

Everyday Life for First-Time Fathers During Pregnancy and After the Baby is Born

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ABSTRACT

Becoming a father is one of the most significant events in a man's life, bringing with major changes, emotions and challenges. The concept of fatherhood has modernized towards a more diverse and involved fatherhood instead of a narrow-minded concept. Despite this, the role of fathers as equal parents is not yet recognized well enough in the healthcare system. This study aims to describe the experiences of first-time fathers during pregnancy and the first eight months of their baby's life. The study is part of an international longitudinal study for first time parents in Finland and Japan. The survey used the Japanese version of Family Function Scale (FFS) and Sense of Parenting Burden Scale (Burden). The data were analyzed by statistical methods. We present here the results of Finnish fathers (N=79). The study is part of an international longitudinal study in Finland and Japan.

The survey used the Japanese version of Family Function Scale (FFS) and Sense of Parenting Burden Scale (Burden). The data were analyzed by statistical methods. Fathers assess family functioning as fairly good during pregnancy and after the birth of the baby. Fathers assess the sense of parenting burden increasing statistically significantly during the first eight months of the baby's life. Although fathers assess family functioning, and their experience of the burden as fairly good, they need support in parenting and fatherhood, especially considering the slightly growing burden.

Keywords: father, family functioning, everyday life, burden, baby family time.

INTRODUCTION

In recent years, there has been an effort to develop pregnancy and maternity care to meet the needs of the whole family. Instead of focusing only on mothers and children, efforts are being made to take fathers into greater consideration (1). The concept of fatherhood has modernized towards a more diverse and participatory fatherhood instead of a narrow perspective (1-3). Today, most fathers are more actively involved in the care and upbringing of children and family life. Fathers also view their fatherhood and the expectations associated with it in a diverse way (4). Despite this, fathers can feel excluded from healthcare services related to pregnancy, childbirth and baby care (1, 5-6). Social awareness of parenting and gender equality could help shift the focus from motherhood and fatherhood to parenthood. It could also lead families to consider stereotypical roles between mothers and fathers and a more equal distribution of parental leave, with both parents spending time at home with the child as the primary parent to develop parenting skills and get to know the child (7).

Healthcare system typically supports mothers more than fathers. Involving fathers more extensively in healthcare, both during prenatal and postpartum visits, increases fathers' sense of involvement and promotes equal roles in the family (8-10). More attention should be paid to prenatal family support, as for example, mental health problems experienced during pregnancy also predict later symptoms (11). However, fathers feel that their role as an equal parent is not sufficiently recognized in the healthcare system, which can lead to feelings of insecurity and exclusion (12). Fathers often experience a challenge in preparing for fatherhood as the information, resources and support targeted at them are not available in the same way as mothers. They may tend to downplay the challenges they experience, and the support needs they need because they believe they undermine the support provided to mothers and they want to prioritize the mothers' needs (5, 12).

The content of fatherhood has diversified, and fatherhood now includes traditional and renewed fatherhood roles. In addition to the traditional provider role, these roles now include caring and raising the child and expecting the father to be present (4). However, many fathers feel that their role as an equal parent is not sufficiently recognized in the healthcare system (12-13). They may feel excluded from services because targeted information, resources and forms of support are not as available to them as they are to mothers (5). Fathers also feel that they receive less social support during pregnancy and after the birth of the baby than mothers (14 -15). Fathers should be more comprehensively involved in both prenatal and postpartum health care visits, which would promote a sense of father involvement and equal roles in the family (10-13).

There is less research on fathers' views during pregnancy and the period after the baby is born than on mothers' views. For example, there is little research on how fathers feel that healthcare serves them and what can be done to support and increase fathers' participation (1). More research is also needed on fathers' mental health (16-17) and awareness of the importance of fathers for family well-being (15). The well-being of both parents increases the ability to respond to the interaction and care that the child needs. The well-being of parents has long-term effects on the development of the child's brain, emotional life and physical health. Parents should be able to receive support when needed, as it is of great importance in safeguarding the child's development (18).

There is still quite limited amount of research on fatherhood, especially on the healthcare services for fathers, support for fatherhood and increasing fathers' participation (1-2, 19). More awareness of the importance of fathers for family well-being is also needed (15). Increasing research on fathers can provide various healthcare providers with the right tools to engage fathers in everyday life during pregnancy and after the baby is born, which benefits the well-being of the entire family (9).

Research Purpose and Research Questions

This study focuses on fathers. The study is part of an international longitudinal study being conducted in Finland and Japan, on first time parents' experiences on their life. In this sub-study, we aim to describe the experiences of first-time fathers during pregnancy and the first eight months of their baby's life. We will provide information about fathers' experiences that could be utilized in promoting fathers' well-being and increasing their participation, for example, in maternity services, and to better understand fathers' life situations.

1. How do fathers assess family functioning during pregnancy?
2. How do fathers assess family functioning 1–2 months after the baby's birth and how are background variables related to family functioning?
3. How do fathers assess the changing burden of parenting during the first eight months of a baby's life?
4. How do fathers' assessments of parenting burden 6–8 months after the baby's birth relate to background variables?

RESEARCH DATA AND METHODS

Participants

The target group of the study was parents, both of whom were expecting their first child. The data selection criteria were that the pregnancy had to be in the last trimester at the start of the study and the pregnant woman had to live with her married or common-law partner. This study uses the term nuclear family. The pregnant partner had to be a male person, so for this reason the term father was used when analyzing the data. Multiple pregnancies were not accepted for the study. These criteria were taken into account for the sake of a unified culture. The study is part of an international longitudinal study being conducted in Finland and Japan. In Finland, data was collected at nine maternity clinics. Data collection began in September 2019 and was carried out for two years. The study data were collected using questionnaires at three different measurement times. The first questionnaire was answered in the last trimester of pregnancy, the second questionnaire 1–2 months after the baby was born, and the third questionnaire 6–8 months after the baby was born. Both parents were asked to answer the questionnaire, and

they had separate questionnaires at all measurement times. The questionnaires were coded so that the answers could be allocated to each family.

Parents were asked about their willingness to participate in the study at the end of pregnancy clinic visit. Those who were willing received a cover letter and the first questionnaire in paper form. Parents returned the completed questionnaires to the next clinic visit in a sealed envelope for the researchers. The second and third questionnaires were answered electronically in the REDCap system. The cover letter contained instructions for registering in the system, and through the system they received a link to the questionnaires for the second and third stages. The first questionnaire was given to 229 fathers and mothers in the family at the maternity clinic. The overall response rate was 35.6 percent. 79 fathers responded to the first phase of the questionnaire, 53 fathers responded to the second phase, and 44 fathers responded to the third phase. The data for this study include the fathers' responses in every three phases. The analyses were chosen so that the period 1-2 months after the baby was born describes a situation where there may be more changes in family functioning, because the life change with the addition to the family has just occurred. Burden was assessed during the first 8 months, because by then the baby's everyday life has already been experienced to some extent and everyday life has stabilized somewhat.

Procedures

This study has carefully followed the basic principles of scientific practice (20). Research organization granted a research permit for the longitudinal study and the ethics committee issued a positive statement. The rights and human dignity of the individuals participating in the study have been respected throughout the research process. Participation in the study was voluntary and the parents gave informed consent. The data has been collected in a way that does not allow the identity of the participants in the study to be identified. The study was designed to not cause harm or risks to participants or the community. The first questionnaire was accompanied by a cover letter, which provided participants with information about the study and the researchers' contact information. If they wished, participants could discontinue participation at any stage of the study. The research data was collected in three measurement phases, in which the respondent could choose not to answer the surveys in the second and third phases of the study. The respondent could also choose not to answer the measures or individual questions they wanted.

The data consisted of the personal experiences of new fathers, so ethical issues were under consideration throughout the research process. It is important to consider ethical issues, especially in sensitive or private topics, while respecting the experiences of the people being studied. People experience things in different ways and the same topics can evoke different reactions in different people. Responding to surveys can involve similar mental burden and emotional fluctuations as in everyday life (20). Research into everyday life can be challenging because it is related to lived life, individuals' own experiences and interpretations. People experience everyday life in different ways and the researcher must take this into account.

Measure

The participants were asked about their background variables such as age, level of education, family structure, employment status during pregnancy, estimated time, weeks of pregnancy at

the time of the first survey, and annual income. This study used two scales and background variables. These two scales were translated into Finnish according to the official back-translation style.

The Family Function Scale (FFS). Family functioning was used in the first and second research questions. The scale was originally developed in South Korea, and a Japanese version of the FFS scale has been developed on its basis (21). The questionnaire contains 24 questions related to family members living in the same household as the father. All questions in the scale have four response options: 1. not true at all, 2. somewhat true, 3. usually true, 4. always true. The scale contains statements from six different sub-areas, each of which is composed of sum variables. The sub-areas are Family relationships (score: 7–28), Role and Responsibility (score: 4–16), Family Norm (score: 4–16), Financial resources (score: 2–8), Communication (score: 3–12) and Support network (score: 4–16). The higher the score in each of the sub-areas, the better the fathers' experience of family functioning. The Cronbach's alphas for the subscale sums ranged from 0.67 to 0.84 and totaled 0.89, indicating high reliability and validity for the measure. (22) The survey was administered at all measurement stages, during pregnancy, 1–2 months, and 6–8 months postpartum. This article describes responses 1-2 months after the birth of a baby, because at that time there are more changes in the functioning of the family, because the life change with the addition to the family has just occurred.

The Sense of Parenting Burden Scale (SPBS). The third and fourth research questions describe the burden of parenting experienced by fathers. The scales developed by the Japanese Nakajima et al. (23). The scale detects a parent's negative feelings towards the child and the limitation of the parent's social activities due to raising the child (23). The questionnaire examined fathers' feelings based on eight different questions related to the fathers' experience of privacy, freedom, housework burden, their own hobbies and irritability caused by the child. The answer options on the form are 1) never, 2) rarely, 3) sometimes, 4) frequently and 5) all the time. Each of the answers is scored between 0 and 4, with the highest possible total score being 32. The higher the score in the questionnaire, the higher the perceived burden of parenting. (23.) The survey was conducted in two measurement phases: 1–2 months and 6–8 months after childbirth. This article describes responses to burden in the first 8 months of life, because by then the baby's daily life has already been lived to some extent and has stabilized somewhat.

Data Analysis

Fathers' assessments of their everyday lives were examined using the FFS and SPBS measures. The background variables used were fathers' age, highest level of education, employment status during the waiting period and annual income. The five categories of the highest level of education were reclassified into three categories due to the small sample sizes of the categories. In order to clarify the analysis and to form larger class sizes, employment status and annual income were also reclassified into two categories. Age was asked with open questions and was classified into three categories. The fathers' background information was also described using original classification for each measurement phase, so that the participants' data could be understood as comprehensively as possible even without any classifications (Tables 1). The fathers' background information was described with frequencies and percentages. Sum variables were formed for each of the six subscales of the FFS measure (family relationships, roles and responsibilities, family norms, financial support, communication, and support

network). The SPBS measure was formed into one sum variable. The sum variables were created by adding up the statements that measured the same phenomenon and dividing them by the number of questions. The reliability and internal consistency of the sum variables were examined using Cronbach's alpha (α), which is considered good when it is >0.70 and acceptable when it is $0.60-0.69$ (24). To determine the shape of the distributions of the sum variables, histograms, mean and standard deviations, kurtosis and skewness values, and the Kolmogorov-Smirnov test were examined. The distributions of the sum variables of the FFS measure was found to be skewed, so fathers' assessments of family functioning were described with medians (md) and lower and upper quartiles (Q1, Q3). The distribution of the SPBS measure was found to be normally distributed, so the values were described with means and standard deviations (s).

Parametric and non-parametric tests are used to examine the association between sum variables and background variables. The tests are selected based on the measurement levels of the variables and the shape of the distribution. (25) All background variables were qualitative variables due to the classifications and the sum variables were quantitative variables. The distributions of the sum variables were examined separately in each background variable category. The distributions of the sum variables of the FFS measure was found to be skewed in most of the background variable categories. All categories had small sample sizes, less than 30 respondents, which also supported the choice of a non-parametric test. Based on these, medians and lower and upper quartiles were used to describe sum variables. To test the differences in sum variables between categories of background variables, Mann-Whitney U test (for two categories) or Kruskal-Wallis H test (for three categories) were used. The distribution of the sum variable of the SPBS measure was normal in each background variable category, so SPBS sum score was described by means and standard deviations. To study the change in SPBS between 1-2 months and 6-8 months, paired t-test was used. Association between background variables and SPBS sum score were analyzed using t-test (two categories) or ANOVA (three categories). The significance level was chosen to be 0.05 (25). The results were analyzed using the SPSS 29 for Windows program.

RESULTS

Background information on the fathers (Table 1) was collected in connection with the first survey. The average age of the fathers who responded to the survey was approximately 31.8 years. The most common level of education of the fathers was a lower university degree (35%). The majority of the fathers had a permanent full-time job during the waiting period (74%).

Table 1: Background information of fathers

	pregnancy		child 1-2 month		child 6-8 month	
	n=79		n=53		n=44	
	n	%	n	%	n	%
Age						
20-24	7	9	5	9,4	3	7,0
25-29	18	23,1	13	24,6	12	27,2
30-34	28	35,9	19	35,8	15	34,1
35-39	15	19,2	10	18,9	9	20,5
40 or more	10	12,8	6	11,3	5	11,4

Highest level of education						
grammar school	1	1,3	1	1,9	1	2,3
secondary degree	24	30,8	15	28,8	11	25,6
lower university degree	27	34,6	15	28,8	13	30,2
higher university degree	26	33,3	21	40,5	18	41,9
Work situation during the pregnancy						
unemployed	3	3,8	2	3,8	2	4,5
permanent full-time job	58	74,4	39	75	32	72,7
part-time job	6	7,7	4	7,7	3	6,8
student	6	7,7	4	7,7	4	9,1
entrepreneur	2	2,6	2	3,9	2	4,5
other	3	3,8	1	1,9	1	2,2
Annual income						
20 000 or less	11	14,5	7	13,7	6	14,3
20 000–40 000	29	38,2	19	37,3	14	33,3
40 000–60 000	24	31,6	17	33,3	16	38,1
60 000–80 000	8	10,5	6	11,8	4	9,5
100 000 or more	4	5,3	2	3,9	2	4,8

Fathers' Assessments of Family Functioning and Associations to Background Variables

Fathers' assessments of family functioning were examined using the FFS scale and the scores for the subscales are described in Table 2. Fathers assessed their experience of family functioning during pregnancy as good overall. Fathers assessed their experience of family relationships, roles and responsibilities, and the possibility of receiving financial support as good. Fathers assessed their experience of family norms and support networks as quite good. They assessed communication between parents during pregnancy as very good. In the second measurement phase, 1–2 months after the baby's birth, fathers also assessed their experience of family functioning as quite good, although the assessments of some subscales had decreased slightly from the time of pregnancy. Fathers assessed their experience of family support networks as slightly better than during pregnancy (Table 2).

Table 2: Fathers' assessments of family functioning and the reliability of sum variables

Family functioning FFS					
	n	md	Q ₁	Q ₃	Cronbach alfa (α)
Relationship within family¹					
during the pregnancy	79	27	25	27	0,769
1–2 month after baby was born	53	26	24	27	0,866
Roles and responsibilities²					
during the pregnancy	79	14	13	15	0,667
1–2 month after baby was born	53	13	12	14,50	0,727
Family norms³					
during the pregnancy	79	13	12	15	0,738
1–2 month after baby was born	53	13	11	14	0,674
Financial support⁴					
during the pregnancy	79	7	6	8	0,862
1–2 month after baby was born	53	7	6	8	0,793
Communication⁵					

during the pregnancy	79	12	11	12	0,688
1-2 month after baby was born	53	11	10	12	0,814
Social support⁶					
during the pregnancy	79	13	12	15	0,773
1-2 month after baby was born	53	14	12	15	0,728

The range of scores for the subscales are: ¹ family relationships 7–28, ² roles and responsibilities 4–16, ³ family norms 4–16, ⁴ financial support 2–8, ⁵ communication 3–12 and ⁶ support network 4–16. The higher the score, the better the fathers' assessment of the family's functioning. Scores: very good (full points), good (1–2 points from full), fairly good (3 points short of full) *Cronbach alpha (α), i.e. consistency of the sum variables: good >0.7, acceptable >0.6

Assessments of family functioning and background variables made 1–2 months after the baby's birth were examined separately for each family functioning domain. The associations of background variables with family functioning domains are described in Tables 3a and 3b. There were no statistically significant associations between background variables and family relationships. The only statistical significance was in the experience of family support networks assessed by fathers in permanent full-time employment ($p=0.044$). (Table 3a and 3b.)

Table 3a: Association between background variables and family functions (1–2 months after the baby is born)

Background variables	Relationship within family					Roles and responsibilities					Family norms				
	n	md	Q ₁	Q ₃	p-value	n	md	Q ₁	Q ₃	p-value	n	md	Q ₁	Q ₃	p-value
Age					0,082 ¹					0,671 ¹					0,184 ¹
21–29	18	26	24,75	27,25		18	13	12	15		18	13	11,75	14,25	
30–39	29	26	22	27		29	13	12	15		29	12	11	14	
40 or more	6	23,5	21,75	25,5		6	13	11,75	13,25		6	12	10,75	12,25	
Highest level of education					0,185 ¹					0,157 ¹					0,694 ¹
Grammar school or secondary degree	16	25	22,25	26,75		16	12,5	11,25	13,75		16	12	11	13	
Lower university degree	15	27	24	28		15	14	12	15		15	13	12	14	
Higher university degree	21	25	23,5	27		21	13	13	14		21	13	11	14	
Work situation during the pregnancy					0,708 ²										0,448 ²
Permanent full time job	39	26	22	27		39	13	12	14	0,271 ²	39	13	11	14	
Something else than permanent full-time job	13	25	24	27		13	13	12,5	15		13	12	11	13,5	
Annual income					0,634 ²										0,661 ²
<40 000 euro	26	25	24	27		26	13	12	15	0,840 ²	26	12,5	11	14	
>40 000 euro	25	26	22	27		25	13	12	14,5		25	13	11	14,5	

¹ Kruskal- Wallis H- testi ² Mann-Whitney U-testi, The scores for the subscale are: Relationship within family 7–28, Roles and responsibilities 4–16 and Family norms 4–16. The higher the score, the better the fathers' experiences were.

Table 3b: Association between background variables and family functions (1–2 months after the baby is born)

Background variables	Financial support					Communication					Social support				
	n	md	Q ₁	Q ₃	p-value	n	md	Q ₁	Q ₃	p-value	n	md	Q ₁	Q ₃	p-value
Age					0,823 ¹					0,792 ¹					0,229 ¹
21–29	18	7,5	6	8		18	11	10	12		18	14	13	15	
30–39	29	7	6	8		29	12	10	12		29	13	11	15	
40 or more	6	6,5	5,75	8		6	10	9,75	12		6	14	12,25	15	
Highest level of education					0,923 ¹					0,170 ¹					0,262 ¹
Grammar school or secondary degree	16	7,5	6	8		16	10	9,25	11,75		16	13,5	11	14,75	
Lower university degree	15	6	6	8		15	12	10	12		15	14	13	16	
Higher university degree	21	7	6	8		21	12	10	12		21	14	11,5	15	
Work situation during the pregnancy					0.166 ²					0.096 ²					0.044 ²
Permanent full-time job	39	6	6	8		39	11	10	12		39	13	11	15	
Something else than permanent full-time job	13	8	6,5	8		13	12	10,50	12		13	15	14	15	
Annual income					0,583 ²					0.598 ²					0.294 ²
<40 000 euro	26	7,5	6	8		26	11,5	10	12		26	14	13	15	
>40 000 euro	25	7	6	8		25	11	9,50	12		25	13	11	15	

¹ Kruskal- Wallis H- testi ² Mann-Whitney U-testi, The scores for the subscale are: Financial support 2–8, Communication 3–12 and Social support 4–16. The higher the score, the better the fathers' experiences were.

Fathers' Perceptions of Parenting Burden and Associations to Background Variables

Fathers perceived parenting burden to be quite low 1–2 months and 6–8 months after the baby's birth (Table 4).

Table 4: The burden of parenting experienced by fathers and the reliability of sum variables

Burden of parenting						
	n	ka	s	min	max	Cronbach alfa (α)*
1–2 month after baby was born	53	6	4	0	15	0,768
6–8 month after baby was born	43	6,3	4,1	0	16	0,766

Points on a scale of 0–32. The higher the score in the survey, the higher the perceived burden of parenting.

*Cronbach alpha (α), i.e. consistency of the sum variables: good >0.7, acceptable >0.6

The change was examined in fathers who had responded to this questionnaire 1–2 months and 6–8 months after the birth of the baby (n=43). Fathers experienced the burden of parenting 6–8 months after the birth of the baby to be statistically significantly greater (p=0.042) than 1–2 months after the birth of the baby. However, the burden of parenting experienced by fathers was quite low in both measurement periods. Burden of parenting 1-2 months after baby was born is ka 5.4 (s 3.9) and 6-8 month after baby was born mean 6.3 (s 4.1) (test quantity -2.093; df 42). Points on a scale was of 0–32. The higher the score is in the survey, the higher the perceived burden of parenting can be assessed. The association of background variables with perceived parenting burden 6–8 months after the birth of the baby is described in Table 5. The background variables had no statistically significant associations with perceived parenting burden.

Table 5: The connection of background variables to the perceived burden of parenting (6–8 months after the baby was born)

Background variables	n	ka	s	p-value
Age				0,369 ¹
21–29	15	7,1	3,5	
30–39	23	5,5	4	
40 or more	5	7,6	6,2	
Highest level of education				0,162 ¹
grammar school or secondary degree	11	4,7	2,9	
lower university degree	13	6	3,6	
higher university degree	18	7,7	4,9	
Work situation during the pregnancy				0,872 ²
permanent full-time job	31	6,4	4,0	
something else than full-time job	11	6,1	4,8	
Annual income				0,139 ²
<40 000 euroa	20	5,4	3,4	
>40 000 euroa	21	7,3	4,7	

¹ Anova, ² T-test, Points on a scale of 0–32. The higher the score in the survey, the higher the burden of parenting can be assessed.

DISCUSSION

The aim of the study was to obtain information about fathers' experiences that could be used to promote fathers' well-being and increase their participation in, for example, prenatal care services, and to better understand fathers' life situations. The analyses were chosen so that the period 1–2 months after the baby was born describes a situation where there may be more changes in family functioning, because the life change with the addition to the family has just occurred. The aim was to study the change in burden during the first 8 months, because by then the baby's everyday life has already been experienced to some extent and everyday life has stabilized somewhat.

Fathers' Assessments of Family Functioning

In the study, fathers assessed their overall experience of family functioning during pregnancy and 1–2 months after the baby's birth as quite good. Assessments of family relationships, roles and responsibilities, and communication had decreased slightly since pregnancy. Similar results have also been obtained from other studies. According to a study by Lammi-Taskula and Salmi (26), after the birth of a new family member, everyday life is often perceived as more demanding and spouses do not have as much time for each other as before the baby's birth. Bäckström et al. (14, 27) also state that during the first six months of a baby's life, the quality of the relationship is often perceived to have deteriorated, although the parents' sense of belonging generally improved.

The background variables did not seem to have much of a connection with family relationships. However, fathers aged 40 and older perceived family relationships to be weaker on average than younger fathers. According to the FinLapset survey, the corona pandemic increased family time together, especially in families where fathers switched to remote work. As many as 67 percent of fathers who switched to remote work felt that family time together had increased. According to 49 percent of all fathers who responded to the survey, family time together had

increased due to the corona pandemic. (28) Increasing family time together can be good for relationships within the family, but it can certainly also have negative effects, for example, increasing disagreements. Fathers assessed roles and responsibilities as clear during pregnancy and 1–2 months after the baby's birth. Gemayel et al. (29) study, fathers do not usually have a clear view of their future role as a father during pregnancy, but after the baby is born, the roles and responsibilities become clearer. The content of fatherhood has diversified and, in addition to the role of provider, fatherhood now also essentially includes caring for, raising, partnering with and expectations of a present father (4). When examining the connections between background variables, it emerged that educational background seems to have a positive effect on perceptions of the roles and responsibilities of fatherhood. Those with a lower and higher university degree have better experiences of family roles and responsibilities on average than those with a lower degree. Also, in a study by Durmaz, Bas, and Gumus (30), fathers' perceptions of the role of fatherhood were found to increase in line with their educational background. Their study also found that a better job situation and higher income are associated with a clearer perception of the role as a father (30). This study did not show a connection between employment status and income and clearer perceptions of family roles and responsibilities.

Fathers assessed family norms as being quite clear during pregnancy and 1–2 months after the baby was born. Background variables did not seem to have much of a connection with family norms. Family norms were assessed as slightly clearer by younger fathers and fathers in permanent full-time employment. Fathers assessed the possibility of receiving financial support during pregnancy and after the baby was born as good. Background variables did not seem to have much of a connection with the financial support received by the family. Older fathers and fathers in permanent full-time employment felt that they received slightly less financial support. It may be that older fathers and fathers in permanent full-time employment do not feel that they need less financial support for their family life, as wealth is probably better.

Fathers rated communication between parents as very good during pregnancy and good 1–2 months after the baby is born. The fathers' age, level of education and employment status seem to have some connection with communication between parents. The oldest fathers, those with the lowest level of education and those in permanent full-time employment felt that communication was the weakest. It may be that younger fathers have learned to talk more openly about things, which also makes it easier to resolve unpleasant matters and problems. According to Widarsson, et al. (6), open and healthy communication between parents is very important for the functioning and well-being of the family.

Fathers rated their support network as quite good during pregnancy and good 1–2 months after the baby is born. According to the study, fathers' employment status seems to have a connection with their experience of family support networks, as those in permanent full-time employment rate their experience of family support networks as weaker. It may be that fathers in non-permanent full-time employment have more time to stay in touch with loved ones than fathers in full-time employment, who may have less free time. The results were somewhat contradictory, as fathers who earn more perceived their support network to be slightly better. On the other hand, according to Lähteenmäki (2), fathers in a better socioeconomic position also feel that they need less help from outside the family. The same study showed that

grandparents are considered the primary source of support (2). According to Widarsson, et al. (6), fathers feel that their spouse is their greatest support in raising a family with children. The results of this study may have been influenced by the restrictions imposed by the coronavirus, which may have limited contact with loved ones. According to the Finlapset study, contact with the baby's grandparents decreased by 41 percent and with friends by 58 percent of fathers due to the coronavirus pandemic (28). Bäckström et al. (14) study found that fathers feel they receive less social support during pregnancy and after the birth of their baby than mothers.

Fathers' Assessments of the Burden of Parenting

The parenting burden experienced by fathers was examined using the Sense of Parenting Burden Scale (SPBS). According to this study, fathers' experience increased in the burden of parenting during the first eight months of a baby's life. They experienced the burden of parenting as heavier 6–8 months after the baby's birth than 1–2 months after the baby's birth. However, the burden of parenting was quite low in both measurement stages. According to the Finlapset survey conducted during the corona pandemic, 29 percent of fathers had symptoms of parenting-related exhaustion. Five percent had severe symptoms. (28) According to a study by Lepistö et al. (31), parents are usually concerned about coping with their own or their spouse's everyday life, such as feelings of anxiety and fatigue, as well as the hustle and bustle of everyday life and placing excessive demands on themselves. Parents are also concerned about time management issues, such as the sufficiency of available time, the reconciliation of work and family life, the equal distribution of childcare and the sufficiency of time for the relationship. (31) The result obtained in this study regarding the increase in the burden of parenting may be due to the fact that 6–8 months after the birth of a baby, life in families has already begun to become somewhat routine and the above-mentioned concerns may have become relevant. When the baby is 1–2 months old, new fathers may still be in the “baby bubble”, which may make parenting even less burdensome. According to Klemetti et al. (19), seven percent of non-parental parents of 3–4-month-old babies experience their baby as more demanding than average. If the baby is perceived as very demanding, the father's physical and mental burden increases (29).

Background variables appear to be related to fathers' assessments of the burden of parenting. According to the results, parenting was perceived as more burdensome the better the fathers' socioeconomic status. Fathers aged 40 and over, with a higher education degree, in permanent full-time employment and earning more than 40,000 euros per year found parenting to be the most burdensome. Matvienko-Sikar et al. (32) have studied factors affecting parenting stress when the baby is nine months old. Their study found different results, indicating that the fathers' level of education, occupation and income did not affect the stress experienced by fathers. However, according to several studies, fathers' experiences of stress and challenges from their financial situation increase their burden in everyday life and increase depressive symptoms (11, 31, 33-34). Based on these studies, one could think that fathers' experiences of stress from their financial situation and, consequently, their experience of burden in everyday life would be greater the weaker the employment situation and the lower the family's income. However, the opposite results were obtained in this study. According to the results obtained, fathers in permanent full-time employment find parenthood more burdensome than those in non-permanent full-time employment. Lammi-Taskula and Salmi (26) have stated that the demands of working life are related to parents' coping. Klemetti et al. (19) study, one in ten

fathers felt that gainful employment was a burden on family life. It is possible that more highly educated, better paid and permanently employed fathers experience parenthood as a more burdensome issue, partly due to feelings of inadequacy arising from combining work and family life. According to Klemetti (19), 14 percent experience feelings of inadequacy as a parent. Most fathers would like to spend more time with their baby (34).

Limitations

The background variables were found to be similar to the average age of first-time fathers in Finland (35). This may strengthen the generalizability of the study results to the target group of interest. Due to the relatively small sample size, the background variables were reclassified. A different classification could have resulted in slightly different results. The reclassification of the background variables was based on previous research literature, the help of a statistical expert and the researchers' views on the subject.

The sample size of the study is quite small in a study conducted using statistical methods, which may affect the reliability of the results (25). The response rate of those who responded to the study was quite low, 35.6 percent in total. Non-response to the survey may bias the results, as fathers who did not respond are probably different in some characteristics from fathers who responded (25). 79 fathers participated in the first phase of the study, 53 fathers in the second phase and 44 fathers in the final phase, i.e. the dropout occurred mainly between the fathers who responded to the first and second questionnaires. Judging by the dropout, it is possible that the respondents were mainly well-off fathers who had sufficient resources to participate in the study. This is also indicated by the fact that the data was mainly focused on well-educated fathers, as most of the fathers who responded to the questionnaires had completed higher education. The surveys were conducted during the pregnancy and baby years, when fathers may have been burdened by their new everyday life and role as fathers. This may have affected the fathers' willingness to participate in the study and continue to the next phases of the study. The possible accumulation of well-being as part of the research data may partly distort the results of the study and thus weaken the reliability of the study. The long survey form and several measurement phases may also have had an impact on the parents' willingness and ability to participate in the study. In this study, a lower number of fathers scored as depressed than other studies have found for first-time fathers. This may confirm that fathers who are better able to respond to the study have been selected.

The data used in the study may have been affected by the global COVID-19 pandemic, which began during the study data collection. The pandemic has had both positive and negative effects on the well-being of families with babies. The COVID-19 pandemic may have had an impact on the responses and the number of respondents. The data was collected in the first phase of the survey using a paper questionnaire and in the following two phases using an electronic questionnaire, due to the COVID-19 pandemic. It may be more pleasant to answer a paper questionnaire, but due to the exceptional situation, the use of paper questionnaires was limited. For the second and third surveys, fathers also had to register themselves in the electronic system, which may have contributed to the reduced number of respondents. On the other hand, the advantage of electronic questionnaires has been found to be fewer missing data compared to information collected using paper questionnaires (36).

CONCLUSIONS

The study provided information about fathers' experiences on their family functioning and burden during pregnancy and 1–2 months and 6–8 months after the baby's birth. Fathers assessed family functioning as fairly good during pregnancy and after the baby's birth. Some aspects of family functioning deteriorated after the baby was born, but the assessments generally remained good. Fathers assessed parenting burden to increase statistically significantly during the baby's first eight months of life, although the burden was still quite low. However, this increase should be noticed as a possible support need in services for new parents. Given the increasing burden experienced by fathers, greater attention should be paid to their well-being. Maternity and child health services should systematically assess fathers' experiences, coping, and mood, provide appropriate support, and raise awareness already during the prenatal period. Providing new fathers with a brief guide or a short preparatory session on potential challenges that may arise during the first year after childbirth could be a valuable addition to existing perinatal support services.

Background variables, i.e., fathers' age, level of education, employment status and annual income, did not have statistically significant connections with family functioning or burden, although small connections were found between some sub-areas and background variables. The only statistical significance was found between the family support network and the work situation, so that fathers in permanent full-time employment assessed their support networks as weaker than fathers in non-permanent full-time employment. This study also did not examine the factors related to the burden experienced by fathers. The factors behind the experience of burden should first be identified so that they can also be prevented more effectively. It would be important to study what kind of concerns, challenges and stressors fathers experience in their everyday lives both during pregnancy and after the birth of the baby. The corona period created long-term restrictions in the lives of families with young children, limiting social contacts in many different areas of life, for example contact with grandparents. The lack of support opportunities during the corona pandemic may still be reflected in families with young children in the long term as increasing support needs. In the future, it could also be studied how any accentuated support needs appear from the perspective of fatherhood.

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