

Work-family conflict in a cohort of Italian nurses. An observational, multicenter, cross-sectional study

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Abstract. *Background and aim of the work:* Work-family and family-work conflict can be defined as the degree to which participation in one role, in this case as a worker, interferes with the ability to cope with the responsibilities of another role, namely that of a member of a household. The aim of the study is to investigate the presence of indicators of work-family and/or family-work conflict in a cohort of Italian nurses and possible correlations with social and work variables. *Research design and Methods:* An observational, quantitative, multicenter survey was conducted for the study through the computerized administration of a validated questionnaire (Work-Family and Family-Work Conflict, CLF), with the implementation of sociographic variables. The cooperation of 15 Orders of Nursing Professions throughout the country was sought for sample collection. Data collection was bimonthly. *Results:* Among the participating nurses, there is a statistically significant predominance of conflict in the family-work direction. In particular, the phenomenon seems to be related to age and the presence of children and/or elderly at home to care for. Some work variables seem to positively affect the prevention of potential work-life conflict, such as rostering and work articulation. *Conclusions:* These findings place emphasis on the need for healthcare organizations to address the work-family balance of their employees. (www.actabiomedica.it)

Key words: Conflict, family, nurses, social, work

Introduction

Work-family Conflict can be defined as the degree to which participation in the work role interferes with one's ability to cope with the responsibilities of the family role (1). In the past, this construct was assumed to be one-dimensional (work-family) but has been shown instead to be bidirectional (family-work), in which sense the positive concept of family-work enrichment is also recognized. However, several studies highlight that interference in the work-family direction is prevalent (2). The need for a balance between the two sides

has become a general challenge facing labor market dynamics and work processes, along with major changes in social and family composition (3). Studies by Greenhaus and Allen have shown that work-family resources, such as family-supportive supervision by employers, can reduce conflict, and *viceversa* increase its enrichment; these two bidirectional dimensions can, in turn, promote effectiveness and satisfaction in both work and family roles, promoting balance (4). Consequences of work-family conflict include a reduction in job satisfaction and an increase in several indicators of workplace discomfort, worsened health, with particular reference

to increased levels of anxiety and depression, as well as reduced productivity (5). Several studies have then shown how resources and demands seem to play an important role in terms of the work-family relationship. In fact, both work overload and more properly cognitive load related to work complexity and content are positively and strongly associated with work-family conflict (3). Another work demand that seems to have positive correlation with work-family conflict is the organization of work schedules; in fact, shift work, night shifts and on holidays represent psychosocial risks, as also stated by the WHO (2). One possible effect of high work-family conflict is the occurrence of burnout, which, in turn, carries the risk of accruing turnover intention. In nurses, turnover intention is considered the immediate antecedent of actual leaving the profession; in contrast, enrichment and resources in the work-family sense seem to lower turnover intention (5). NEXT research, a study conducted on nurses in various European countries, reveals high levels of work-family conflict in most of the countries involved, chief among them Italy. The same results emerged from a study conducted in the United States, in which 50 percent of nurses exhibit chronic interference between work and family life (6). Working hours have been one of the most frequently studied antecedents of work-family conflict. From the perspective of role theory, time is a limited resource; therefore, an increased time commitment to the work role reduces the amount of time available for the family domain (7). It is now well established that shift work, especially that including night shifts, constitutes an objective stressful condition for the body, leading to increased cardiovascular risk and decreased hours of sleep, which in turn leads to increased levels of work-family conflict especially for young nurses who are in the process of establishing their own family units (8). Shift workers also frequently find themselves "out of phase" with respect to social times and experience greater difficulties in their relational lives, since most activities in both the family and social spheres are organized around daily rhythms, so that shift work can often be a factor in partial social exclusion (9). Also at a disadvantage appear to be single parents or parents who are both shift workers with different work schedules (10). Since the health care field is characterized by the prevalence of female nurses, analysing the relationship between work

and family is important for the implications, in support of better reconciliation, as women have traditionally been considered the primary caregivers in the family setting. Changing work schedules as children grow, for example, is one of the central strategic decisions parents make (11). Family responsibilities in many settings also extend to caring for older family members, in which case the number of elderly people at home was found to be a positive predictor of work-family conflict in nurses (7). Taking care of the work-family balance of its employees thus constitutes an important management objective in order to reduce experiences of psycho-physical malaise and counteract low performance and intentions to leave work. In this sense, a special insight deserves the role of a Family-friendly organization towards reconciliation. Such is defined as a corporate organization that supports and enhances the integration of work and family life of its employees, an element that also benefits the companies themselves. An organizational climate of sharing, equity and support facilitate the balance between the two domains considered. Equity exists when management is not constrained by, for example, marital status, overburdening single employees and demoting those with children (12). In this sense, the ability to segment the workforce according to different perceptions of work-family (or family-work) conflict is necessary to put in place reconciliation measures tailored to specific needs (13).

The aim of the research is to probe the perceptions of nurses with related to the possible presence of work-family and family-work conflict indicators, as well as the possible underlying causes of the phenomenon due to specific socio-graphical and work variables.

Population and methods

Study design

Observational, cross-sectional, multicenter study.

Tool

The main instrument of the survey is the questionnaire investigating Work-Family Conflict (CLF)

and Family-Work, validated in Italian by Colombo and Ghisleri (12), an adaptation of the questionnaire of the same name by Netmeyer et. al (13). This instrument consists of 10 items to which the participant is required to respond by expressing his or her level of agreement on a six-level Likert scale, where 1 corresponds to "never" while 6 corresponds to "always" The original instrument aims to probe different aspects of conflict in the Work- Family direction, such as lack of energy and time to devote to family (eg.: The amount of time my job takes up makes it difficult to fulfil family responsibilities), but also in the opposite family-work direction (eg. i8: Things I want to do at work do not get done because of the demands of my family or spouse/partner). Finally, socio-anagraphical questions (gender, age, marital status, etc.) were added to the questionnaire, as well as questions that relate to job role, e.g., job position, working hours, work shifts.

The study was conducted through the use of a questionnaire, administered anonymously and computerized, following the signing of informed consent also digitized. Data collection was bimonthly (May-July 2021). For the collection of the sample, the collaboration of therefore Orders of Nursing Professions on the national territory was requested. The data collection was conducted online by nurses involved from the Orders of Nursing Professions in Northern Italy: Varese, Bologna, Ravenna, Trento, Genoa; Central Italy: Grosseto, Verona, Rieti, Latina, Chieti; and Southern Italy: Salerno, Trapani, Taranto, Reggio Calabria, and Matera.

Each participant voluntary agreed to participate in the present study.

Statistical analysis

The collected data were catalogued through an electronic database and analyzed with statistical software (Excel). Descriptive statistics calculations were performed: mean, standard deviation, frequencies and percentages. Significances of cardinal variables, were determined through t-test and ANOVA. Internal consistency of the instrument was calculated through Cronbach's Alpha, while sample size was determined through Kaiser Meyer Olkin's test (KMO).

Ethical considerations

Before the study was launched, it received a favourable opinion from the Bioethics Committee of the University of Bologna (Prot. no. 113003 of 10/05/2021). The questionnaire was anonymous, and prior to its administration, the details of the informed consent were given, which had to be expressly accepted by all participants in its entirety.

Results

A total of 200 professionals were invited. One hundred and fifty-seven workers responded to the questionnaire, which based on the calculation of sample size with 95% confidence level, 5% confidence interval appears more than adequate. The study sample consisted of 157 nurses, of whom 137 were female (87.3%) and 78.3% (n=123) of the sample belonged to the nursing staff, 19,1% (n=30) coordinators of departments or services and 2,5% (n=4) nursing leadership coordinators. 93.6% (n=147) of the staff work full time under a permanent contract for 89.8 percent (n=141) of the staff. 83.4% (n=131) of the professionals work in the public sector, 56.7% (n=89) work on six days while 43.3% (n= 68) work on five days. Respondents for 24.8% (n=39) have 11 to 20 years of service, 22.3% (n=35) from 6 to 10 years, 20.4% (n=32) from 21 to 30 years, same percentage value for workers with > 30 years of service, and finally with 12.1% (n=19) professionals with less than 5 years of experience. Regarding demographic characteristics, there is a concentration in an age group of 25 to 55 years, 45.9% (n=72) were found to be married, 22.9% (n=36) cohabiting, and the remaining 31.2% (n=49) in a free state. Regarding children, 38.2% (n=60) have 1 child, 23.6% (n=37) two children, and 30.6% (n=48) have no children. 65.0% (n=102) have no elderly to care for compared with 20.4% (n=32) who have one elderly and 13.4% (n=21) who have two. Parametric analysis of the socio-graphic variables with the summation of CLF points (higher scores represent more agreement on the presence of conflict), showed significant differences in age groups and seniority. In the former case, there is an average score of $42.33 \pm (SD=9.86)$ in the operators with less

than 25 years of age, a subsequent reduction in the 25 to 45 age group ($R=38.52 - 39.51$), and resumption of score > 42 in the range of 46 to > 55 years ($P= .030$). Same in the second case, we show an average score of 41.84 ± 7.71 in professionals with less than 5 years of service, followed by a gradual decrease and rapid recovery of 21 to 30 years (42.03 ± 6.66) and with more than 30 years (44.00 ± 7.91) ($P = .005$) (Table 1).

The Kaiser Meyer Olkin test showed a good sample size ($KMO = ,844$), with Bartlett's test of sphericity $<.0001$. The instrument used also showed good internal consistency among items ($\alpha = ,829$). Table 2 shows a fairly even distribution of responses to questions 1 to 5 in which we evaluate how work negatively affects private life, in this case the mean percent agreement is 51.21 ± 38.32 . Differently, however, is when

Table 1. Sociographic variables and CLF score.

Variables Sociographic Σ	point CLF (R=6-60)			
	n(%)	M \pm DS	Test	P
Genus			t = -.510	.611
Female	137(87.3)	40.80 \pm 7.73		
Male	20(12.7)	39.85 \pm 8.30		
Age			F = 2.755	.030*
Less than 25 years old	3(1.9)	42.33 \pm 9.86		
25-35 years old	49(31.2)	39.51 \pm 7.77		
36-45 years old	44(28.0)	38.52 \pm 6.75		
46-55 years old	45(28.7)	42.96 \pm 7.61		
Over 55 years old	16(10.2)	43.50 \pm 9.04		
Civil Status			F = 1.003	.408

Table 2. Levels of agreement by CLF items.

CLF items	Never, rarely, sometime s n(%)	Very often, almost always, always n(%)
1. The demands of my job interfere with my family life.	81(51.6)	76(48.4)
2. The amount of time that work requires of me makes it difficult to fulfill my family responsibilities	72(45.9)	85(54.1)
3. At home I can't complete the things I want to do because of work commitments	72(45.9)	85(54.1)
4. I am so tired and stressed when I leave work that it is difficult for me to fulfill my family duties	75(47.8)	82(52.2)
5. Because of my work commitments, I have to change my family plans	83(52.9)	74(47.1)
6. My family's (or partner's) demands interfere with my work commitments/ activities	59(37.6)	98(62.4)
7. I happen to sacrifice work because I have to spend more time at home	15(9.6)	142(90.4)
8. Things I would like to do at work are not completed because of my family's demands	17(10.8)	140(89.2)
9. My family life interferes with my work responsibilities.	18(11.5)	139(88.5)
10. Family anxieties and concerns interfere with my ability to meet work demands	32(20.4)	125(79.6)

trying to figure out how family life negatively affects work activities, in this case the sample mean percentage agreement is 82.04 ± 25.83 ($t = -9.484$; $p = <.0001$).

Responses with a percentage $> 88\%$ are those in which the respondent happens to sacrifice work to spend more time at home [90.4% ($n = 152$)], things

he or she would like to do at work are not completed because of the demands of his or her family [89.2% ($n = 140$)], and how family life interferes with the responsibilities the professional has at work [88.5% ($n = 139$)].

Table 3 proves the substantial difference in the relationship between the two areas: work negatively

Table 3. Levels of agreement on how work or family negatively affects family or workactivities.

Variables Valwaysv	Very often. almost always. always			
	Work negatively affects family activities		Family negatively affects work activities	
	M±SD	P	M±SD	P
Genus		.222		.063
Male	61.00±36.40		72.00±34.58	
Female	49.78±38.51		83.50±24.12	
Age classes		.080		.182
< 25	60.00±52.91		93.33±1154	
25-35	49.80±37.22		76.33±26.97	
36-45	39.55±36.97		80.91±26.92	
46-55	58.22±38.80		88.89±18.85	
> 55	66.25±36.30		81.25±34.61	
Marital status		.070		.634
Single	61.71±39.21		81.71±25.37	
Married	43.33±36.46		79.17±28.96	
Cohabitants	50.56±37.48		85.56±21.70	
Separate	70.91±39.35		87.27±20.53	
Widowers	53.33±50.33		93.33±11.54	
Number of children		.016*		.791
0	60.42±36.78		85.83±22.58	
1	56.22±37.07		81.62±28.43	
2	40.00±37.18		79.33±27.54	
3	66.67±42.42		82.22±23.33	
> 3	20.00±34.64		80.00±20.00	
Elderly people to care for		.852		.222
None	52.16±38.50		82.75±24.54	
1 senior	49.38±37.66		85.00±24.88	

Variables Valwaysv	Very often. almost always. always			
	Work negatively affects family activities		Family negatively affects work activities	
2 elders	47.62±41.22		72.38±32.54	
More than 3 seniors	70.00±14.14		100	
Years of work practice		.026*		.177
< 5 years old	60.00±39.44		85.26±20.91	
6 to 10 years old	45.71±37.43		77.71±26.01	
11 to 20 years old	36.92±36.28		76.41±30.39	
21 to 30 years old	61.88±34.96		83.75±25.62	
> 30 years old	58.75±39.98		90.00±20.94	
Work articulation		.208		.205
Full Time	50.20±38.56		82.72±25.71	
Part Time	66.00±32.72		72.00±26.99	
Type of contract		.067		.336
Determined	72.73±24.12		76.36±28.02	
Undetermined	50.35±39.03		82.98±25.06	
Free Prof.	28.00±22.80		68.00±41.47	
Daily rotation		.079		.267
Work on 5 days	57.35±37.83		79.41±29.91	
Work on 6 days	46.52±38.23		84.04±22.19	
Job sector	.328		.587	
Free Prof.	35.00±19.14		70.00±47.61	
Private	60.91±28.60		84.55±21.32	
Audience	50.08±39.95		81.98±25.88	

affects family activities and family negatively affects the activities of work. The average percentage of agreement is higher in the second area on all sociographic variables.

Conclusions

Overall, from the study, it can be seen that the level of conflict in the family-work direction is prevalent compared to work-family conflict. This finding differs from the study by Zito *et al* published in 2013 (2), which highlighted that work-family conflict was prevalent. In this view, so-called "resources," such as emotional and instrumental support (especially from

the partner), defined by Landolfi *et al.* (3) in the study published in 2020, are insufficient and/or inadequate. The cross section carried out on the different variables shows that there is no significant difference in gender-related conflict: this element differs from previous studies (2), and this could be an indicator of greater balance than in the past and an indication of a gradual overcoming of the concept that women are the ones who manage the dynamics of domestic and family spheres the most. Analyzing the variable of the age of professionals, the age group that shows a potentially higher level of interference between the private and work spheres is those over 55, immediately followed by those under 25. This picture of higher level

of interference in age groups is also reflected in the analysis of years of service performed, which is why the two variables might be related. In fact, those who have more than 30 years of service show to have a higher level of work-family conflict than all the other categories examined, while the professionals who show to have a lower level of work-family conflict turn out to be those who have a length of service ranging from 11 to 20 years. These data seem to point to two most critical phases regarding the phenomenon of conflict, which are the initial and final phases, and at the same time a kind of stabilization in the middle phase of working life. Analyzing the sociographic variable of marital status, it becomes evident that separated/divorced nurses, are those who possess higher levels of work-family conflict, followed by single professionals. However, the situation is reversed if we look at what concerns the construct in the opposite direction (family-work); in fact, in this case, those who demonstrate greater interference are widowers, immediately succeeded by those who have a cohabitee. This finding may be at odds with a hypothetical expectation that married people have higher levels of work-family conflict. These findings align with the findings of Vaghar and Masrouf's (15) study, which showed that married people gradually developed a number of new cognitive and behavioral patterns, as well as new habits, that enabled them to maintain marital satisfaction, even if one of the two elements is working shifts. Regarding the presence of children, people who report having children, one or three in particular, show more significant levels of the phenomenon. In line with the study by Asiedu *et al.* (7), having elders at home to care for also seems to affect the two-way levels of conflict significantly and proportionally to the number of people to care for. Also from the analysis of the type of work articulation, it is possible to attest that, for those who perform full-time, family-work conflict is preponderant; whereas, those who reported having a part-time work articulation, demonstrate higher levels of conflict in the work-family direction. This phenomenon could be due to the fact that, those who have a work articulation of working 36 hours per week would have less time to devote to family and that this therefore hinders work commitments. Although not significantly, it shows that the freelance regime seems to protect

against the phenomenon, in both directions, as compared to salaried employment, especially if in the private sector. The findings regarding work shifts seem to show that a 24-hour shift schedule exposes professionals to higher levels of work-family conflict; this finding aligns with several studies in the literature, according to which, work shifts are often a factor in partial social exclusion (9) and a risk factor for the development of stress (8).

Work inevitably has considerable relevance to personal and professional identity, and consequently, possible repercussions on the main social organization: the family.

The study revealed that in the sample of nurses, there is a predominance of conflict in the family-work direction; analysis of different sociographic and work variables also shows that this type of interference was prevalent. However, the present study had some limitations. First of all, data collection was performed only by publicizing the questionnaire on-line thanks to the collaboration of some Orders of Nursing Professions on the national territory, and this method might influence both the statistical significance of the sample and the answers given. Additionally, the study was carried out during the Covid-19 pandemic (May-July 2021) and literature suggested (16,17) how the pandemic negatively impacts the participants' psychological conditions, too, as nurses reported higher anxiety, depression, stress and insomnia levels including fears to infect their families, too.

These findings may have an impact on health care organizations, especially in the future when the phenomenon may further increase due to an aging population.

Taking care of the work-family balance of its employees is an important management objective in order to reduce experiences of mental and physical distress and counteract low performance. In this sense, the role of *family-friendly* organizations, which support and enhance the integration of work and family life of their employees, becomes increasingly important. Companies, especially private ones, could take on policies geared toward reducing *gaps* by paying attention to the presence of children or frail persons that their employees have to take care of in their private lives. Other factors that health care organizations should take into

account is the relationship between sociographic and work variables, such as the presence of adequate articulation, rostering and proportionate overtime hours, as well as a proper ratio between the number of nurses and patients.

Funding: None

Ethic Committee: The Bioethics Committee of the University of Bologna (Prot. no. 113003 of 10/05/2021) approved the present study.

Conflict of Interest: Each author declares that he or she has no commercial associations (e.g. consultancies, stock ownership, equity interest, patent/licensing arrangement etc.) that might pose a conflict of interest in connection with the submitted article.

Authors Contribution: Authors equally contributed.

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Received: 10 May 2023

Accepted: 26 June 2023

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