

2018

Adaptation of an existing measure to assess professionals' attitudes regarding the importance of involving fathers in interventions with families

Adaptation d'une échelle afin de mesurer les attitudes des professionnels quant à l'importance d'inclure les pères dans leurs interventions auprès des familles

Christine Gervais

Université du Québec en Outaouais, christine.gervais@uqo.ca

Sophie Meunier


Université du Québec à Montréal, meunier.sophie@uqam.ca

Francine deMontigny

Université du Québec en Outaouais, francine.demontigny@uqo.ca

See next page for additional authors and complete author listing

Follow this and additional works at: <http://snahp-sips.ca/journal>

 Part of the [Family Practice Nursing Commons](#), [Maternal, Child Health and Neonatal Nursing Commons](#), [Nursing Midwifery Commons](#), and the [Pediatric Nursing Commons](#)

Recommended Citation

Gervais, Christine; Meunier, Sophie; deMontigny, Francine; and Dubeau, Diane (2018) "Adaptation of an existing measure to assess professionals' attitudes regarding the importance of involving fathers in interventions with families," *Science of Nursing and Health Practices - Science infirmière et pratiques en santé*: Vol. 1 : Iss. 1 , Article 4.

DOI: 10.31770/2561-7516.1006

Available at: <http://snahp-sips.ca/journal/vol1/iss1/4>

This Article is brought to you for free and open access by Science of Nursing and Health Practices - Science infirmière et pratiques en santé. It has been accepted for inclusion in Science of Nursing and Health Practices - Science infirmière et pratiques en santé by an authorized editor of Science of Nursing and Health Practices - Science infirmière et pratiques en santé.

Authors

Christine Gervais, Sophie Meunier, Francine deMontigny, and Diane Dubeau

Credentials

Christine Gervais RN PhD

Sophie Meunier PhD

Francine deMontigny RN PhD

Diane Dubeau PhD

Author Mailing Address

Christine Gervais, Inf, Ph.D., FQRS Scholar (Junior 1); Nursing Department, Université du Québec en Outaouais; 5, rue St-Joseph, St-Jérôme (Québec) J7Z 0B7; Email: christine.gervais@uqo.ca; Phone: 1 (800) 567-1283, ext. 4114

Keywords

instrument adaptation; professionals' attitudes; father involvement; family nursing; psychometric testing

Abstract

Introduction: Despite greater father participation in child care/rearing nowadays and the challenge of involving fathers in nursing interventions, no instrument exists to measure professional attitudes toward father involvement in family interventions. **Objectives:** The aim of this study was to adapt an existing measure that assesses nurse attitudes regarding the importance of including families in nursing care into a measure that assesses professionals' attitudes towards the importance of involving fathers in interventions with families. **Method:** The Professionals' Attitudes towards Father Involvement (PAFI) scale was adapted from the Families' Importance in Nursing Care – Nurse Attitudes (FINC-NA) scale. A total of 297 professionals in family care completed the 26 items of the PAFI. **Results:** Items analysis indicated three items had low variability and abnormal distribution. Principal component analysis was conducted with the 23 remaining items. Results revealed a solution with four factors reproducing the structure of the original scale: Father as conversational partner, Father as resource, Father as burden, and Father as own resource. Most items loaded on their original factor. The four subscales and the global scale showed good internal consistency. **Discussion and conclusion:** Even though further studies are needed, this adapted scale now enables researchers and practitioners to assess professionals' attitudes towards the importance of involving fathers in interventions with families.

Résumé

Introduction : Les pères sont de plus en plus engagés auprès de leurs enfants. Plusieurs professionnels, dont les infirmières, peinent à s'adapter à cette nouvelle réalité. Aucune échelle n'existe pour mesurer l'attitude des professionnels par rapport à l'importance d'inclure les pères dans leurs interventions. **Objectifs :** Le but de cette étude est d'adapter une échelle qui mesure les attitudes des infirmières quant à l'importance d'inclure les familles dans leurs soins pour en faire un instrument permettant de mesurer les attitudes des professionnels envers l'importance d'inclure les pères dans leurs interventions auprès des familles. **Méthodes :** L'échelle Attitudes des professionnels envers l'inclusion des pères (APIP) a été adaptée à partir de l'échelle Importance des familles dans les soins infirmiers – Attitudes des infirmières. Au total, 297 professionnels ont répondu aux 26 items de l'échelle APIP. **Résultats :** L'analyse des items révèle que trois d'entre eux présentaient une faible variabilité et une distribution anormale. L'analyse à composantes principales a été effectuée avec les 23 items restants. Les résultats confirment quatre facteurs, reproduisant la structure de l'échelle originale : le père comme partenaire de conversation, le père comme ressource, le père comme fardeau et le père comme ayant ses propres ressources. Les quatre sous-échelles et l'échelle globale ont montré une bonne cohérence interne. **Discussion et conclusion :** Même si d'autres études sont nécessaires, cette échelle adaptée permet maintenant aux chercheurs et aux praticiens de mesurer les attitudes des professionnels quant à l'importance d'impliquer les pères dans leurs interventions auprès des familles.

Mots-clés

adaptation d'instrument; attitudes des professionnels; engagement paternel; soins infirmiers à la famille; analyses psychométriques

BACKGROUND

The past 20 years have seen substantial growth in research that has contributed to important developments in knowledge about and practices with families. Despite these advances in family-focused research, it is clear that mothers are still perceived as the primary parent not only by researchers (Gage, Everett, & Bullock, 2006) and programs (Palm & Fagan, 2008; Potter & Carpenter, 2008), but also by parents themselves (Gervais, de Montigny, Lacharité, & St-Arneault, 2015).

Yet the benefits of father involvement that accrue to all members of the family are now widely documented (Ball & Daly, 2012; Plantin, Olukoya, & Ny, 2011; Sarkadi, Kristiansson, Oberklaid, & Bremberg, 2008). Indeed, a child with two involved parents benefits not only from the resources (financial, emotional, and social) that each provides, but also from a diversity of interactions that enriches the child's development. For example, mothers are more likely to encourage children's emotional expression, whereas fathers are more apt to stimulate their emotional control (Gordon, Oliveros, Hawes, Iwamoto, & Rayford, 2012). Consequently, children with involved fathers display better physical health, stronger cognitive development (Cabrera, Fagan, Wight, & Schadler, 2011), more advanced language skills (Cabrera, Shannon, & Tamis-LeMonda, 2007), and better developed social competencies (Sarkadi et al., 2008) than do other children. Father involvement is also associated with greater conjugal satisfaction among mothers (Nangle, Kelley, Fals-Stewart, & Levant, 2003), as well as reduced maternal stress (Ramonetti, 2007) and less co-parenting conflict (Fagan & Cabrera, 2012). For fathers themselves, it appears that interacting with their child and engaging in roles associated with their fatherhood results in learning about themselves, rethinking their priorities and values, becoming more mature, and redefining themselves as fathers (Ashbourne, Daly, & Brown, 2011).

Health professionals play a key role with fathers. In fact, professionals' attitudes towards fathers and the support they provide to fathers (de Montigny, Gervais, & Dubeau, 2017; Forget, Devault, & Bizot, 2009; Pfitzner, Humphreys, & Hegarty, 2015) can either encourage or impede father involvement. Thus, the support provided to fathers by professionals, such as nurses, social workers and educators, has a positive influence on their involvement with their child (de Montigny & Lacharité, 2008). The simple fact of spending time with a nurse who is interested in them as a parent has the effect of increasing fathers' sense of self-efficacy and parental satisfaction (Magill-Evans, Harrison, Benzies, Gierl, & Kimak, 2007). Including fathers in family interventions can also enhance their self-confidence and parenting practices, as well as reduce conflict between parents and behavioural problems in their children (Frank, Keown, & Sanders, 2015).

Professionals' beliefs and their perceptions regarding parents largely determine the practices and care they implement with families (de Montigny & Lacharité, 2012; Lacharité et al., 2005; Wright & Leahey, 2014). For example, professionals' more positive perceptions of mothers' health, as well as their ease in working with them, often result in their giving mothers priority in their interventions (de Montigny, Devault, Este, Fleurant, & Nascimento, 2011; Lacharité et al., 2005). More recently, we demonstrated the same relationship with respect to fathers: professionals who view fathers positively adopt a more supportive attitude towards including them in their child's care. They inquire about fathers' perceptions, explore their needs and show them ways to take care of their children (de Montigny, Gervais, Meunier, & Dubeau, 2017).

On the other hand, various studies have shown that, too often, there is no encounter between fathers and professionals (de Montigny & Lacharité, 2005; Halle et al., 2008; Wells & Sarkadi, 2012). A recent literature review concluded, in fact, that fathers are neither fully supported nor considered in health services (Wells, 2016). In particular, nurses tend to doubt

fathers' competence to look after their children or to report on their health status (Höglund & Holmström, 2008) and to perceive fathers as being more demanding and difficult to please (Alehagen, Hägg, Kalén-Enterlöv, & Johansson, 2011; Harvey & Pattison, 2013). The study by Massoudi, Wickberg, and Hwang (2011) of 499 nurses revealed that, while they found working with the fathers of children in their care to be a positive experience, the majority did not conceive of fathers as being capable of experiencing distress in their parenting role.

Several reports by nurses regarding their interventions with fathers, presented in the literature, raise questions for us. In particular, nurses have admitted that they give more attention to mother and child and that they establish connections more easily with women than with men (Höglund & Holmström, 2008). They acknowledge that they ask very few questions of the fathers they encounter and pay very little attention to them (Kaila-Behm & Vehviläinen-Julkunen, 2000) and that they rarely offer them support (Massoudi et al., 2011). They do not assess fathers' distress (Hammarlund, Andersson, Tenenbaum, & Sundler, 2015) and do not adapt their visit schedules to encourage fathers' presence (Wells, Varga, Kerstis, & Sarkadi, 2013). While some nurses acknowledge the importance of including fathers in their care, they continue to use mothers' behaviours as their reference for evaluating the involvement and participation of fathers they encounter (Alehagen et al., 2011). These practices run counter to certain basic premises of family nursing, which stress the importance of including every family member in the therapeutic relationship, in the evaluation, and in the interventions carried out (Duhamel, 2015; Leahey & Wright, 2016; Wright & Leahey, 2014). From a wider standpoint, we also know very little about attitudes towards fathers among other professionals that work in collaboration with nurses, as there has been almost no research on this topic. Yet in an interdisciplinary approach, it is important for the family that all team members – not only nurses, but also physicians, social workers and psychologists – share a similar vision.

This gap between desirable and real-life practices highlights the need for a better understanding of the attitudes held by nurses and health professionals, which underlie the family interventions they conduct. In the past 25 years, many measurement instruments have been developed to assess certain family variables (Sawin, 2016), but instruments geared specifically to fathers are scarce (Cosentino, Dermer, & Maucieri, 2014). To our knowledge, no instrument exists for measuring professionals' attitudes regarding the importance of including fathers in their interventions. We therefore chose to build on the widely recognized work of Benzein (2008) and Saveman and colleagues (2011), who focused on measuring nurses' attitudes regarding the importance of families in their care. To do this, our team adapted the Families' Importance in Nursing Care – Nurses' Attitudes (FINC-NA) instrument to measure health professionals' attitudes towards including fathers in their interventions.

AIM

The aim of this study was to adapt an existing measure that assesses nurse attitudes regarding the importance of including families in nursing care (FINC-NA) into a measure that assesses professionals' attitudes regarding the importance of involving fathers in interventions with families (PAFI). This study also tested the psychometric properties of the adapted scale.

METHOD

CONSTRUCTION OF THE INSTRUMENT

The FINC-NA was used as foundation to create the Professionals' Attitudes towards Father Inclusion (PAFI) scale. The FINC-NA was developed by a team of Swedish researchers in family nursing to measure nurses' attitudes regarding the importance of involving families in care. Developed inductively following an exhaustive literature review, it was validated by 634 Swedish nurses in 2004–2005 (Benzein, Johansson,

Årestedt, Berg, & Saveman, 2008) and later refined in 2009 by 246 master's level student nurses (Saveman, Benzein, Engström, & Årestedt, 2011). Our team used the guidelines developed by Guillemin, Bombardier, and Beaton (1993) to structure the stages of adapting the FINC-NA.

1. *Translation.* As recommended by Guillemin et al. (1993), the FINC-NA was first translated into French (for use in Quebec) by two independent translators – a professional translator and a bilingual nurse with several years of expertise in family nursing. The translations were then compared by a committee of four experts from different disciplines who had clinical expertise in working with families as well as research expertise.

2. *Back-translation.* As the translations were very similar, the committee selected the one most suited to the cultural context of Quebec and sent it to a third translator for back-translation into English, in the aim of improving the quality of the final version and to avoid ambiguity in the statements. Because the back-translated version was faithful to the original, the expert committee concluded that the French version of the scale retained the sensitivity and validity of the original English version.

3. *Committee review.* The expert committee then met to adapt the items of the scale to measure professionals' attitudes regarding the importance of involving fathers in their interventions with families. Each item of the FINC-NA was modified to focus on fathers rather than on family members. To broaden the potential use of the scale and to adapt it to the Quebec cultural context, the word "nurse" was replaced by the word "practitioner". Three items were modified to make the statements clearer and to make them more suited to the importance of father inclusion (item 9 – *The presence of family members is important for the family members themselves*; item 13 – *I always find out what family members a patient has*; and item 16 – *It is important to find out what family members a patient has*). As in the FINC-NA, participants were asked to indicate their level of agreement with each of the 26 items on a 5-point Likert-type scale ranging from 1 = *totally disagree* to 5 = *totally agree*. A high score indicated a more positive

attitude regarding the importance of father involvement.

4. *Pre-testing.* The adapted modified 26-item scale was pretested with 40 professionals in various fields (health, social services, community services). Small changes were made to the wording of some items to make them clearer before the adapted scale was validated in a larger sample of practitioners.

SAMPLE AND PROCEDURE

The adapted scale was validated as part of the evaluation of the Father Friendly Initiative within Families (FFIF) project, a large research project aimed at encouraging fathers' involvement in the early stages of their child's life (0–5 years) (de Montigny, Gervais, & Dubeau, 2017; Gervais, de Montigny, Lacharité, & Dubeau, 2015). It was approved by the Research Ethics Board of the university where the main author is affiliated. Professionals were recruited for the study through different health and social services organizations in three regions of Quebec (Outaouais, Laurentides, Montérégie) that included urban, semi-urban, and rural settings. Managers shared information about the project with their staff, and interested parties signed up voluntarily. To participate in the study, professionals 1) had not to have received prior sensitivity training regarding the importance of fathers' involvement; 2) had to be actively working with families with children aged five years and under; and 3) had to be able to understand and read French. All participants signed a consent form after having the project explained to them.

STATISTICAL ANALYSIS

Statistical analyses were performed using SPSS 22. Descriptive statistics were obtained first to characterize the sample. Mean, standard deviation, and range were determined for each item. Normality was assessed by checking skewness and kurtosis indices; a value between 2 and -2 was considered satisfactory in both cases (George & Mallery, 2010). To examine the structure of the adapted scale, an exploratory factor analysis was performed. Principal

component analysis with varimax rotation was applied. The Kaiser-Meyer-Olkin (KMO) index and Bartlett's sphericity test were used to verify sampling adequacy for principal component analysis. The number of factors was determined through a scree plot and eigenvalues (> 1). Finally, Cronbach's alphas were calculated to assess the subscales' reliability.

RESULTS

SAMPLE CHARACTERISTICS

A total of 297 professionals completed a self-report questionnaire covering demographics, work experience, educational attainment, and more. Table 1 presents all the sample characteristics. Participants were 20 to 65 years of age ($M = 39$, $SD = 9.95$). Most were women, married or living in common law partnership), and had children. They mostly worked in the fields of health and social services, but also in education, community services, and nursing management. More than one-third of the participants ($n = 110$; 37%) were nurses. In the course of their work, one-third had rare or occasional contacts with fathers, one-third had brief and regular contacts with fathers, and one-third had frequent and prolonged contacts with fathers. Almost half of the participants had 10 years and less of work experience, a quarter had 11 to 20 years, and another quarter had more than 20. Nearly two-thirds of participants had at least an undergraduate university degree (16 years of schooling).

DESCRIPTIVE STATISTICS

Table 2 gives the descriptive statistics and the normality values for each item. All items appeared well-distributed except for three in the "Father as resource" subscale (items 4, 5 and 9). Skewness and kurtosis indices for these fell outside the +2 to -2 range, reflecting a non-normal distribution. An analysis of the distribution of responses indicated that almost every participant agreed or totally agreed with those three statements. Given this low variability, they were considered likely to

Table 1
Sample Characteristics

	N (%) [*]
Sex	
Female	268 (90.2)
Male	26 (8.8)
Age	
20-35 years old	108 (39.9)
36-50 years old	122 (45.0)
51-65 years old	41 (15.1)
Marital status	
Single	70 (23.6)
In relationship	225 (75.7)
Children	
No	59 (19.9)
Yes	235 (79.1)
Fields of work	
Health (medicine, nursing, nutrition)	125 (42.1)
Social services (psychology, social work, psychoeducation)	72 (24.2)
Education	53 (17.8)
Community services	38 (12.8)
Management	4 (1.3)
Years of experience	
0-10	127 (42.8)
11-20	84 (28.3)
More than 20	81 (27.3)
Education level	
High school or college	92 (30.9)
University	186 (62.6)
Contact with fathers	
Rare and occasional	95 (32.0)
Regular and brief	103 (34.7)
Frequent and prolonged	96 (32.3)

^{*}Due to missing data, percentages may not add up to 100%

Table 2*Items: Description, Distribution, and Normality¹*

	Min	Max	Mean	SD	Skewness	Kurtosis
Father as resource						
1. The father's presence eases my workload	2	5	4.17	0.72	-0.60	0.18
2. The father's presence gives me a feeling of security	1	5	3.17	0.95	-0.32	-0.30
3. The father's presence is important to me as a professional	2	5	4.57	0.64	-1.68	3.61
4. The father should be invited to take part actively in his child's care	3	5	4.89	0.32	-2.89	7.58
5. The father should be invited to take part actively in planning his child's care	3	5	4.87	0.35	-2.71	6.82
6. A good relationship with the father gives me job satisfaction	1	5	4.45	0.69	-1.40	2.87
7. Getting involved with the father gives me a feeling of being useful	1	5	4.21	0.85	-1.07	1.06
8. I gain a lot of worthwhile knowledge from fathers that I can use in my work	1	5	4.02	0.80	-0.55	0.15
9. The father's presence is important for his child and his spouse	3	5	4.85	0.39	-2.65	6.68
10. It is important to spend time with the father	3	5	4.63	0.51	-0.85	-0.58
Father as conversational partner						
11. I invite the father to have a conversation with me at the end of the care period	1	5	4.06	0.79	-0.60	0.22
12. I invite the father to take part in discussions from the very first contact	1	5	4.49	0.69	-1.53	3.14
13. I always try to find out who is the child's father	1	5	4.24	0.93	-1.47	2.28
14. I invite the father to talk about changes in the child's condition	2	5	4.28	0.68	-0.77	0.73
15. I invite the father to speak when planning the child's care and the intervention	2	5	4.42	0.62	-0.78	0.50
16. It is important for me to learn about the father of the child with whom I intervene	1	5	4.23	0.75	-0.82	0.75
17. I invite the father to take part actively in the child's care	1	5	4.49	0.60	-1.23	3.49
18. Discussion with the father during first care contact saves time in my future work	1	5	3.86	0.91	-0.45	-0.33
Father as burden						
19. The father's presence makes me feel that he is checking up on me	1	5	2.02	0.92	0.80	0.09
20. The father's presence makes me feel stressed	1	5	1.75	0.78	0.95	0.88

¹ Items of the original scale were written in French. They were translated for the purpose of this article. Further validation is required for the English version of the scale. The original French version may be obtained from the corresponding author.

21. The father's presence holds me back in my work	1	3	1.47	0.56	0.67	-0.60
22. I don't have time to take care of the father	1	4	1.38	0.55	1.36	2.30
Father as own resource						
23. I encourage the father to use his own resources so that he has the best potential to cope with situations on his own	1	5	3.89	0.81	-0.51	0.31
24. I see myself as a resource for the father so that he can cope as well as possible with his situation	2	5	4.09	0.76	-0.79	0.74
25. I consider the father as a cooperating partner	2	5	4.47	0.66	-1.09	0.99
26. I ask the father how I can support him	2	5	4.03	0.84	-0.60	-0.22

cause problems in the factor analysis and were therefore excluded from the principal component analysis.

PRINCIPAL COMPONENT ANALYSIS

A principal component analysis with varimax rotation was run on the 23 remaining items. The KMO index (0.81) was "meritorious" (Hutcheson & Sofroniou, 1999) and Bartlett's sphericity test was significant, indicating that the data could be factorized.

Eigenvalues suggested a solution with six factors explaining 58.14% of the variance. However, two factors in this solution had only two items each. Also, the scree plot suggested a solution with four or five factors. Since the original scale (FINC-NA) used to create the PAFI had four factors, a principal component analysis forcing four factors was performed and this solution, presented in Table 3, explained 49.06% of the variance. As presented in Table 3, Factor 1, the "Father as conversational partner" subscale, explained 24.26% of the variance. Factor 2, the "Father as resource" subscale, explained 10.60% of the variance. Factor 3, the "Father as burden" subscale, explained 8.34% of the variance. Factor 4, the "Father as own resource" subscale, explained 5.86% of the variance. When an item loaded on two different factors (e.g., items 8, 11, and 26), the highest loading was considered. Factor loadings indicated that most items loaded on their original factor, except for items 18

(*Discussion with the father during first care contact saves time in my future work*) and 25 (*I consider fathers as cooperating partners*), which loaded on the "Father as resource" factor rather than on their original factors (respectively, "Father as conversational partner" and "Father as own resource"). Further examination of these two items revealed that they related to ways in which professionals can see fathers as a resource in their work (i.e., discussion with fathers saves time (item 18) and fathers seen as cooperating partners (item 25)). These two items were thus moved to the "Father as a resource" factor. With these two new items, this subscale showed satisfactory reliability with a Cronbach's alpha of .76. The "Father as conversational partner", "Father as burden", and "Father as own resource" subscales had similar reliability indices, with Cronbach's alphas of .78, .71, and .67, respectively. The global scale, which encompassed the 23 items, also showed high internal consistency ($\alpha = .85$). As indicated in Table 4, each subscale was significantly associated with the total score, while correlations between subscales were moderate ($r = -.12$ to $.53$), supporting the fact that they each measured a different facet of professionals' attitudes regarding the importance of father involvement.

Table 3
Principal Factor Analysis with Varimax Rotation

	1	2	3	4
Father as conversational partner				
11. I invite the father to have a conversation with me at the end of the care period	.440	.416		
12. I ask the father to take part in discussions from the very first contact	.655			
13. I always try to find out who is the child's father	.656			
14. I invite the father to talk about changes in the child's condition	.751			
15. I invite the father to speak when planning the child's care and the intervention	.684			
16. It is important for me to learn about the father of the child with whom I intervene	.460			
17. I invite the father to take part actively in the child's care	.673			
18. Discussion with the father during first care contact saves time in my future work		.412		
Father as resource				
1. The father's presence eases my workload		.444	-.448	
2. The father's presence gives me a feeling of security		.611		
3. The father's presence is important to me as a professional		.420		
6. A good relationship with the father gives me job satisfaction		.717		
7. Getting involved with the father gives me a feeling of being useful		.802		
8. I gain a lot of worthwhile knowledge from fathers that I can use in my work		.478		.463
10. It is important to spend time with the father		.544		
Father as burden				
19. The father's presence makes me feel that he is checking up on me			.718	
20. The father's presence makes me feel stressed			.784	
21. The father's presence holds me back in my work			.724	
22. I don't have time to take care of the father			.531	
Father as own resource				
23. I encourage the father to use his own resources so that he has the best potential to cope with situations on his own				.755
24. I see myself as a resource for the father so that he can cope as well as possible with his situation				.460
25. I consider the father as a cooperating partner		.478		
26. I ask the father how I can support him	.413			.567

To facilitate interpretation, factor loadings <.40 have been deleted from the table.

Table 4
Internal Consistency and Correlations between Subscales

	α	1	2	3	4
1. Father as conversational partner	.78				
2. Father as resource	.76	.429**			
3. Father as burden	.71	-.254**	-.115		
4. Father as own resource	.67	.533**	.373**	-.267**	
5. Total scale	.85	.790**	.786**	-.479**	.699**

**p < .01

DISCUSSION

The aim of this study was to adapt an existing measure (FINC-NA) of nurse attitudes regarding the importance of family involvement in nursing care into a measure of the attitudes of various professionals toward father involvement in family interventions. The standardized guidelines developed by Guillemain et al. (1993) steered the translation and cultural adaptation of the initial instrument used as the basis for developing the Professionals' Attitudes towards Father Involvement (PAFI) scale. The PAFI's psychometric properties were confirmed through a validation process involving a large sample of 297 practitioners from a variety of disciplines and sectors.

The analyses performed showed the psychometric properties of the PAFI to be similar to those of the original FINC-NA scale. Factor loadings indicated that most items loaded on their original factor, except for items 18 (*Discussion with the father during first care contact saves time in my future work*) and 25 (*I consider the father as a cooperating partner*), which loaded on the "Father as resource" factor rather than on their original factors (respectively, "Father as conversational partner" and "Father as own resource"). Principal component analysis revealed that the four subscales corresponding to those of the initial scale ("Father as conversational

partner", "Father as resource", "Father as burden", and "Father as own resource") explained 49.06% of the variance in professional attitudes toward father involvement in family interventions. The four subscales of the initial scale explained 44.9% of the variance in nurses attitudes toward family involvement in nursing care (Benzein et al., 2008).

A non-normal distribution and low variability were noted for three items of the "Father as resource" subscale (items 4, 5 and 9), shortcomings also identified in the original scale (Saveman et al., 2011). Just as the nurses seemed to believe it would be inappropriate not to recognize the importance of family involvement in nursing care (Saveman et al., 2011; Saveman, Måhlén, & Benzein, 2005), it appeared that the professionals in our sample were nearly unanimous in their perception of fathers as a resource in family interventions. We found these results to be questionable, as they are at odds with the results of early qualitative studies of ours carried out with professionals. These had revealed varied but mostly negative perceptions of fathers, as well as a certain uneasiness among practitioners about including fathers in their interventions with mothers or children (de Montigny & Lacharité, 2012; Dubeau, de Montigny, Devault, Lacharité, & Turcotte, 2016; Lacharité et al., 2005; St-Arneault, 2013). The low variability of some items could also be due to a social desirability bias stemming from the current Quebec context, in which father involvement is socially valued and has been integrated

progressively into health and social policies (Conseil de la famille et de l'enfance, 2008; Conseil du statut de la femme, 2015; MSSS, 2008).

The primary strength of this study is its innovativeness. To our knowledge, no scale existed to measure professionals' perceptions of the importance of father involvement. At a time when father involvement in child rearing and in the reception of services is on the rise in much of the Western world (Levtov, Van der Gaag, Grenne, Kaufman, & Barker, 2015), measuring professionals' attitudes toward this new social reality will be useful not only for managers but also for researchers interested in professional practices with fathers (de Montigny, Gervais, Meunier et Dubeau, 2017). Another strength of the study is that the scale was validated among professionals from different disciplines. This may broaden its utility in today's context, where families with a child with health or developmental problems come into contact with several different professionals. For this reason, ensuring consistency and continuity of support for father involvement has become a topical issue (Forget, 2009).

This study presents several limitations. First, shifting the focus of the instrument from the family to an individual might have undermined the theoretical foundation of the original scale. The FINC-NA had a strong theoretical model based on systems theory and family-centred nursing. While the adapted scale focuses specifically on an individual family member, the father, we sought to protect the theoretical foundation of the scale by considering the father interacting with his family. This way, the scale would still be respectful of systems theory, insofar as changing one part of the system affects the system as a whole (Wright & Leahey, 2014). Although the adapted scale is conceptually different from the FINC-NA, our review of the literature substantiates the need for an innovative measure that takes account of fathers and their relationship with their children.

Second, given the small proportion of male professionals in the sample, it is not possible to determine whether the PAFI is sufficiently sensitive to capture differences in attitudes between male and female professionals regarding

the importance of involving fathers in family interventions. Given that other studies have demonstrated that male professionals tend to perceive fathers more negatively than do their female colleagues (de Montigny, Gervais, Dubeau et Lanoue, 2017; de Montigny & Lacharité, 2012; Lacharité et al., 2005), it would be useful to validate the PAFI in a cohort of professionals with a much larger proportion of males. To increase the potential use of this scale, it would also be important to test its stability over time to determine whether it can be used in pretest-posttest designs to measure the effects of educational or awareness-raising interventions targeting professionals.

CONCLUSION

As a result of the social movement promoting father involvement, fathers are becoming increasingly involved with their children and more present in health services. This new reality can be destabilizing for nurses and other professionals, and little is known about professionals' own experience of working with fathers and how well they cope with this new reality (de Montigny, Gervais, Dubeau et Lanoue, 2017). Until now, there had been no instrument available to measure professionals' attitudes regarding the importance of father involvement. The Professionals' Attitude towards Father Involvement (PAFI) scale is a useful advance in this respect. Presenting good psychometric qualities, this questionnaire can be used to measure the attitudes of different types of professionals towards involving fathers in family interventions. Further, the PAFI can be used by researchers to explore the reasons underlying professionals' attitudes towards fathers. Our previous work revealed that it is easier to implement father-inclusive practices when professionals hold positive beliefs about fathers (de Montigny, Gervais, Dubeau, & Lanoue, 2017). In this regard, the PAFI scale can be used as a pre/post measure to evaluate the effects of father-inclusive workshops. Finally, this questionnaire could be useful in practice to examine professionals' attitudes towards facilitating father involvement

in family care. This knowledge could lead to improved interdisciplinary and inter-sector approaches to involve fathers in family interventions. The PAFI scale could therefore be useful to develop future interventions, research and policies in this regard.

Contribution of authors: All the authors made a substantial contribution to the study in one or more of the following manners: 1) designing the study and interpreting the data; 2) critically reviewing the article for important intellectual content; and 3) granting final approval of the version to be published after bringing their own perspective and knowledge to bear upon it. All the authors have reviewed the manuscript and all enjoy a right of intellectual property over it.

Acknowledgements: The authors would like to thank the participating professionals, as well as the research assistants who were involved in data collection and data entry. They are also grateful to the authors of the FINC-NA for allowing this adaptation of their family centered scale.

Funding sources: This work was supported by a grant from Avenir d'enfants.

Conflicts of interest: The authors have no conflicts of interest to declare.

Ethics certificate number: # CER-12-184-04-04.01

REFERENCES

- Alehagen, S., Hägg, M., Kalén-Enterlöv, M., & Johansson, A. (2011). Experiences of community health nurses regarding father participation in child health care. *Journal of Child Health Care, 15*(3), 153–162. <http://doi.org/10.1177/1367493511403952>
- Ashbourne, L. M., Daly, K. J., & Brown, J. L. (2011). Responsiveness in father-child relationships: the experience of fathers. *Fathering, 9*(1), 69–86. <http://doi.org/10.3149/ft.0901.69>
- Ball, J., & Daly, K. (2012). *Father involvement in Canada: Diversity, renewal, and transformation*. Vancouver, BC: UBC Press.
- Benzein, E., Johansson, P., Årestedt, K., Berg, A., & Saveman, B.-I. (2008). Families' importance in nursing care: nurses' attitudes – an instrument development. *Journal of Family Nursing, 14*(1), 97–117. <http://doi.org/10.1177/1074840707312716>
- Cabrera, N. J., Fagan, J., Wight, V., & Schadler, C. (2011). Influence of mother, father, and child risk on parenting and children's cognitive and social behaviors. *Child Development, 82*(6), 1985–2005. <http://doi.org/10.1111/j.1467-8624.2011.01667.x>
- Cabrera, N. J., Shannon, J. D., & Tamis-LeMonda, C. (2007). Fathers' influence on their children's cognitive and emotional development: from toddlers to pre-K. *Applied Development Science, 11*(4), 208–213. <http://doi.org/10.1080/10888690701762100>
- Conseil de la famille et de l'enfance. (2008). *L'engagement des pères : le rapport 2007-2008 sur la situation et les besoins des familles et des enfants*. Québec, QC : Conseil de la famille et de l'enfance. Available at: https://www.mfa.gouv.qc.ca/fr/publication/Documents/cfe_rapp_engagement-peres_web5.pdf (accessed on June 23, 2017).
- Conseil du statut de la femme. (2015). *Pour un partage équitable du congé parental*. Québec, QC : Gouvernement du Québec. Available at: https://www.csf.gouv.qc.ca/wp-content/uploads/avis_partage_conge_parental.pdf (accessed on June 23, 2017).
- Cosentino, A., Dermer, S., & Maucieri, L. (2014). Myths and attitudes about fathers scale : developing a scale to determine myths about fatherhood. *Counseling Outcome Research and Evaluation, 5*(2), 102–115. <http://doi.org/10.1177/2150137814551824>
- de Montigny, F., Devault, A., Este, D., Fleurant, A., & Nascimento, L. C. (2011). Nursing students' perceptions of their experiences with fathers during their family nursing clinical practicum. *Texto & Contexto - Enfermagem, 20*(4), 649–657. <http://dx.doi.org/10.1590/S0104-07072011000400002>
- de Montigny, F., Gervais, C., & Dubeau, D. (2017). Le projet québécois « Initiative amis des pères au sein des familles » : agir tôt sur la santé de la famille en soutenant l'engagement paternel [“The Father Friendly Initiative within Families” in Québec: early action to foster family health by supporting paternal involvement]. In N. Glangeau-Freudenthal & F. Gressier (Dir.), *Accueillir les pères en périnatalité. [Welcoming fathers in the perinatal period]*. Cahier Marcé N° 7. (pp. 241–256). Toulouse : Éditions Érès.
- de Montigny, F., Gervais, C., Dubeau, D., & Lanoue, C. (2017). *Rapport final d'évaluation du projet Initiative Amis des pères au sein des familles, 2012-2017*. Gatineau, Qc : IAP / UQO.
- de Montigny, F., Gervais, C., Meunier, S., & Dubeau, D. (2017). Professionals' positive perceptions of fathers are associated with more favourable attitudes towards including them in family interventions. *Acta Paediatrica, 1–7*. <http://doi.org/10.1111/apa.13970>
- de Montigny, F., & Lacharité, C. (2005). Devenir père: un portrait des premiers moments. *Enfances, Familles, Générations, 3*(3), 40–55. <http://doi.org/10.7202/012535ar>
- de Montigny, F., & Lacharité, C. (2008). Modeling parents and nurses' relationships. *Western Journal of Nursing Research, 30*(6), 743–758.

- <http://doi.org/10.1177/0193945907312978>
- de Montigny, F., & Lacharité, C. (2012). Perceptions des professionnels de leurs pratiques auprès des parents de jeunes enfants (Professionals' perceptions of their practices towards parents of young children). *Enfances, Familles, Générations*, 16, 53–73. <http://doi.org/10.7202/1012801ar>
- Dubeau, D., de Montigny, F., Devault, A., Lacharité, C., & Turcotte, G. (2016). Accompagner les pères en contexte de vulnérabilité. Des services au rendez-vous, adéquats et efficaces. *Défi Jeunesse*, XXII(2), 29–38.
- Duhamel, F. (Ed.) (2015). *La santé et la famille: une approche systémique en soins infirmiers* (3rd ed.). Montréal, QC: Chenelière Éducation.
- Fagan, J., & Cabrera, N. (2012). Longitudinal and reciprocal associations between coparenting conflict and father engagement. *Journal of Family Psychology*, 26(6), 1004–1011. <http://doi.org/10.1037/a0029998>
- Forget, G. (2009). La promotion de l'engagement paternel, des archétypes à transformer, une pratique à construire. *Reflète*, 15(1), 79–101. <http://doi.org/10.7202/029588ar>
- Forget, G., Devault, A., & Bizot, D. (2009). Des pratiques exemplaires pour soutenir l'engagement paternel. In D. Dubeau, A. Devault, & G. Forget (Eds.), *La paternité au XXIe siècle* (pp. 221–236). Québec, QC: Presses de l'Université Laval.
- Frank, T. J., Keown, L. J., & Sanders, M. R. (2015). Enhancing father engagement and interparental teamwork in an evidence-based parenting intervention: a randomized-controlled trial of outcomes and processes. *Behavior Therapy*, 46(6), 749–763. <http://doi.org/10.1016/j.beth.2015.05.008>
- Gage, J. D., Everett, K. D., & Bullock, L. (2006). Integrative review of parenting in nursing research. *Journal of Nursing Scholarship*, 38(1), 56–62.
- George, D., & Mallery, M. (2010). *SPSS for Windows Step by Step: A Simple Guide and Reference, 17.0 update*. (10th ed.). Boston: Pearson.
- Gervais, C., de Montigny, F., Lacharité, C., & Dubeau, D. (2015). The Father friendly initiative within families: using a logic model to develop program theory for a father support program. *Evaluation and Program Planning*, 52, 133–141. <http://doi.org/10.1016/j.evalprogplan.2015.04.006>
- Gervais, C., de Montigny, F., Lacharité, C., & St-Arneault, K. (2015). Where fathers fit in Quebec's perinatal health care services system and what they need. *Psychology of Men & Masculinity*, 17(2), 126–136. <http://doi.org/http://dx.doi.org/10.1037/a0039558>
- Gordon, D. M., Oliveros, A., Hawes, S. W., Iwamoto, D. K., & Rayford, B. S. (2012). Engaging fathers in child protection services: a review of factors and strategies across ecological systems. *Children and Youth Services Review*, 34(8), 1399–1417. <http://doi.org/10.1016/j.childyouth.2012.03.021>
- Guillemin, F., Bombardier, C., & Beaton, D. (1993). Cross-cultural adaptation of health-related quality of life measures: literature review and proposed guidelines. *Journal of Clinical Epidemiology*, 46(12), 1417–1432.
- Halle, C., Dowd, T., Fowler, C., Rissel, K., Hennessy, K., MacNevin, R., & Nelson, M. A. (2008). Supporting fathers in the transition to parenthood. *Contemporary Nurse*, 31(1), 57–70. <http://doi.org/10.5172/conu.673.31.1.57>
- Hammarlund, K., Andersson, E., Tenenbaum, H., & Sundler, A. J. (2015). We are also interested in how fathers feel: a qualitative exploration of child health center nurses' recognition of postnatal depression in fathers. *BMC Pregnancy and Childbirth*, 15, 290. <http://doi.org/10.1186/s12884-015-0726-6>
- Harvey, M. E., & Pattison, H. M. (2013). The impact of a father's presence during newborn resuscitation: a qualitative interview study with healthcare professionals. *BMJ Open*, 3(3), e002547. <http://doi.org/10.1136/bmjopen-2013-002547>
- Höglund, A. T., & Holmström, I. (2008). 'It's easier to talk to a woman'. Aspects of gender in Swedish tele-nursing. *Journal of Clinical Nursing*, 17(22), 2979–2986. <http://doi.org/10.1111/j.13652702.2008.02345.x>
- Hutcheson, G. D., & Sofroniou, N. (1999). *The Multivariate Social Scientist: Introductory Statistics Using Generalized Linear Models*. London: Sage Publications.
- Kaila-Behm, A., & Vehviläinen-Julkunen, K. (2000). Ways of being a father: how first-time fathers and public health nurses perceive men as fathers. *International Journal of Nursing Studies*, 37(3), 199–205. [http://doi.org/10.1016/S0020-7489\(00\)00002-X](http://doi.org/10.1016/S0020-7489(00)00002-X)
- Lacharité, C., de Montigny, F., Miron, J.-M., Devault, A., Larouche, H., & Desmet, S. (2005). *Les services offerts aux familles à risque ou en difficulté: modèles conceptuels, stratégies d'action et réponses aux besoins des parents* [Services provided to families at risk or in difficulty. Conceptual models, action strategies, and responses to parents' needs]. Trois-Rivières, QC: Groupe de recherche en développement de l'enfant et de la famille. Available at: [http://cerif.uqo.ca/sites/cerif.uqo.ca/files/Lacharite\(2005\)\(accessed on April 4, 2017\)](http://cerif.uqo.ca/sites/cerif.uqo.ca/files/Lacharite(2005)(accessed on April 4, 2017)).
- Leahey, M., & Wright, L. M. (2016). Application of the Calgary Family Assessment and Intervention Models: reflections on the reciprocity between the personal and the professional. *Journal of Family Nursing*, 22(4), 450–459. <http://doi.org/10.1177/1074840716667972>
- Levtov, R., Van der Gaag, N., Grenne, M., Kaufman, M., & Barker, G. (2015). *State of the World's Fathers: a MenCare Advocacy Publication*. Washington, DC: Promundo, Rutgers, Save the Children, Sonke Gender Justice, and the MenEngage Alliance. Available at: https://sowf.men-care.org/wp-content/uploads/sites/4/2015/06/State-of-the-Worlds-Fathers_23June2015-1.pdf (accessed on June

- 23, 2017).
- Magill-Evans, J., Harrison, M. J., Benzie, K., Gierl, M., & Kimak, C. (2007). Effects of parenting education on first-time fathers' skills in interactions with their infants. *Fathering*, 5(1), 42–57. <http://doi.org/10.3149/fth.0501.42>
- Massoudi, P., Wickberg, B., & Hwang, C. P. (2011). Fathers' involvement in Swedish child health care – The role of nurses' practices and attitudes. *Acta Paediatrica*, 100(3), 396–401. <http://doi.org/10.1111/j.1651-2227.2010.02047.x>
- MSSS. (2008). Politique de périnatalité 2008–2018: un projet porteur de vie [Perinatal healthcare policy 2008–2018: a life-giving project]. Québec, QC : Ministère de la Santé et des Services sociaux, 2008. Available at: <http://publications.msss.gouv.qc.ca/acrobat/f/documentation/2008/08-918-01.pdf> (accessed on April 4, 2017).
- Nangle, S. M., Kelley, M. L., Fals-Stewart, W., & Levant, R. F. (2003). Work and family variables as related to paternal engagement, responsibility, and accessibility in dual-earner couples with young children. *Fathering*, 1(1), 71–90. <http://doi.org/10.3149/fth.0101.71>
- Palm, G., & Fagan, J. (2008). Father involvement in early childhood programs: review of the literature. *Early Child Development and Care*, 178(7–8), 745–759. <http://doi.org/10.1080/03004430802352137>
- Pfitzner, N., Humphreys, C., & Hegarty, K. (2015). Research review: Engaging men: a multi-level model to support father engagement. *Child & Family Social Work*, 22(1), 537–547. <http://doi.org/http://dx.doi.org/10.1111/cfs.12250>
- Plantin, L., Olukoya, A. A., & Ny, P. (2011). Positive health outcomes of fathers' involvement in pregnancy and childbirth paternal support: a scope study literature review. *Fathering*, 9(1), 87–102. <http://doi.org/10.3149/fth.0901.87>
- Potter, C., & Carpenter, J. (2008). “Something in it for dads”: getting fathers involved with Sure Start. *Early Child Development and Care*, 178(7–8), 761–772. <http://doi.org/10.1080/03004430802352152>
- Ramonetti, D. A. (2007). The impact of paternal involvement on maternal well-being and marital satisfaction. *Dissertation Abstracts International: Section B: The Sciences and Engineering*, 68, 2716.
- Sarkadi, A., Kristiansson, R., Oberklaid, F., & Bremberg, S. (2008). Fathers' involvement and children's developmental outcomes: a systematic review of longitudinal studies. *Acta Paediatrica*, 97(2), 153–158. <http://doi.org/10.1111/j.1651-2227.2007.00572.x>
- Saveman, B.-I., Benzein, E. G., Engström, Å. H., & Årestedt, K. (2011). Refinement and psychometric reevaluation of the instrument: Families' importance in nursing care – nurses' attitudes. *Journal of Family Nursing*, 17(3), 312–329. <http://doi.org/10.1177/1074840711415074>
- Saveman, B.-I., Måhlén, C. D., & Benzein, E. G. (2005). Nursing students' beliefs about families in nursing care. *Nurse Education Today*, 25(6), 480–486. <http://doi.org/10.1016/j.nedt.2005.05.002>
- Sawin, K. J. (2016). Measurement in family nursing: established instruments and new directions. *Journal of Family Nursing*, 22(3), 287–297. <http://doi.org/10.1177/1074840716656038>
- St-Arneault, K. (2013). *Perceptions des intervenants de leurs pratiques professionnelles à l'égard des pères dans le cadre des services intégrés en périnatalité et pour la petite enfance* [Practitioners' perceptions of their professional practices towards fathers in the context of integrated perinatal and early childhood services]. Unpublished master's thesis. Gatineau, QC: Université du Québec en Outaouais. Available at: <http://di.uqo.ca/607/> (accessed on April 4, 2017).
- Wells, M. B. (2016). Literature review shows that fathers are still not receiving the support they want and need from Swedish child health professionals. *Acta Paediatrica*, 105(9), 1014–1023. <http://doi.org/10.1111/apa.13501>
- Wells, M. B., & Sarkadi, A. (2012). Do father-friendly policies promote father-friendly child-rearing practices? A review of Swedish parental leave and child health centers. *Journal of Child Family Studies*, 21(1), 25–31. <http://doi.org/10.1007/s10826-011-9487-7>
- Wells, M. B., Varga, G., Kerstis, B., & Sarkadi, A. (2013). Swedish child health nurses' views of early father involvement: a qualitative study. *Acta Paediatrica*, 102(7), 755–761. <http://doi.org/10.1111/apa.12246>
- Wright, L., & Leahey, M. (2014). *L'infirmière et la famille. Guide d'évaluation et d'intervention*. (4^e éd.). Montréal : Éditions du nouveau pédagogie.