were higher than the standard of .50, results indicated convergent validity for the two subscales.

To assess whether each of the two subscales measured a unique factor of enrichment, two procedures were used. First, the difference in Chi-square values between the model which constrains the correlation to be equal to 1.0, \( \chi^2 (1) = 20.16, p = .02 \), and the unconstrained model was significant. The difference between Chi-square values was 7.47 with \( p < .01 \). Second, the results of the Fornell and Larcker’s (1981) test highlighted that the AVE of each enrichment subscale was higher than the shared variance between the constructs (.57 vs. .45 for E.W→F, .55 vs. .45 for E.F→W).

Analysis on the Whole Sample

Reliability

Reliability of the two subscales, on the whole sample of 307 individuals, was good, as results showed: the alpha coefficient was .84 for E.W→F and .78 for E.F→W, whereas corrected item-total correlations ranged from .65 to .75 for E.W→F and from .57 to .64 for E.F→W. Val-

![Figure 1](https://via.placeholder.com/150)

**Figure 1**
Confirmatory factor analysis: completely standardized solution.

© 2011 Cises
ues of corrected item-to-total correlations were above the cutoff value of .40, as indicated by Nunnally (1967).

**Paire Sample T-Test**

Paired sample t-test showed a significant difference between the means of the two subscales of enrichment, in line with Gareis and colleagues (2009): the mean of the E.F→W sub-scale (M = 10.20, SD = 2.99) was higher than the mean of the E.W→F sub-scale (M = 9.10, SD = 3.26). The significant difference between the two means, t(306) = 6.53, p < .001, emphasized that the resource gain and the improved functioning for the individual in the other role were perceived greater in the family-to-work direction.

**Analysis of Variance**

T-test for independent samples and Anova were used in order to show differences in the perception of E.W→F and E.F→W on the basis of some demographic variables.

Results of the t-test, t(296) = 3.48, p < .01, showed higher level of E.F→W for people with children (M = 10.60, SD = 3.03), compared to people without children (M = 9.34, SD = 2.79).

Analysis of variance (post-hoc LSD), in relation to marital status, evidenced some differences [F(2, 296) = 5.26, p < .01]: in particular, consistent with Grzywacz and Marks (2000), unmarried respondents (M = 9.30, SD = 2.70), express less E.F→W than both married or cohabiting people (M = 10.38, SD = 3.12) and separated, divorced, or widowed individuals (M = 11.15, SD = 2.12).

No differences were found between men and women in perception of either E.W→F or E.F→W, contrasting with other evidence in previous research (Gordon, Whelan-Berry, & Hamilton, 2007; Rothbard, 2001; van Steenbergen, Ellemers, & Mooijaart, 2007). Differences between the two hospitals involved and between full-time and part-time contracts were not significant, either.

**Correlations**

As the correlation matrix shows (Table 6), E.W→F is positively related to the four kinds of support — more to emotional family support (.29, p < .01), while less to instrumental family support (.13, p < .05) and to hours of household chores (.15, p < .05). Conversely and as expected, this variable was negatively, and not so highly, related to work-family conflict (−.18, p < .01). No significant correlation was found between E.W→F and hours worked per week, or between E.W→F and having children.

E.F→W was positively related to the four kinds of support — especially to emotional family support (.36, p < .01) and instrumental family support (.25, p < .01) — having children (.17, p < .01), and to hours of household chores (.16, p < .05). Conversely, this variable was negatively, and not so highly, related to work-family conflict (−.14, p < .01) and to hours worked per week (−.14, p < .05).
Consistent with Carlson and colleagues (2006), the two enrichment subscales were slightly negatively correlated with work-family conflict, a result that shows the discriminant validity between these scales.

As in Wayne and colleagues’ study (2006), enrichment subscales were, thus, significantly correlated to hours of household chores and to emotional family support. Significant correlations between enrichment subscales and instrumental family support, on the contrary, were not confirmed in Wayne and colleagues’ study. As expected, correlations between family supports and E.F→W were higher than those with E.W→F, while correlations between organizational supports and E.W→F were higher than those with E.F→W.

### Table 6
Means, standard deviations, reliabilities, and intercorrelations of all variables

<table>
<thead>
<tr>
<th></th>
<th>1.</th>
<th>2.</th>
<th>3.</th>
<th>4.</th>
<th>5.</th>
<th>6.</th>
<th>7.</th>
<th>8.</th>
<th>9.</th>
<th>10</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. E.W→F</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. E.F→W</td>
<td>.74**</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. Work-family conflict</td>
<td>-.18**</td>
<td>-.14*</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. Supervisor support</td>
<td>.22**</td>
<td>.14*</td>
<td>-.15**</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. Colleague support</td>
<td>.22**</td>
<td>.14*</td>
<td>-.10</td>
<td>.37**</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6. Emotional family support</td>
<td>.29**</td>
<td>.36**</td>
<td>-.09</td>
<td>.13*</td>
<td>.13*</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7. Instrumental family support</td>
<td>.13*</td>
<td>.25**</td>
<td>-.11</td>
<td>.10</td>
<td>.15**</td>
<td>.56**</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>8. Hours worked per week</td>
<td>-.10</td>
<td>-.14*</td>
<td>.22**</td>
<td>-.10</td>
<td>.05</td>
<td>.07</td>
<td>.15**</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>9. Hours of household chores</td>
<td>.15*</td>
<td>.16*</td>
<td>-.10</td>
<td>.05</td>
<td>.01</td>
<td>-.07</td>
<td>-.02</td>
<td>-.21**</td>
<td></td>
<td></td>
</tr>
<tr>
<td>10. Having children</td>
<td>.05</td>
<td>.17**</td>
<td>.05</td>
<td>-.03</td>
<td>-.11</td>
<td>-.12*</td>
<td>-.11</td>
<td>-.14*</td>
<td>.34**</td>
<td></td>
</tr>
</tbody>
</table>

Note. Having children: 1 = yes; E.W→F = work-family enrichment; E.F→W = family-work enrichment.
*p < .05; **p < .01.
DISCUSSION

Work-family enrichment, the “bright side” of the work-family interface, has just recently been taken into consideration by researchers. Up to now, very few works on this topic have been published and hardly any scales to measure it have been developed.

This paper aimed to answer many researchers’ call to provide a well-developed measure of work-family enrichment (Carlson et al., 2006; Frone, 2003; Wayne et al., 2004), through a brief, and therefore more “user-friendly,” instrument. In fact, although a reduced number of items, compared to the original version of the scale, may not succeed in expressing the semantic richness and complexity of the content of Carlson and colleagues’ (2006) scale, it still has some advantages. A scale of this type can more easily be used to study antecedents and outcomes of work-family enrichment and is better suited to explore relations among many variables (cf. Cann et al., 2010; Walsh et al., 2009).

The 6-item scale presented here, which refers to Carlson and colleagues’ (2006) two-factor conceptualization of enrichment, includes items from both directions (work to family and family to work) and measures multiple dimensions within each direction (development, affect, and capital for work-family enrichment; development, affect, and efficiency for family-work enrichment).

The exploratory factor analysis resulted in a two-factor solution, in line with expectations, and the confirmatory factor analysis showed the satisfying fit of the model: thus data confirmed the structure of the instrument. The values of AVE coefficient showed the convergent validity of the two enrichment subscales, highlighting a satisfactory amount of variance captured by each subscale in relation to the amount of variance due to their measurement errors (Dillon & Goldstein, 1984, as cited in Ping, 2005). Moreover, the procedure outlined by Bagozzi and Phillips (1982) and Anderson and Gerbing (1988) and the test of Fornell and Larcker (1981) proved that the subscales are statistically distinguishable and measure two distinct enrichment factors.

Further analyses allowed us to observe some interesting aspects. Results on the means of items and paired sample t-test emphasize a difference between the two directions of enrichment, showing that, as Frone (2003) noted, “family has a more beneficial impact on work life than work life has on family” (p. 149). Beside confirming previous findings (Gareis et al., 2009; Grzywacz & Marks, 2000), these results support the notion that enrichment does not necessarily occur equally in both directions, as the worlds of work and family are distinct domains (Frone, 2003; MacDermid, 2005). Therefore, the need for a scale distinguishing the two directions of enrichment is confirmed.

The two subscales, moreover, differentiated between groups of participants involved in the research. The perception of E.F→W was greater for people with children than those without. It was lower for unmarried than both married/cohabiting people and divorced/separated/widowed individuals. Thus, people that have not yet formed their own family and, consequently, have not experienced the commitment (in terms of care, time, energy) and, conversely, the positive aspects/factors/elements related to it, express less enrichment in this direction. These data support the “role enhancement hypothesis” (Marks, 1977; Sieber, 1974) and emphasize the benefits of multiple belongings (Greenhaus & Powell, 2006; Grzywacz & Marks, 2000), in contrast with the “scarcity hypothesis” (Goode, 1960).
As for relations among the variables, positive correlations were found with constructs considered in the literature (Wayne et al., 2006) connected to enrichment, thus showing good levels of criterion-related validity. Although not very high, the correlations are in fact in line with expectations (cf. Carlson et al., 2006): available organizational resources (supported by supervisors and colleagues) were more strongly correlated with E.W→F, and those available in the family domain (emotional and instrumental support) showed a higher correlation with E.F→W.

Data analysis also highlighted a low negative correlation with work-family conflict that, as expected, was slightly stronger between E.W→F and work-family conflict than between E.F→W and work-family conflict. This result shows that the two constructs are both conceptually and empirically distinct, which highlights their discriminant validity. The results are coherent with previous research that reports null to weak associations between indicators of work-family conflict and enrichment or enrichment-like constructs (e.g., positive spillover, enhancement; Carlson et al., 2006; Gordon et al., 2007; Greenhaus & Powell, 2006; Grzywacz & Marks, 2000; Wayne et al., 2004). This further supports the idea that conflict and positive side of the work-family interface, enrichment in particular, are not specular. Gareis and colleagues (2009) examined different possible relations between the two constructs evidencing an additive, rather than buffering, effect of conflict and enrichment in the work-to-family direction, in predicting socio-emotional well-being.

Correlations also pointed out further differences between work-family enrichment and work-family conflict: only the latter, in fact, correlated with workload (e.g., hours worked per week). Both enrichment and conflict were instead related to resources (e.g., social support), even though enrichment had higher correlation coefficients with support variables. These results are coherent with theoretical hypotheses relative to the two constructs (Lapierre & Allen, 2006; Rothbard, 2001). Conflict refers to a work-home relation “as a zero-sum game” (Hill et al., 2007, p. 522): in the presence of limited valued resources (Hobfoll, 1989), family support is used to deal with contrasting requests from work and vice versa. Enrichment, on the contrary, is based on the idea that participation and experiences in multiple roles can provide a great number of opportunities likely to promote better functioning in other life domains (Grzywacz & Marks, 2000).

CONCLUSION

The proposed enrichment scale is useful to investigate a current theme, and as already mentioned, not yet fully investigated. Moreover, enrichment focuses on the reciprocal influences between family and work life, not in terms of reduction of resources, but as added value, able to enhance functioning in the different contexts. This is relevant to direct organizational policies toward not only reducing conflict, but also the development of reciprocal enrichment (following the “music metaphor of harmony”; Hill et al., 2007, p. 523). Therefore, carrying on research on this topic may be important in order to gather further findings, make organizations aware of this vision of work-family relation, and provide them with tools to support this “virtuous circle.”

Among the strengths of this scale is the synthesis between satisfying psychometric data and the “economy” of the instrument: Cann and colleagues (2010) pointed out how this is particularly important “in contexts where research involves the administration of several measures, and respondents’ time is limited” (p. 128). In the enrichment case, this need becomes priority also
due to the requested cognitive commitment and to the difficulty — also cited in Carlson and colleagues (2006) — in responding to “double-barreled” questions.

Another asset is the capability of depicting both the bidirectionality and the several dimensions of the construct, as developed by Carlson and colleagues (2006). Moreover, in future research, the bidirectionality of the scale may allow investigators to identify the potential antecedents of enrichment perception, in order to understand, in each context, which are the most appropriate to support this perception.

Among the limitations of this study can be mentioned the characteristics of the sample, which is “imbalanced” toward women, and is composed of respondents from the same geographic area and work environment. The second limitation is that only self-report data were used. This choice raises the possibility that common method variance may have inflated the relationship between explored constructs. Because participation to the study was voluntary, it is possible that especially those who have a more positive attitude toward the topic participated to the survey.

Further developments of this validation work are feasible. Firstly, it would be convenient to test the scale on other samples, also to avoid the limitation of gender imbalance. To cross-validate the scale, it would be useful to administer it to respondents from different geographic areas, work contexts, and job positions. It will also be important to evaluate the two subscales using more complex research designs, in order to understand if this operational translation of the construct can contribute to the comprehension of well-being dynamics and to identify the factors that may favor enrichment perceptions.

ACKNOWLEDGEMENTS

The authors would like to thank Mrs. Chiara Gabba for translating the article.

REFERENCES


