

**Examining leadership and its influence on work-family interferences among
health care professionals: Multiple mechanisms at play?**

Paper for the Annual seminar on improving people performance in health care

Friday, September 28, 2012

Erasmus University Rotterdam

Organized by People Performance and Health Care Research Group,

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Tummers, L.G. & Bronkhorst, B. (2012). Examining leadership and its influence on work-family interferences among health care professionals: Multiple mechanisms at play? *Annual seminar on improving people performance in health care*, September 28, Rotterdam.

Abstract

Leadership scholars note that the relationship of employees with their supervisor is crucial for the work-family balance these employees experience. A good relationship with your supervisor can seriously improve your work-family balance. This is especially crucial in a healthcare setting, which is often characterized by long work days and night shifts. However, it seems unclear precisely *how* leadership influences various work-family dimensions. Using leader-member exchange (LMX) theory, we analyze which mechanisms are at play here. We hypothesize that high quality LMX positively influences work-family dimensions via different mechanisms, rather than one all-encompassing mechanism such as empowerment. Hypotheses are tested on survey data collected among a national sample of 790 Dutch healthcare professionals. Findings of structural equation modeling indicate that high quality LMX lowers work-family conflict, and that this is mediated via lower work pressure. Furthermore, high quality LMX has a positive effect on work-family enrichment. This relationship is mediated by enhanced meaningfulness of work. In sum, this study shows that leadership indeed affects work-family interferences in healthcare settings, and that different mechanisms are at play here, depending on the particular dimension of work-family interference analyzed.

Key words

1. Leadership
2. Leader-member exchange
3. Mediator effects
4. Work-family
5. Healthcare professionals

1 Introduction

The central goal of this article is to understand the mediating mechanisms at work in the relationship between leadership and work-family interferences. The significance of understanding work-family interferences is exemplified by the fact that work-family interferences have been linked to various negative outcomes, such as low job satisfaction, burnout, fatigue, depression and even low quality of care (Grzywacz et al., 2006; Killien, 2004). According to leadership scholars, supervisors have a crucial influence of the experiences of their subordinates, both inside and outside the work context (Arnold et al., 2007; Bass & Bass, 2008; Kacmar et al., 2007; Major & Lauzun, 2010).

Examining work-family interferences is especially important for healthcare workers. Healthcare workers often have stressful jobs, long working hours and take night shifts, possibly increasing work-life interferences (Geurts et al., 1999; Kirwan & Armstrong, 1995). Furthermore, many healthcare workers are female, and often the primary caregivers for family members (Schluter et al., 2011; Warren et al., 2009). Work-family interferences are often cited as a reason for leaving – or not even entering - healthcare professions, such as a nursing (Miracle & Miracle, 2004). Related to this, a recent study in the U.S. noted that 50% of the nurses surveyed reported chronic work interference with family (occurring at least once a week), and 41% reported episodic work interference with family. In a study of Greek physicians, Montgomery et al. (2006) concluded that “[the] heavy workload of Greek doctors is interfering with family and social obligations, and thus it is likely that these health professionals bring the emotional demands of the day home with them.” Hence, it is of paramount importance to understand the work-family interferences for healthcare workers, and ways to reduce them.

Good leadership could be a potential important source to diminish work-family interferences. For instance, good leadership could possibly alleviate the work pressure of the

Greek doctors (by making arrangements which fit the needs of the doctors), which will in turn decrease their work family conflict. In this study, we analyze the role of leadership using the well-known leader-member exchange (LMX) theory. LMX is considered to be a central mechanism in explaining employee and organizational performance (Dunegan et al., 1992; Graen & Uhl-Bien, 1995). LMX theory attributes a central role to supervisors in coordinating activities of their subordinates and providing them with social support (Thomas & Lankau, 2009).

We will analyze the relationship of LMX with both negative and positive spill-over effects of work into family life. The negative spillover effect is analyzed using the traditional ‘work-family conflict’: the situation in which the demands of work and family roles are incompatible so that participation in one role is more difficult because of participation in the other role (Greenhaus & Beutell, 1985). Basically: If you are working, you can’t be with your family, and this causes conflicts. The positive spillover effect is analyzed with the relatively new concept of ‘work-family enrichment’ (Greenhaus & Powell, 2006, McNall et al., 2010). Work-family enrichment occurs “when involvement in work results in a positive emotional state or attitude which helps the individual to be a better family member” (Carlson et al., 2006:140). For instance, a midwife can experience a very high work-family conflict, as she has to work long hours and during night shifts in order to help pregnant women with delivering their children. However, she can simultaneously experience high work-family enrichment, because the status and recognition of the work provides her with a positive feeling and self-worth, which positively influences her life outside work.

The first contribution of this article is combining the literatures on LMX with work family literature in healthcare. Although LMX is a well-known and frequently used concept, it has not often been linked to work-family dimensions (Major & Morganson, 2011:126). Culbertson et al. (2009:16) note that “most researchers have focused primarily on work

outcomes, ignoring the effect that leader–member relationships can have on nonwork outcomes or on the spillover employees experience between their work and nonwork lives”. Furthermore, the only studies which have been conducted, have not focused on healthcare workers, but instead on civil servants working municipalities (Cardenas et al., 2004), employees of telecommunications companies (Golden, 2006), IT-workers (Major et al., 2008), or a wide range of occupations (Bernas & Major, 2000; Culbertson, 2009).

The second contribution of this article is that it unravels the mechanisms at work which link LMX and work-family outcomes. Several researchers have studied the mechanisms linking LMX with outcomes, although primarily looking at work outcomes, such as job satisfaction (e.g. Harris et al., 2011; Aryee & Chen, 2006; Liden et al., 2000; Loi et al., 2009; Culbertson, 2009). Scholars have often examined the mediating influence of stress, or empowerment. However, the results are inconsistent. For instance, while Aryee and Chen (2006:793) noted that “empowerment fully mediated the relationship between LMX and the work outcomes [job satisfaction, task performance and psychological withdrawal]”, Liden et al. (2000:407) concluded that “Contrary to prediction, empowerment did not mediate relations between LMX, TMX, and the outcome variables”. Hence, it seems that it is unclear in which way LMX influence outcomes, such as work-family interference. We hypothesize that leadership influences work-family interference via different mechanisms, rather than one all-encompassing mechanism, such as empowerment. We expect that the mechanism (/mediator) relating LMX to work-family conflict is a different one than the mechanism relating LMX to work-family enrichment.

The above discussion brings us to the following research question:

“Which variables mediate the relationship between a) LMX and work-family conflict and b) LMX and work-family enrichment?”

Section 2 develops a theoretical framework, outlining the relationships between LMX, work-family conflict and enrichment, and its potential mediators. From the theoretical framework, we will develop a number of hypotheses. Section 3 describes the operationalization of the concepts and the design of the research project. The study uses data of a national survey among 1,278 midwives in the Netherlands (respondents: 790, response rate 61%). Following this, the results section shows some descriptive statistics and discusses the Structural Equation Model which is used to test the hypotheses. We conclude by discussing the contribution of this article to the literature on leadership and work-family interference in healthcare settings.

2 Theoretical framework

2.1 Background on LMX

It is often shown that the type and degree of leadership is important for organizational and employee outcomes (Basu & Green, 1997). In general, two contrasting views on leadership in organizations can be distinguished (Howell & Hall-Merenda, 1999; Wang et al., 2005). One view is leader-focused and attempts to explain performance by analyzing specific leadership behaviors and linking them directly to outcomes. This view is taken by theories on transactional and transformational leadership. The second view is relationship-based, analyzing how leaders *interact* with their employees, and how this evolves in time. This view is best exemplified by the leader-member-exchange (LMX) theory (Howell & Hall-Merenda, 1999:680; Wang et al., 2005:420). In this article, we take on the second view.

The main assumption of LMX theory is that leaders develop differentiated relationships with their subordinates (Graen & Uhl-Bien, 1995). Based on social exchange theory (Blau, 1964), LMX suggests that supervisors employ a social exchange framework in which varying types of relationships are established with subordinates that range on a continuum from lower to higher quality exchanges (Bauer & Green, 1996). In relationships

that are characterized by low LMX, there mainly is an economic exchange between employer and employee (time is exchanged for money). In high-quality relationships, mechanisms of reciprocity and social exchange become effective. These high-quality relationships are based on mutual liking, trust, obligation, and respect (Graen & Uhl-Bien, 1995). Various scholars suggest that employees will exert extra effort in their jobs, if they feel that they are valued by the organization and their leaders (Eisenberger et al., 1986).

In general, high leader-member exchange can have several important work outcomes, such as increased satisfaction (Gerstner & Day, 1997), higher task performance (Dansereau et al., 1975; Wayne et al., 1997) and less turnover (Graen et al., 1982). The literature of leader-member exchange concludes that the relationship of a leader with his or her members has a major impact on work experiences (Liden et al., 1997).

2.2 LMX and work-family interference

In this study, we explicitly focus on the effects of LMX on work-family issues. With LMX, the high-quality relationship between the supervisor and the employee is the result of the mutual benefits both receive from that relationship. Major and Lauzun (2010) describe this exchange of benefits from a work-family perspective. They argue that the leader values the subordinate's contributions and makes sure that the subordinate feels valued and continues to be productive, which means helping the subordinate manage work interference with family. Similarly, the subordinate invests in contributing in ways that are instrumental to the supervisor's goals. Based on this, the subordinate trusts that the supervisor will provide appropriate assistance and recognition, including helping to ensure that the subordinate is able to manage work interference with family (Major & Lauzun, 2010:71-72). Thus, a high quality social exchange between supervisors and their subordinates can influence the work-family interference employees experience.

The limited number of studies which empirically analyzed the effect of LMX on work-family interference, often found that in a high quality LMX relationship, subordinates have less work-family interference (Major & Lauzun, 2010). For instance, Major and colleagues (2008) argue that employees in a high LMX relationship enjoy greater trust, respect and liking from supervisors and therefore have greater negotiating latitude to alleviate negative work interference with family. Their study of 792 IT workers in 10 different organizations empirically showed that a high LMX relationship is associated with reduced work interference with family. They concluded that “high LMX and coworker support were both associated with reduced work interference with family” (2008:892). On the other hand there are some studies which have found negative (Bernas & Major, 2000) or no effects (Cardenas et al., 2004) of LMX on work-family interference.

However, it is still unclear *how* a high quality LMX relationship precisely influences (difference dimensions of) work-family interference. We concur with Liden and colleagues who argue that the supervisor–subordinate relationship has a major impact on employees' work experiences, which in turn influence the work-family interference. Hence, LMX influences work-family interference *via* various work experiences. For instance, high LMX can influence increased job autonomy, influence in decision-making, more meaningful work and less work pressure (Scandura & Graen, 1984). We argue that this, in turn, helps employees to manage work interference with family. In other words, LMX does not directly affect the way work interferes with family life, but a high LMX relationship can provide certain work experiences that are positive for the spillover between work and family domains. This is discussed next.

2.3 LMX and work-family conflict

Research on the interference between work and family domains has differentiated between many types of interference, work-family conflict being the most popular linkage. We expect

that the degree of *work pressure* can mediate the relationship between LMX and work-family conflict.

For employees in the healthcare sector, work pressure is a well known demand in working life and has been an issue of growing concern in recent years (Siegrist et al., 2010). Research has shown work pressure to be the most frequent predictor of healthcare employees' job dissatisfaction (Laschinger et al., 2007), which makes it highly relevant to investigate what role work pressure plays in the relationship between leadership and work-family conflict of healthcare employees. This seems especially true for midwives, since Carlisle et al. (1994) conducted a study among midwives and found that these particular healthcare employees reported significantly greater work pressure than their nursing colleagues.

Following Major and Morganson (2011), we argue that a high LMX relationship can minimize employees' perceived work pressure, because employees will feel that they are more valued. Hence, the work that they do does seem such a hard task. As a result, their work-family conflicts will decrease. Related to this, Bernas and Major (2000) found that LMX had an ameliorating effect on work interference with family via diminished work-related stress (see also Lagace et al. 1993; Brouer & Harris, 2007). In accordance with these findings we hypothesize the following mediation effect:

H1: LMX will lower work-family conflict, and this relationship is mediated by the level of work pressure.

2.4 LMX and work-family enrichment

Next to work-family conflict, we study work-family enrichment (Greenhaus & Powell, 2006). As noted, work-family enrichment can occur “when involvement in work results in a positive emotional state or attitude which helps the individual to be a better family member” (Carlson et al., 2006:140). Some studies have found that work-to-family conflict and enrichment are

not correlated, whereas others report small correlations between the two. Thus, work-family conflict and work-family enrichment can be viewed as independent constructs rather than opposite ends of a single continuum (Voydanoff, 2004).

We hypothesize that LMX influences work-family enrichment by enhancing the *meaningfulness of work* (Hackman & Oldham, 1976). When employees and managers have a high LMX relationship, leaders will provide employees with more insight on how the organization works and give them more responsibility. Hence, employees with a high quality LMX relationship get a more prominent role in the organization, and gain more understanding of their role in the organization. This can increase employees' perceptions of making a difference in their work and seeing the relationship of their work within the larger organization: they will experience more *meaningful work* (Tummers & Knies, 2012). This psychological benefit may be transmitted into family life via the psychological spillover of positive emotions and energy expansion, thereby contributing to work-to-family facilitation (Voydanoff, 2004). In healthcare, the degree of meaningfulness seems especially important, given the nature of the work. Arnold et al. (2007) investigated the mediating effect of work meaningfulness in the relationship between leadership and psychological well-being among Canadian healthcare workers. Findings indicated that meaningfulness of work partially mediates the effect of leadership on affective well-being and fully mediates the effect on mental health. Other studies did not explicitly test the mediating effect of work meaningfulness, but showed that meaningful work relates to both LMX (Clausen & Borg, 2011) and work family enrichment (Tummers & Den Dulk, 2011). These research findings lead to our second mediation hypothesis:

H2: LMX will increase work-family enrichment, and this relationship is mediated by the level of meaningfulness.

The proposed theoretical model is shown in figure 1. As can be seen, we expect two fully mediated effects in the relationship between leadership and work-family dimensions. The next sections provide the method and results for testing this theoretical model.

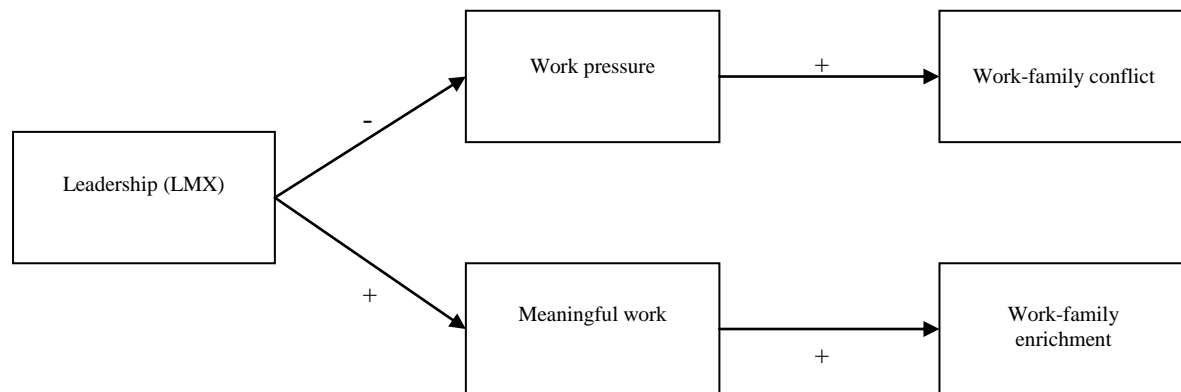


Figure 1

Hypothesized relationships between leadership, mediators and two work-family dimensions

3 Methodology

3.1 Data collection

To test the hypotheses, we undertook a survey of Dutch healthcare professionals, in particular midwives. Midwives offer care to childbearing women during pregnancy, labor and birth, and during the postpartum period. We used a sample of 1,278 midwives, based on the databases of the nationwide associations for midwives (KNOV) and midwife ultrasound specialists (BEN). We asked the midwives to respond to the online survey, using an introductory email (directly where possible, otherwise via the organization) and two reminders. Furthermore, we contacted all organizations via telephone and asked them to stimulate their employees to fill in the survey.

In total, 790 respondents returned our questionnaire (response rate of 61%). We phoned a number of midwives who did not complete the survey about the reasons why they did not participate (a non-response research). The non-response research did not indicate any possible biases in our sample. The most important reasons were current workload (no priority) and the fact that they did already fill out a number of surveys. The respondents mean age and gender-distribution are rather similar to those of the overall population of midwives, as measured by research institute Nivel (Hingstman & Kenens, 2011): 2,8% men and 97,2% women. This is consistent with the Dutch average for midwives (98%), which is a traditional female occupation. The respondents' average age was 40, which is similar to the Dutch national average of 37 for this group.

3.2 Measures

The following measures were collected in the survey. Unless stated otherwise, the measures were formatted using five-point Likert scales (strongly disagree, disagree, neutral, agree, strongly agree).

Leader-member exchange. LMX was measured using the 7-item LMX scale of Liden et al. (1993), which is based on the scale of Scandura and Graen (Scandura & Graen, 1984). The items measure the quality of the relationship between respondents and their leaders. Sample items are “I feel that my immediate supervisor understands my problems and needs” and “I usually know how satisfied my supervisor is with me”. The internal reliability of this LMX measure proved to be very good (Cronbach's alpha was .92 in this study).

Meaningfulness of work. The concept of meaningfulness is traditionally based on the alienation tradition, which considers its inverse: meaninglessness (Tummers, 2012). We used the often-applied scale of Mottaz (1981) to measure work meaningfulness. The scales of Mottaz are based on the alienation tradition, and hence talk about meaninglessness, instead of meaningfulness. We retained all eight items, and only reversed their answers (recoded, R) in

the statistical analyses. Sample items are “Sometimes I am not sure I completely understand the purpose of what I am doing”, “I often wonder what the importance of my job really is” (R) and “My work is really important and worthwhile”.) The Cronbach’s alpha for the meaningfulness measure is .84.

Work pressure. To measure work pressure, we used the short ‘Swedish’ version of the Demand-Control Support model questionnaire developed by Karasek and Theorell. This instrument has five questions dealing with (mainly quantitative) psychological demands (Theorell & Karasek, 1996). These five questions are included in the survey to measure work pressure and only have four frequency-based response categories for each question (never, sometimes, often, always). A sample item is “Do you have enough time to finish your work?”. The internal reliability of this measure is adequate (Cronbach’s alpha is .74).

Work-family conflict. The first work-family dimension measures conflict between the work and family domain. In order to study this work-family conflict variable, we included three items in our survey based on the work-family interference dimension of the SWING questionnaire (Geurts et al., 2005). These three items all have four frequency-based response categories ranging from 1 ‘never’ to 4 ‘always’. A sample item is “How often does it happen that your work obligations make it difficult for you to feel relaxed at home?”. The Cronbach’s alpha coefficient of .79 indicates an adequate internal consistency for the scale.

Work-family enrichment. Work-family enrichment was measured using the affect dimension of a multi-dimensional construct developed by Carlson et al. (2006). This dimension is defined as “when involvement in work results in a positive emotional state which helps the individual to be a better family member” (Carlson et al., 2006:140) and consists of three items. “My involvement in my work puts me in a good mood and this helps me be a better family member” is a sample item. The Cronbach’s alpha for this measure is .91.

3.3 Data analysis

We applied structural equation modeling (SEM) using AMOS version 18 to test our mediation hypotheses. Following Anderson and Gerbing's (1988) two-step approach, the measurement model was first tested and then the hypothesized structural models were tested. For the first step, the measurement scales of the theoretical constructs were assessed by conducting confirmatory factor analysis (CFA). In the second step the structural model subsumes conventional regression to test the hypothesized mediation relationships (model 1: full mediation).

Furthermore, we conducted additional analyses by testing two alternative models: model 2 (nonmediation), model 3 (partial mediation). Due to the non-normality of the data, we used a bootstrapping method (Efron, 1982) to establish bias-corrected estimates and valid confidence intervals. The overall fit of the models was evaluated by a combination of absolute and relative fit indices recommended by Williams et al. (2009) and Schreiber et al. (2006).

4 Results

4.1 Univariate and bivariate statistics

Table 1 presents the descriptive statistics for the variables used in this study. Looking at this table, the LMX variable mean score (mean = 3.50, S.D. = 0.71) shows that midwives are fairly positive about the relationship with their supervisor. They reported a high level of meaningfulness of work (mean = 4.17, S.D. = 0.4). Hence, in general midwives feel that their work is important and worthwhile, and have the feeling that they understand the purpose of their job. The work pressure mean score is slightly below the theoretical average (mean = 2.57, S.D. = 0.43), indicating that midwives experience an average amount of work pressure. Next, the average scores on the work-family dimensions are 2.02 (S.D. = 0.56) and 3.61 (S.D. = 0.69) for work-family conflict and work-family enrichment respectively. This means that

midwives experience fairly low work-family conflict and fairly high work life enrichment, which can be considered positive results.

The bivariate correlation matrix is presented in table 2. From this table we can conclude that LMX is significantly associated with all other variables. Moreover, all linkages are in the anticipated direction. For example, LMX is positively correlated with meaningfulness of work and negatively correlated with work pressure.

Table 1 Descriptive statistics

Variable	Mean	Standard deviation	Scale range	Variance	Observed minimum	Observed maximum
1. LMX	3.50	0.71	1 - 5	0.51	1.00	5.00
2. Work pressure	2.57	0.43	1 - 4	0.19	1.60	3.60
3. Meaningfulness of work	4.17	0.40	1 - 5	0.16	3.12	5.00
4. Work-family conflict	2.02	0.56	1 - 4	0.31	1.00	3.67
5. Work-family enrichment	3.61	0.69	1 - 5	0.48	1.00	5.00

Table 2

Bivariate correlations (Pearson's correlations)

Variable	1	2	3	4	5
1. LMX	-				
2. Work pressure	-.310*	-			
3. Meaningfulness of work	.356*	-.046	-		
4. Work-family conflict	-.157*	.525*	-.067	-	
5. Work-family enrichment	.242*	-.173*	.311*	-.272*	-

* Relationships are statistically significant at $p < 0.05$

4.2 Measurement model

We examined the overall factor structure of all the research variables by conducting a confirmatory factor analysis (Bagozzi 1981). The conceptual framework in figure 1 consists of one independent variable (LMX), two mediators (work pressure, meaningfulness of work,)

and two dependent variables (work-family conflict and work-family enrichment). All of these variables are latent constructs with at least three indicators. The validation of the latent constructs was conducted in a first-order model with covariances between the constructs.

Since our data do not have a normal distribution (Mardia's coefficient >10 and critical ratio for kurtosis values exceed 2, which indicates statistically significant non-normality), a bootstrap method is recommended (Efron & Tibshirani, 1993). Furthermore, bootstrapping is the preferred method for testing mediated effects (Preacher & Hayes, 2004; Hayes, 2009). The bootstrapping method is used to fit our measurement model. In its simplest form, the bootstrap is a method to estimate the parameters of a model and their standard errors strictly from the sample, without reference to a theoretical sampling distribution (Efron & Tibshirani, 1993). The bootstrap directly follows the logic of statistical interference. Statistical interference assumes that in repeated sampling, the statistics calculated in the sample will vary across samples. In our study, we have taken 2.000 times a sample (with replacement) from the observed sample at hand. From these samples, the estimates of the expected value and the variability of the statistics are taken (Hox, 2003).

We evaluated the measurement model using fit indices recommended by several authors (Williams et al. (2009); Schreiber et al. (2006)). These fit indices showed that the measurement model provides an adequate fit to the data (CFI 0.95, TLI 0.95, RMSEA 0.050, SRMR 0.054). First, the Comparative Fit Index (CFI) is a relative fit index which compares the fit of the model with the baseline model (McDonald & Ho, 2002). The CFI was 0.95, which is presently recognized as indicative of good model fit (values ≥ 0.90 for acceptable fit, values ≥ 0.95 indicate good model fit, Hu & Bentler, 1999). The Tucker-Lewis Index (TLI) is also a relative fit index and was 0.95, indicating good fit (≥ 0.95 indicates good fit) (Hu & Bentler, 1999). The root mean square error of approximation (RMSEA) and the standardized root mean square residual (SRMR) are absolute fit indices that measure how well the model

fits in comparison to no model at all. The RMSEA and SRMR were both 0.05. The general consensus is that the RMSEA value should be close to 0.06 (acceptable fit for values <0.08) and the SRMR is considered to indicate good fit for values less than 0.08 (Hooper et al., 2008). This means our RMSEA and SRMR values indicate that the model fits the data.

In addition to the overall model fit indices, the parameter estimates indicated that all observed variables (i.e. survey items) had a statistically significant correlation at the $p < 0.01$ level with their corresponding indicator variable. Moreover, each indicator significantly loaded onto the appropriate factor, with moderate standardized factor loading ranging from a high of 0.96 to a low of 0.46.

Since both our goodness of fit indices and parameter estimates indicate that our measurement model has a good fit, we can conclude that the individual measurement items converge on their respective latent variables and that each measure represents a distinct latent variable.

4.3 Structural model

In order to determine the hypothesized mediation effects as shown in the conceptual model, we posited a fully mediated causal structure resulting in a structural equation model (see figure 2). Applying the bootstrapping method, the fit indices that the model adequately fits the data (CFI 0.94, TLI 0.93, RMSEA 0.053, SRMR 0.071). The CFI and TLI values point to an acceptable fit of the data, and the RMSEA and SRMR even point to a good fit of the data (Hu & Bentler, 1999). Figure 2 reports the standardized estimates of the direct effects for the main predictors and proportions of explained variance (R^2) between parentheses.

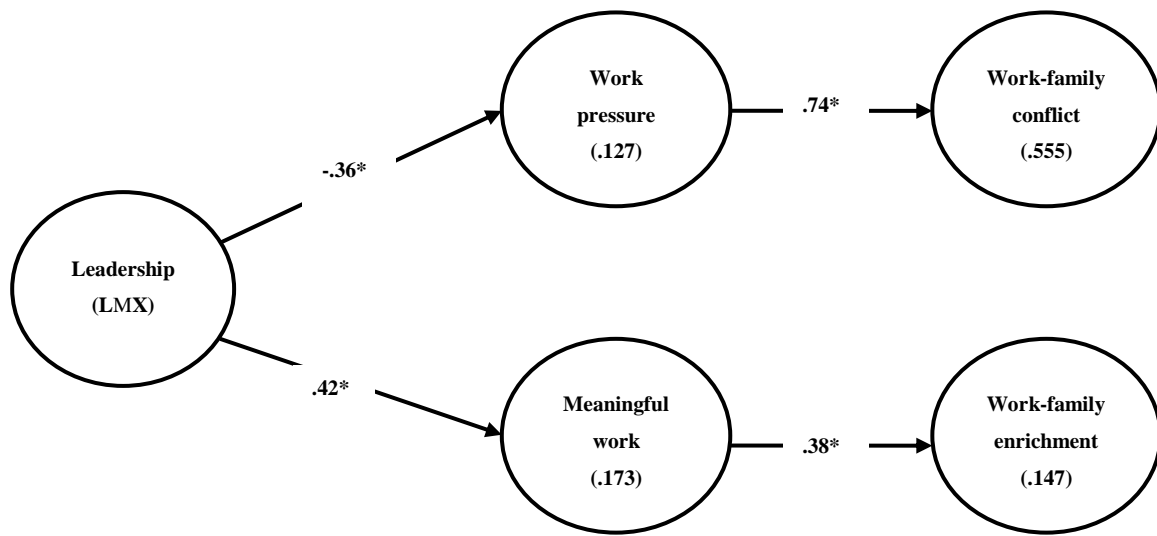


Figure 2 Model 1 (full mediation): Results of structural equation modelling (n = 299)

* Relationships are statistically significant at $p < 0.05$

Based on these results, we do not reject the two hypotheses. First, we examine hypothesis 1, which states that LMX will lower work-family conflict, and that this relationship is mediated by the degree of work pressure experienced. First, we see that LMX negatively influences work pressure ($\beta = -.36, p < .01$). Next, more work pressure heightens work-family conflict ($\beta = .74, p < .01$). This findings suggest an indirect effect of LMX on work-family conflict through work pressure. SEM bootstrapping techniques allow for examination of the indirect effects of each predictor variable on the outcome variables in the model. Any indirect effects between two variables through another variable are multiplied, thereby showing the indirect relationship between two variables (Bollen, 1989). Hence, the total indirect effect of LMX was $-.26 (-.39 \times .78, p < .01)$. In other words, when the degree of LMX increases by 1, the work-

family conflict experienced decreases by .26. Given that this effect is significant and negative, we do not reject hypothesis 1.

Hypothesis 2 states that LMX will increase work-family enrichment, and that this relationship is mediated by the degree of meaningfulness of work. LMX is indeed positively related to the meaningfulness of work ($\beta=.42, p <.01$) and meaningfulness of work is positively related to work-family enrichment ($\beta=.38, p <.01$). The total indirect effect of LMX was hence $-.16 (.42 \times .38, p <.01)$. Given that this effect is significant and negative, hypothesis 2 is not rejected.

These findings suggest an indirect effect of LMX on work-family dimensions through the experience of work pressure and meaningfulness of work. We present the standardized estimates of the direct and indirect effects of the variables included in the model in table 3¹.

Besides the robust estimates, bootstrapping procedures also provide bias-corrected confidence intervals so that we can test the significance of the indirect effects shown in table 3. First, the results of the indirect path to work-family conflict show that the 99% confidence interval is between $-.399$ and $-.129$. This means that we can be 99% certain that the indirect effect of LMX on work-family conflict is not equal to zero. A negative mediation effect of the relationship between LMX and work-family conflict ($\beta= -.266$) is clearly present in our sample. When we look at the results of the indirect effect of LMX on work-family enrichment, we find that zero is not between the lower (0.069) and upper bound (0.296), so we can claim that the indirect effect is not zero with 99% confidence. The beta coefficients further reveal that work-family conflict is affected more strongly by leadership and work experience than its counterpart work-family enrichment.

¹ Standardized total effects of LMX, work pressure and meaningfulness of work are equal to the standardized direct and indirect effects presented in table 3.

Table 3 Standardized direct and indirect effects for structural equation model

Variable	Work pressure	Meaningfulness of work	Work-family conflict	Work-family enrichment
<i>Direct effects</i>				
LMX	-.357* (.071)	.416* (.064)	-	-
Work pressure	-	-	.744* (.057)	-
Meaningfulness of work	-	-	-	.384* (.069)
<i>Indirect effects</i>				
LMX	-	-	-.266* (.053)	.160* (.042)

Note: bootstrap, bias-corrected two-tailed tests used to calculate significance of the indirect effects. Parameter estimates for effects are followed by standard errors in parentheses.

* Relationships are statistically significant at $p < 0.05$

Although the model shows that LMX has an indirect effect on work-family conflict and work-family enrichment, the question remains whether other (non)mediation models fit the data better. For instance, does LMX also influence work-family outcomes directly without being mediated through work experiences? The correlation matrix in table 2 showed that LMX is directly related to both work-family conflict and work-family enrichment. So could this be a case of partial mediation or no mediation? To answer these questions we conducted some additional analyses. These are outlined next.

4.4 Alternative models

To shed more light on the mediating mechanisms, we conducted additional SEM analyses to test the validity of two alternative models: model 2 (non mediation) and model 3 (partial mediation). For model 2, we removed the direct paths from LMX to work pressure and meaningfulness and added two direct paths to the work-family dimensions, leaving four direct paths from the predictors to the two response variables in the model. The fit indices show that the data do not fit as adequately as in the fully mediated model 1 (CFI 0.92, TLI 0.91, RMSEA 0.06, SRMR 0.12). While the CFI, TLI and RMSEA values did not change

significantly compared to the first model, a SRMR value of 0.12 is definitely not within the acceptable range (Williams et al., 2009). The non mediation model does therefore not provide an adequate fit to the data.

For model 3, we replaced both direct paths from LMX to work pressure and meaningfulness, positing a partially mediated structure. Just like the first model, the results of model 3 show that the data fit adequately (CFI 0.94, TLI 0.93, RMSEA 0.053, SRMR 0.071). At the same time however, the direct effects we just added from LMX to work-family conflict ($\beta = 0.110$, $p = 0.059$) and work-family enrichment ($\beta = .131$, $p = 0.095$), are statistically insignificant. To find out which model is superior, we compared the fit of the hypothesized model (model 1) and the second alternative model (model 3) by the significance of change in chi square (Satorra & Bentler, 2001). The chi-square of model 1 is greater than that in model 3 ($\chi^2 = 537.2$ versus 511.7). However, the difference between the chi-squares was not significant ($\Delta \chi^2 = 25.5$, $p > 0.05$). Because the fully mediated model 1 is more parsimonious than the partially mediated model 3 and the difference in chi-square is not statistically significant, the hypothesized model is considered better than the alternative model. Thus, our data indicate that both work-family conflict and work-family enrichment are affected by leadership solely *via* the experience of work.

5 Conclusion

In this paper, we have analyzed the relationship between LMX and positive and negative spillover of work to the family domain. Based on the literature review and the empirical results, we have shown that LMX influences work-family interferences via different mechanisms, rather than one all-encompassing mechanisms such as empowerment.

Looking at the negative spillover effect of work on the family life (work-family conflict), we have found that a high LMX relationship can mitigate the degree to which an

employee experiences conflicts between the work and family domain via a decrease in work pressure. Hence, it seems that a good relationship with supervisors is very important, as this decreases the experienced work pressure which in turn decreases work-family conflicts. We must note here that we have measured *experienced* work pressure. The objective degree of work pressure might not have decreased – or even have increased, as supervisors might ask midwives with which they have a good relationship to perform extra tasks. But we see here also the Thomas Theorem at work: if people perceive things as real, they are real in their consequences (Merton, 1995). A good quality with the supervisor could alleviate perceived work pressure, which in turn lessens work-family conflict. This is good news.

The influence of LMX on the positive spillover effect (work-life enrichment) is mediated by the meaningfulness of work. High or low work pressure does not seem to affect the degree of work-family enrichment healthcare workers experience. Here, the degree of meaningfulness seems far more important. In other words, for work-life enrichment it is not important how hard you think you have to work, but how satisfying and fulfilling this work is. The important role of meaningful work – and the role of LMX in it - is interesting, as many scholars in HRM and leadership do not take meaningfulness into account. They focus more heavily on for instance autonomy or participation (for instance Deci & Ryan, 2004; Kim, 2002). One of the few models which explicitly takes into account the role of meaningfulness is the Job Characteristics model (Hackman & Oldham, 1976). Further researching the important role of meaningfulness – and its link with leadership - could be a worthwhile topic of study.

When studying meaninglessness among healthcare workers, such as midwives, the question needs to be raised why they experience less meaning in their work. Some midwives might view their work as less meaningful as they think that their work should be done by more qualified people, such as gynecologists. In the Netherlands, for instance, midwives play

a very dominant role in the guidance process of pregnancy and child delivery, as women predominantly give birth at home, and midwives assist them in this process. Nowadays, the midwifery profession of midwifery is continually discussed. For instance, there is a debate about the risks of child delivery at home (Croonen, 2010). Gynaecologists point to these risks and prefer speedier referral to medical experts with a hospital delivery. It could be the case that midwives therefore feel their work as less meaningful, as it could involve more risks for the mother and child. Leaders – who are sometimes in charge of both midwives and gynaecologists – could discuss this with midwives, possibly increases their meaningfulness by giving them other tasks or letting them work in close cooperation with gynaecologists. It would be worthwhile if scholars could study this meaningfulness concept in depth, using both qualitative and quantitative techniques.

This brings us to the limitations. As with all studies, this study has limitations. Firstly, although the study's generalizability was improved by the fact that the sample included a large number of midwives, working in different positions and places, the results of this study should be interpreted in light of the limited context and sample. An area for further research would be to test the proposed model in other professions, such as nurses or general practitioners, and outside the healthcare context. Here, a comparative approach might work adequately, examining different professions in various countries.

A second limitation concerns the chosen method. This study used a cross-sectional survey-based method. First, this could be prone to common-source bias, highlighting the need for a longitudinal design. Next, a qualitative approach could also be applied, to increase the understanding of the context in which these healthcare employees work. This can be very beneficial when examining sociological/psychological phenomena such as leadership and work-life interferences. Hence, a sequential strategy can be used, where the researchers starts with a quantitative approach, which is followed by a qualitative approach to further

understand and contextualize the feelings and perceptions of the healthcare employees (see also Holloway & Wheeler, 2009:19).

In sum, this study shows that leadership has important effects on work-family interferences, and that different mechanisms are at play when looking at positive and negative work-life interferences. Embracing and further researching the link between leadership and work-family interferences, including ways to use this knowledge to reduce negative and heighten positive work-life interferences, should prove to be a meaningful endeavour for both researchers and practitioners alike.

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